



Republic of Yemen

**Ministry of Public Health & population
Development And Planning Sector
*Research Center***

**Abstracts Of
Yemeni Health and Medical
Research**

2000-2005



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مقدمة :-

إن فكرة تنفيذ هذا الكتاب جاءت في إطار حرص قيادة وزارة الصحة العامة والسكان ممثلة بمركز البحوث والدراسات والتوثيق على تطوير خدمات المعلومات في مجال البحوث الطبية والصحية في اليمن، حيث كان الهدف الأساسي لهذا العمل الجمع والتوثيق والتعريف بملخصات البحوث والعمل على نشر نتائجها لتصل إلى جمهور واسع من المستفيدين منها. بالإضافة إلى أن هذا الكتاب ييسر على الباحثين الإلمام بالمستجدات من البحوث والدراسات في مجال تخصصه وتوفر عليه الكثير من الوقت والجهد.

وقد كان لمنظمة الصحة العالمية دور فعال في تمويل إعداد هذا الكتاب كمرحلة أولى حيث أنه لا يزال هناك الكثير من ملخصات البحوث التي لم تتمكن من الحصول عليها بيسر وضمها إلى هذا الجهد ولكن نأمل أن يتم جمعها في مرحلة ثانية انشأ الله .

ومن الجدير ذكره أنه كان من الصعب عند جمع مادة هذا الكتاب من مصادرها المختلفة تحديد جميع جهات التمويل لهذه البحوث غير أن معظم التمويل للعديد من الدراسات والأبحاث التي يتضمنها هذا الكتاب كان تمويلها من قبل منظمات الأمم المتحدة ومنها منظمة الصحة العالمية ومنظمة اليونيسيف والاتحاد الأوروبي ، وفيما يتعلق بالبحوث المراجعة يمكن الرجوع إلى الإشارة المصدرية الموضوعية في كل ملخص (SOURCE). ويضم هذا الكتاب مائتان وثمانية وعشرون ملخصاً بحثياً خلال الفترة 2000 إلى 2005 ، وكان يقتضي تصنيف مادة الكتاب حسب التخصصات الطبية غير أن عمل مثل هذا يستدعي الكثير من التفرعات الغير المناسبة مما استدعى الأمر تحزيم مادة الكتاب في ثلاثة أفرع هي الصحة العامة ، الأمراض المعدية ، الأمراض الغير معدية.

و في الأخير نقدم الشكر و التقدير لكل من مول أو ساهم في أعداد وإصدار هذا العمل.



أ.د/عبدالكريم يحيى راصح

وزير الصحة العامة والسكان

أصدار كتاب البحوث بما يحويه من ملخصات للأبحاث والدراسات الصحية والطبية يعتبر خطوة هامة في سلسلة الخطوات التي تحطوها الوزارة من خلال مركز البحوث والتوثيق وبالتعاون مع منظمة الصحة العالمية ، وذلك باتجاه تحقيق الأهداف العامة لنظامنا الصحي . وسعيًا لتحقيق الهدف المباشر لمركز البحوث والتمثل بتقوية قدرات البحث العلمي في أنشطة القطاع الصحي والطبي ، وتنمية مهارات ومعارف الكوادر الصحية على أعداد وتنفيذ البحوث والدراسات الصحية والطبية وفق الأسس المنهجية والموجهة نحو المشكلات الصحية ذات الأولوية. كما يعتبر إصدار هذا الكتاب إضافة مرجعية وتوثيقية هامة للأنشطة البحثية الصحية والطبية للباحثين اليمنيين ، ومصدرًا موثوقًا للمعلومات تساعد الأطباء والطلاب وهيتيه التدريس والمهتمين عموماً وبالأخص القيادات الصحية التخطيطية ومتخذي القرار والباحثين في الحصول على المعلومات المرجعية العلمية الموثقة بعد أن كان الحصول على المعلومة المحلية يقتضي من الباحث السعي في الجهول عن أية دراسات أو بحوث لها علاقة ببحثه . وينبغي أن نشير في هذه المقدمة إلى الجهد المبذول في إعداد وإخراج هذا الكتاب المرجعي والذي اقتضى تنفيذه البحث في كل المصادر الخلية و الخارجية سعياً للحصول على ما أمكن من الأبحاث من المصادر المتاحة و المتعاونة في فترة محدودة، و نأمل أن يكون لهذا الجهد نصيباً من الفائدة لدى المهتمين والباحثين والاستفادة منه والعمل على استكمال بقية الخطوات التي تسعى الوزارة من خلال المركز لتحقيقها بهدف تقوية قدرات البحوث الصحية والطبية لنظامنا الصحي والطبي .



أ.د/عبدالمجيد الخليدي

وكيل قطاع التخطيط والتنمية

لا شك أن الإقرار بضرورة تفعيل جانب العلم والبحث العلمي في محاولتنا لفهم تراكيب ومكونات وأسباب جملة المشكلات في نظامنا الصحي وبرامجه يعتبر خطوة عملية في المسار الصحيح في سعينا لتجاوز تلك المشكلات والمعوقات بأقل التكاليف والوقت وبهدف تجويد وتنمير الأداء وتحقيق النتائج المنشودة.

لذلك اعتمدت الوزارة في خططها الخمسية الثانية والثالثة ، تفعيل هذا الجانب من خلال بناء قدرات البحث العلمي للقطاع الصحي وتوفير المتطلبات المادية والبشرية ويعتبر هذا الكتاب الذين بين أيدينا إحدى هذه الخطوات الأساسية في تجميع ملخصات ونتائج البحوث الصحية والطبية للباحثين اليمنيين كمرجعية للمصادر الأساسية للأبحاث المنجزة خلال الأعوام 2000-2005 وسبقت هذه الخطوات خطوات في ذات الاتجاه تمثلت في : اعداد برنامج تدريبي للاطباء والكوادر الفنية والإدارية على التصميم المنهجي والتنفيذ لبحوث النظم الصحية حيث استفاد من هذه البرنامج اكثر من 220 طبيب وطبيبة وكادر فني وإداري في قطاع الصحة لمختلف المحافظات ..

بالإضافة على ذلك تم وضع وثيقة البحوث الصحية (السياسات والاستراتيجيات والأولويات) .. كما تم اصدار مجلة تعنى بالبحوث الصحية والطبية وتسهم في نتائج البحوث التي يتم تنفيذها من قبل الباحث اليمني ... كما تطوير مكتبة طبية وصحية مرجعية تعتمد على الوسائل الحديثة في الحصول على المعلومات عبر الشبكات الطبية المتخصصة ... إضافة الى ما يتوفر من المراجع الطبية ذات الصلة بالصحة العامة والتنمية الصحية .. كما تم إدخال نظام التوثيق الآلي حيث تم التوثيق أكثر من 600 وثيقة تشمل البحوث والتقارير الفنية وتعتبر هذه الخطوات جزء من السعي في بناء القدرات والبحث العلمي في القطاع الصحي.

والله الموفق ..

Clarification:

It was necessary when we started to prepare this book to put a plan defining the goal. This is finding a reference book that contains the summary of medical and health research and studies that were carried out by Yemeni researchers during 2000-2005 as a first step.

Moreover, it was necessary to define the sources of our book content which were:

1. Magazines and journals produced by universities of Sana'a –Aden-Hadramout.
2. Medical scientific documents / science conferences prepared by the Yemeni scientific research foundation.
3. Global information network (Hinari – pubmed) and others .
4. Research and studies published in Yemen health and medical research journal.
5. The researcher who documented his\her research in the documentation department in the research centre - MoPH&P.

We did our best to collect all researches and studies implemented in Yemen from these sources. But we are sure that many of researches and studies are not included in this book. However, we are going to develop this book so it contains all the researches and studies implemented in our country.

At last we hope that this book will be the first reference book in research and studies to helps all researcher.

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Public Health

1) Title: Coverage and Perceptions of Medical Sciences Students towards Hepatitis B Virus Vaccine in Sana'a City, Yemen

Authors : Raja'a YA, Saeed GG, Al-Hattami AA, Al-Asadi MH, Mohammad AA, Ahmed AA, Al-Ammari NM.

Date: 2000

Source: Saudi: med. J.2002 Oct; 23 (10): 1222-6.

Abstract

Objective: The present study was conducted to estimate vaccination coverage against hepatitis B virus and the perceptions of 1198 medical sciences students in Sana'a City, Yemen.

Methods: Only those who practice clinical training or are in contact with body fluids were included. The students were enrolled in the Faculty of Medicine and Health Sciences, Sana'a University, Republic of Yemen. Data was collected from 1999-2000. Arabic pre-tested questionnaire forms were completed by 840 students at a response rate of 70.6%.

Results: The study revealed a reported vaccination rate of 29.5%. The rate among Faculty of Medicine and Health Sciences students was 32.3%, whereas only 21.3% among the students of High Institute of Health Sciences. Students of dentistry attained the highest rate of vaccination (38.8%), while nursing students of the High Institute of Health Sciences achieved the lowest rate (17.1%). Rate of vaccination (46.6%) among female students was significantly higher than male students (22.3%) with a P- value of 0.0001. Medical assistants of the High Institute of Health Sciences scored the best (56%) in terms of knowledge, medical laboratory sciences students achieved the highest (43.6%) in attitude and dentistry students had the highest scores (35.5%) in practices. The mean knowledge of females and males was comparable, however, females achieved higher attitudes and practices. Final stage students attained better attitude scores than the pre-final and intermediate students.

Conclusion: Vaccination coverage of medical sciences students in Sana'a City, Yemen is low. Knowledge of medical assistants is the best, attitude of medical

Laboratory sciences students and practices of dental students is the highest. Attitudes and practices of female students are better than that of males.

2) Title: Nutritional Status of Yemeni Schoolchildren in Al-Mahweet Governorate

Authors : Raja' a YA, Suleiman SM, Elkarib SA, Mubarak JS.

Date: 2000

Source: Mediator Health J.2001 Jan -Mar; 7 (1-2): 204-10

Abstract

The nutritional status of 948 children selected randomly from Al-Mahweet Governorate schools was investigated. Age range was 5-18 years with a mean of 10.6 +/- 2.8 years. Among the children, 3.4% had depleted iron and 43.4% had below average skin-fold thickness. Approximately half of the children were either stunted or chronically underweight and 1 child in 20 was underfed. Depleted fat stores affected two-fifths of the children and approximately one-fifth were anemic. Urban residents scored significantly higher on nutritional parameters than rural children. Serum ferritin levels were significantly greater among males than females whereas mean height-for-age, weight-for-age and skin-fold thickness were lower.

3) Title: Rate and Risk Factors of Surgical Site Infections with Antibiotic Prophylaxis

Author: Raja'a YA, Salam AR, Salih YA, Salman MS, Al-Baseer LS, Al- Kirshi NA, Al-Jalal NS.

Date: 2001

Source: Saudi Med J .2002 Jun; 23(6):672-4

Abstract

Objective: This study is aimed at determining the incidence of surgical site infections, with antibiotic use. Furthermore, to correlate infection with type of operations, length of intervention, number of stitches, pre-operative hospitalization, age and sex of the patient.

Methods: All Yemeni patients (N=601) who underwent surgical intervention, with preoperative antibiotic prophylaxis, at Al-Kuwait University Hospital, Sana'a, Republic of Yemen, during 1st August 2000 through to 30th November 2000 were followed up until stitch removal or discharge. Data was registered in a spreadsheet and processed statistically by statistical package for social sciences 10.0.

Results: Overall incidence of surgical site infections was 2.2%, 0.5% in clean operation, 2.8% in clean contaminated, 9.1% in contaminated and 2.3% in dirty operations. Surgical site infections were found positively correlated with duration of operation (P=0.015) and number of stitches (P=0.017), but insignificantly associated with sex, age, type of operation and pre-operative hospitalization.

Conclusion: In conclusion, surgical site infections, with antibiotic use, were found low. Higher number of stitches and longer duration of operation were the risk factors.

4) Title: Therapeutic Itineraries in a Global World: Yemenis and Their Search for Biomedical Treatment Abroad

Author: Kangas B.

Date: 2001

Source: Med Anthropol J .2002 Jan -Mar; 21(1):35-78

Abstract

Focusing upon how Yemenis travel to Jordan and other countries for medical reasons, this article explores a variety of issues and experiences pertaining to care-seeking abroad. Topics include state support for treatment outside the country, links between countries that facilitate movements, therapeutic reputations leading to destination selection, medical travelers' funding and logistical decisions, and notions of "good" patient care. The study is set within a context of increasing globalization, where advances in communication, transportation, and medical devices and procedures all contribute to people's ideas about where to go for medical care. As such, it extends care-seeking research beyond local services and national boundaries.

5) Title: A Study of Dermatophytoses in Sana'a, Yemen Republic

Author: Mahmoud AL.

Date: 2001

Source: Mycoses 2002 Apr; 45(3-4):105-8

Abstract

The present study describes the extent and causative agents of dermatophytoses in Sana'a, the capital of Yemen Republic. Out of 1100 patients with various skin diseases, 16.6% were affected with dermatophytoses. Among them, 70% were male and the age group 11-20 years was most susceptible to tinea infections. Tinea corporis was the most common disease, followed by tinea capitis. One hundred and seventy isolates of dermatophytes related to 9 species were identified. *Microsporum canis* was the most prevalent species, followed by *Trichophyton violaceum*.

6) Title: Causal Models for Road Accident Fatalities in Yemen

Authors: Ameen JRM, Naji JA.

Date: 2000

Source: Accid Anal Prev. J. 2001 Jul; 33(4):547-61

Abstract

An identification of the causes of road accident fatalities is becoming more important with the growth of technology, population, number of vehicles and the need for their use. Many authors have addressed the problem in the past but no universal findings have been obtained. The problem tends to be different under different environments and for different geographical regions. The aim of this paper is to develop a model for the analysis and forecasting of road accident fatalities in Yemen considering data restrictions. The proposed data has a particular structure of accident occurrence that has not been reported in any existing research using data in other countries. The available data for the period 1978-1995 is used to build models to understand the nature and extent of the causes of fatalities. Part of the data is used for model building and part of it for test purposes. The issues of correlation and causality have been addressed and multiple collinearity is investigated and dealt with. Two alternative models are proposed based on both statistical grounds and that of practicality in viable decision making. The influence of consuming a locally grown stimulant called Qat on road users has been addressed and it is found that it increases the risk of accidents. This is not the common understanding within the authorities in Yemen as growing and consuming Qat is unregulated.

7) Title: Clinical and Experimental Evaluation of the Effect of Khat-Induced Myocardial Infarction

Authors: Alkadi HO, Noman MA, Al-Thobhani AK, Al-Mekhlafi FS, and Raj a'a YA.

Date: 2001

Source: Saudi Med J. 2002 Oct; 23(10):1195-8

Abstract

Objective: To evaluate the effect of Khat-induced myocardial infarction (MI) in Yemen.

Methods: One hundred and twenty patients with MI, admitted to Al-Thawra Hospital, Sana'a City, Yemen, during the year 2001 and 120 volunteer controls were collected for this study. On the other hand, we used 48 adult male rabbits for this study and divided it into 8 groups. Each group was consist of 6 animals; group I was used as normal control, group II was given adrenaline 60 g/kg intravenous infusion, group III and IV were given Khat 1g/kg once daily for 2 months, group V and VI were given Khat 1g/kg 3 times daily for 2 months, group VII and VIII were given Khat extract equivalent to 1g/kg intravenous infusion, 4 hours after the last dose of Khat and adrenaline 60 g/kg intravenous infusion was given to groups IV, VI and VIII. The animals were killed by decapitation. Blood samples were collected from each rabbit for determination of their creatinine kinase-iso enzyme (CK-MB) lactate dehydrogenase (LDH) and serum glutamic-oxaloacetic transaminase enzymes. Also, hearts were dissected out rapidly for histopathological study.

Results: Seventy-nine percent of patients with MI were Khat chewers and only 20.8% were non-Khat chewers. Experimental study shows that Khat in a dose of 1g/kg 3 times a day for 2 months, Khat extract equivalent to 1g/kg intravenous infusion alone and in combination with adrenaline 60 g/kg intravenous infusion significantly increased cardiac enzymes (CK-MB, aspartate transaminase, LDH), also, the histopathological study for the same groups revealed multiple areas of infarction.

Conclusion: The present study has demonstrated that Khat chewing may be considered as a risk factor for the occurrence of MI especially in persons who are susceptible to the disease. It is therefore, recommended that Khat chewing should be avoided in persons who have any cardiovascular problems.

8) Title: Prevalence of Hepatitis B and Hepatitis C in Blood Donors and High Risk Groups in Hajjah, Yemen Republic

Author: Haidar NA.

Date: 2000

Source: Saudi Med J.2002 Sep; 23(9):1090-4

Abstract

Objective: To determine the prevalence of hepatitis B antigen and anti-hepatitis C virus (HCV) antibodies in blood donors, hospital employees, patients suspected to have liver disease, and hemodialysis patients.

Methods: This study was conducted from April 1997 through to September 1999 as a hospital based study in Hajjah, Republic of Yemen. All healthy blood donors, hospital employees, suspected hepatitis patients and patients in the hemodialysis unit were included in this study. T

Results: The screened blood donors for HbsAg and HCV were 7868 and 2434 with a prevalence of 9.8% for hepatitis B antigen and 1.1% for anti-hepatitis C virus. Two hundred of the hospital employees were screened with a prevalence rate of 1.5% and 0.5% for hepatitis antigen and anti-hepatitis C virus. The patients referred selectively for testing the hepatitis B antigen and anti-hepatitis C virus were 1229 and 749, the prevalence rate of HbsAg was 14.9% and 8.8% for anti-HCV, double infection (both hepatitis B virus and HCV) recorded in 8 patients forming 3.2% of the positives (in 0.4% of the total).

Conclusion: The prevalence was high in Hajjah governorate, Republic of Yemen in both the healthy blood donors and in the risky groups except the hospital employees.

9) Title: Khat Pharmacological and Medical Aspects and its Social Use in Yemen

Authors: Al-Motarreb A, Baker K, and Broadley KJ.

Date: 2001

Source: Phytother Res J.2002 Aug; 16(5): 403-13 Review

Abstract

Fresh leaves of the khat tree (*Catha edulis* Forsk.) are chewed for their euphoric properties in East Africa and parts of the Middle East, such as The Yemen. This review describes the history, cultivation and constituents of khat, and the social aspects of khat chewing in Yemen. The major pharmacologically active constituent of the fresh leaves is (-)-S-cathinone. The pharmacology of (-)-S-cathinone in the central nervous system and the peripheral effects are described. (-)-S-Cathinone is regarded as an amphetamine-like sympathomimetic amine and this mechanism of action is discussed in relation to the central stimulant actions and the cardiovascular effects of increasing blood pressure and heart rate. The risk factors associated with khat chewing are described, with emphasis on the reported increased incidence of acute myocardial infarction. Copyright 2002 John Wiley & Sons, Ltd.

10) Title: The Effect of Chewing Khat Leaves on Human Mood

Authors: Hassan NA, Gunaid AA, El-Khally FM, and Murray-Lyon IM

Date: 2000

Source: Saudi Med J.2002 Jul; 23(7):850-3

Abstract

Objective: Chewing fresh leaves of the Khat plant (*Catha edulis*), represents a widespread habit with a deep-rooted sociocultural tradition in Yemen. Khat is chewed for its central stimulant properties and to dispel feeling of fatigue and its use is believed to be associated with disturbance of mood. We studied the effect of chewing Khat leaves on human mood by using a standard questionnaire method, the Hospital Anxiety and Depression scale.

Methods: A prospective study was conducted in the Faculty of Medicine and Health Sciences, University of Sana'a during the period January to June 2000. It comprised of 200 healthy volunteers, interviewed on 2 occasions a week apart. Subjects either chewed Khat at least 3 hours daily for 3 days or abstained from chewing for at least 7 days prior to mood assessment using the Hospital Anxiety and Depression scale. Subjects were studied in random order.

Results: Using the Hospital Anxiety and Depression scale, there was a significant increase ($P < 0.0001$) of median score on the scale indicating mood disturbance during the Khat-arm of the study as compared to the control-arm. The effect was particularly evident shortly after the Khat session. Reactive depression symptoms were predominant.

Conclusion: Khat chewing did result in functional mood disorder. This effect is believed to be caused by the sympathomimetic action of cathinone on the central nervous system. The clinical implication of this study is that Khat-chewing might exacerbate symptoms in patients with pre-existing psychiatric disease.

11) Title: Prevalence and Risk Factors for Helicobacter Pylori Infection among Yemeni Dyspeptic Patients

Authors: Gunaid AA, Hassan NA, and Murray-Lyon I.

Date: 2000

Source: Saudi Med J.2003 May; 24(5): 512-7

Abstract

Objective: Helicobacter pylori (H. pylori) are one of the world's most common human bacterial infections. Acquisition of H. pylori infection may be associated with chronic gastritis, peptic ulceration and gastric cancer. This study was aimed at investigating the prevalence of H. pylori infection among dyspeptic patients, any correlation with dyspeptic symptoms and endoscopic findings and, any socioeconomic and environmental risk factors.

Methods: The study was conducted between September 1997 and October 1998 in one Endoscopy Unit, Sana'a city, Yemen. A total of 275 consecutive patients with chronic dyspepsia were enrolled in the study. Endoscopic examination was conducted, gastric biopsies were obtained from the antrum and corpus, and H. pylori infection was diagnosed at the time of endoscopy using the rapid urease test.

Results: The prevalence of H. pylori infection in our patients was 82.2% (95% confidence interval (CI) 78 to 87%). Independent variables associated with infection were age >40 years (odds ratio (OR)=2.2; 95% CI: 1.0-4.64; P=0.043); the presence of ≥ 5 children under 14 years per household (OR=6.62; 95% CI: 2.245 to 19.5; P= 0.001); and duodenal ulcer disease (OR=3.7; 95% CI: 1.38 to 10.0; P=0.009).

Conclusion: The prevalence of H. pylori infection in dyspeptic patients in Yemen seems to be high. Advancing age, 5 or more children per household and duodenal ulcer disease were found to be significantly associated with H. pylori infection.

12) Title: The Diagnostic Value Of Fine Needle Aspiration Cytology In Thyroid Swellings In A University Hospital, Yemen

Authors: Al-Hureibi KA, Al-Hureibi AA, Abdulmughni YA, Aulaqi SM, Salman MS, and Al-Zooba EM.

Date: 2001

Source: Saudi Med J.2003 May; 241(5):499-503

Abstract

Objective: To evaluate the correlation between the fine needle aspiration (FNA) cytology and the histopathological findings in cases of the thyroid swellings and to assess the accuracy of cytological examination of thyroid nodules.

Methods: This study was carried out at Kuwait University Hospital, Sana'a, Yemen. There were 243 thyroid FNAs of which 199 had subsequent excisional histopathological examination in the period 1997 to 2001. All the records of cytology and histology were reviewed. Cases were classified into 6 subsets: benign follicular lesion, thyroiditis, follicular neoplasm, suspicious for papillary carcinoma, malignant, and non-diagnostic aspirate. For statistical analysis, we excluded cases, which had not had subsequent histopathological examination (n=44), and cases with non-diagnostic aspirate (n=3), so only the histology and medical records of 196 cases were reviewed and correlated with the cytology results.

Results: There were 156 (78.4%) cases of benign aspirate, 31 (15.6%) cases of follicular neoplasm, 4 (2%) cases that were suspicious for papillary carcinoma, 4 (2%) cases of papillary carcinoma, and 3 (1.5%) cases of non-diagnostic aspirates. The 196 cases, which underwent cytological and histopathological examinations, were classified as non-neoplastic and neoplastic (including follicular neoplasm and malignancy) according to postoperative histopathology and correlation which, was carried out with preoperative cytology. There were 115 true negatives, 26 true positives, 42 false negatives, and 13 false positives. This gives a sensitivity of 38%, specificity of 89.9%, positive predictive value of 66.7%, negative predictive value of 73.2%, and accuracy of 72%.

Conclusion: The sensitivity of FNA cytology in this study is very low compared to published studies, which had adversely affected the surgical decision making as well as the outcome. We should realise that negative FNA cytology does not exclude malignancy and we have to seriously evaluate the situation and to rethink on how to raise the scale of sensitivity in FNA cytology in the diagnosis of thyroid nodules, and to improve the level of expertise in cytology

13) Title: Water Quality of Some Wells in Taiz City (Yemen Republic) and Its Surroundings

Author: Metwali RM

Date: 2002

Source: Folia Microbiol (praha) J.2003; 48(1):90-4

Abstract

Bacteriological and physicochemical parameters were determined in water samples collected from fifty-one producing wells used for human consumption in Taiz City (Yemen Republic) and its surroundings. Most water samples, especially from private wells, contained a high concentration of total coliforms which greatly exceeded the permissible limits recommended by the World Health Organization in 1996. Fecal coliforms were found in the majority of polluted sampled waters (65% of the total of wells examined).

14) Title: The Effect of Khat Chewing On Gallbladder Motility in a Group of Volunteers

Authors: Murugan N,Burkhill G,Williams SG,Padley SP, and Murray-Lyon IM

Date: 2002

Source: Ethnopharam Col J.2003 Jun; 86(2-3):225-7

Abstract

An increase in the prevalence of gallstones has been reported from the Middle East and the Republic of Yemen. Changing dietary habits and obesity are thought to be responsible but other local factors may contribute such as chewing the leaves of the khat plant (*Catha edulis* Forsk.) which is a widespread social custom in Yemen. We have studied the effects of khat chewing on gallbladder motility in a group of 10 healthy volunteers. All subjects underwent ultrasound measurements of gallbladder volume after chewing khat leaves or lettuce, which was used as the control. Results were compared after chewing for up to 2h in the fasting state and in response to a fatty meal. There was no significant change in gallbladder volume after chewing khat compared with lettuce in the fasting state ($P=0.7$) or in gallbladder emptying after a fatty meal ($P=0.4$) and we conclude that khat chewing has no clinically significant effect on gallbladder motility.

**15) Title: Detection of Antileishmanial Igg Antibodies and
Leishmania-Specific Antigens in Sera from Yemeni
Patients with Visceral Leishmaniasis**

Authors: Azazy AA, Na sher ST, Ishaq A, Bin-Muhanna M, and Chance ML.

Date: 2002

Source: Ann Trop Med Parasitol J.2003 Oct; 97(7):689-95

Abstract

As part of an attempt to develop an effective method for the serodiagnosis of visceral leishmaniasis (VL), the sera from 43 Yemeni cases of the disease were screened both for Antileishmanial IgG antibodies and for Leishmania-specific antigens. Indirect ELISA and capture ELISA were used to test each serum for the antibodies and antigens, respectively. Sera from patients with diseases other than leishmaniasis (29 for the antibody-detection assays and 42 for the antigen-detection) and from apparently healthy volunteers were also tested. For each type of assay, the threshold for seropositivity was set three standard deviations above the mean absorbance value for the sera from the healthy volunteers. Thirty-seven of the 43 VL sera were found positive for Leishmania-specific IgG antibodies and 37 were found positive for Leishmania-specific antigens. The sensitivities of the antibody- and antigen-detection assays were both therefore 86%. The overall specificity of the antibody-detection ELISA (67%) was, however, slightly higher than that of the capture-ELISA (64%).

**16) Title: Histopathological Changes in Oral Mucosa Due To
Tak Hzeen Al-Qat: A Study Of 70 Biopsies**

Authors: Ali AA, Al-Sharabi AK, and Aguirre JM.

Date: 2005

Source: Oral Pathol Med J.2006 Feb; 35(2):81-5

Abstract

Background: Chewing qat leaves (takhzeen al-qat) is a common habit in East Africa and Yemen. It has been reported to cause different systemic effects. At the oral mucosa, it causes clinical changes that appear as white lesions. The aim of this paper was to study the histopathological changes in the oral mucosa related to takhzeen al-qat.

Method: Seventy biopsies were studied. Biopsies were divided into three groups: (G1) Forty biopsies were taken from the oral mucosa of the chewing side. (G2) Twenty biopsies were taken from the oral mucosa of the opposite side and (G3) 10 biopsies were taken from the oral mucosa of non-chewing volunteers. All biopsies were conventionally prepared, paraffin embedded and histopathological protocol was followed for each case to study the histopathological changes.

Results: Acanthosis appeared in 97.5% (G1) and 50% (G2), parakeratosis in 45% (G1) and 0% (G2), orthokeratosis in 25% (G1) and 10% (G2), abnormal rete ridges in 97.5% (G1) and 25% (G2), intracellular edema in 80% (G1) and 65% (G2), inflammatory infiltration in the subjacent connective tissue of 55% (G1) and 5% (G2), increased amount of collagenous fibers in 47.5% (G1) and 0% (G2), and mild epithelial dysplasia in 25% (G1) and 0% (G2). Biopsies taken from G3 showed no histopathological changes except one case with intracellular edema. Differences were statistically significant

Conclusion: Takhzeen al-qat caused histopathological changes in the oral mucosa at the side of chewing; however, these changes were innocuous and without any evidence of malignancy.

17) Title: The Role of Climate on Malaria Incidence Rate in Four Governorates of Yemen

Authors: Al-Mansoor MA, and Al-Mazzah MM.

Date: 2000

Source: Med Malaysi J.2005 Aug; 60(3):349-57

Abstract

The aim of study was to investigate the role of climate on the Malaria Incidence Rates (MIR) in some regions in of Yemen. For such purpose, the monthly (MIR) were calculated from the records of the hospitals' laboratories and centers of the Malaria Rollback centers in the main cities of the governorates Hudeidah, Taiz, Sana'a and Hadramout for the period 1989-1998. The readings of the climatic factors (CF) particularly the average monthly temperature (T), relative humidity (RH), volume of rain fall (RF) and wind speed (WS) for the same period of time were also collected from different weather and climatic information resources. Descriptive statistics, simple linear regression and multiple linear regression techniques were used to analyse the relationship between MIR and CF. The analysis shows highly significant relationship between MIR and the CF in these regions of Yemen (p-value 0.001).

18) Title: Common Causes of Child Mortality in Sana'a, Yemen

Author: Salla m AK.

Date: 2003

Source: Saudi Med J.2005 Jul; 26(7):1112-5

Abstract

Objective: To study the common causes of child mortality at Al-Thawrah Hospital, Sana'a, Yemen.

Methods: A retrospective study of 639 children aged 0-14 years, who died in the hospital within a 4 year period. This study was carried out at the Al-Thawrah Hospital, Sana'a, Yemen, between January 2000 and December 2003. Children who were admitted to the pediatric/nursery unit and died in the hospital were included in this study. Data were collected from patient's files, hospital register and death certificate to ascertain the cause of death and their percentage.

Results: Out of 4575 admissions to the pediatric unit, there were 639 children deaths (13.96%). Deaths were higher among those <2 years of age. The most common causes of deaths in the pediatric unit were infections (18.1%) followed by respiratory problems (17.7%), central nervous system diseases (12%), renal (9.7%), malignancy (9.5%), shock (7.9%) and cardiac diseases(7.3%). While in the nursery, out of 4182 admissions in the same period, 823 died (19.67%), among these were pre-maturity (47%), birth asphyxia (23.7%), infections (10.9%), congenital anomalies (8.4%), central nervous system diseases (5.3%) and others (4.7%). Postmortem examination was not carried out in any of the cases.

Conclusion: The percentage of deaths on admission among children is less than it was previously, but remains high. The majority of the causes of death are preventable. Efforts to further reduce the mortality should be directed at prevention and early treatment.

19) Title: Gender and Literacy: Factors Related To Diagnostic Delay and Unsuccessful Treatment of Tuberculosis in the Mountainous Area of Yemen

Authors: Date J. and Okita K.

Date: 2003

Source: Int Tuberc Lung Dic J.2005 Jun; 9(6):680-5

Abstract

Setting: People in the mountainous area of Yemen, having maintained their traditional lifestyle, generally believe that uneducated women are unsuccessful in using modern medical care. Whether this belief applies to tuberculosis (TB) diagnosis and treatment has not been researched in Yemen.

Objective: To examine how gender and literacy influence TB diagnosis and treatment.

Design: Individual interviews and data collection were conducted for 74 smear-positive pulmonary TB patients visiting the National Tuberculosis Institute in Sana'a from December 2001 to March 2002. The treatment outcome for each patient was checked from September 2002 to March 2003.

Results: Illiterate patients had a longer diagnostic delay than literate patients ($P=0.006$, univariate logistic regression analysis). They also maintained their traditional view of illness, not the illness 'TB'. More females than males completed treatment ($P = 0.046$, univariate logistic regression analysis). Supervision by male relatives contributed to completion of treatment among female patients.

Conclusion: Lack of education does not hinder women from receiving TB diagnosis and treatment. The concept of traditional illness, however, causes a longer diagnostic delay among illiterate patients, and the role of male relatives positively influences treatment outcomes for female patients.

20) Title: Khat Chewing Is A Risk Factor For Acute Myocardial Infarction: A Case-Control Study

Authors: Al-Motarreb A, Briancon S, Al-Jaber N, Al-Adhi B, Al-Jailani F, Salek MS, and Broadley KJ.

Date: 2000

Source: Br Clin Pharamcol J.2005 May; 59(5):574-81

Abstract

Aim: Khat chewing is a common habit in Yemen and east African countries. Millions of people chew khat leaves daily for its euphoric and energetic effects and to increase alertness. Cathinone, the main active substance in fresh khat leaves, has sympathomimetic effects which increase heart rate and blood pressure. The aim was to examine the hypothesis that khat chewing is a risk factor for acute myocardial infarction (AMI) using a hospital-based matched case-control study.

Method: Between 1997 and 1999, we selected 100 patients admitted to the Al-Thawra teaching hospital Sana'a ICU, Yemen with acute myocardial infarction. 100 control subjects, matched to cases for sex and age, were recruited from the outpatients clinics of the same hospital. A questionnaire was completed for case and control groups covering personal history of khat chewing, smoking, hypertension, diabetes and any family history of myocardial infarction. A blood sample was collected for performing lipid profiles. Cases and controls were compared by analysis conducted using conditional logistic regression which corrected for baseline imbalances leading to less biased estimations of odds ratio (OR). The risk associated with each classical factor and khat chewing habits was then investigated. OR values greater than 2.5 indicated a significant risk factor.

Results: Khat chewing was significantly higher among the AMI case group than control group (OR = 5.0, 95% CI 1.9-13.1). A dose-response relationship was observed, the heavy khat chewers having a 39-fold increased risk of AMI.

Conclusion: This study indicates that khat chewing is associated with AMI and is an independent dose-related risk factor for the development of myocardial infarction.

21) Title: Effect of Khat Chewing On 14 Selected Periodontal Bacteria in Sub- And Supragingival Plaque of a Young Male Population

Authors: Al-Hebshi NN and Skaug N.

Date: 2004

Source: Oral Microbiol Immunol .2005. Jun; 20(3); 141-6

Abstract

Background/Aims: The habit of chewing khat (*Catha edulis*) for its amphetamine-like effects is highly prevalent in Yemen and east Africa, and has expanded to Western countries. The purpose of this study was to estimate and compare the prevalence and levels of 14 periodontal bacteria in gingival plaque of khat chewers and khat nonchewers, as well as of khat chewing sides and khat nonchewing sides.

Methods: A total of 408 sub- and supragingival plaque samples were collected from 51 young males (29 khat chewers and 22 khat nonchewers; age range 19-28 years) and analyzed using whole genomic DNA probes and checkerboard DNA-DNA hybridization. Clinical parameters were recorded for all teeth at six sites per tooth.

Results: *Streptococcus intermedius* and *Veillonella parvula* were significantly more prevalent in the subgingival plaque of chewers, which also showed significantly higher levels of *V. parvula* and *Eikenella corrodens*. Similar results were found for the subgingival plaque of the chewing sides compared to the nonchewing sides. However, there was a significantly higher prevalence and higher levels of *Tannerella forsythia* in the subgingival plaque of the nonchewing sides. No significant differences were observed for the supragingival plaque between the two study groups. There was a significantly lower prevalence of *Capnocytophaga gingivalis* and *Fusobacterium nucleatum* in the khat chewing sides, and higher levels of *V. parvula* and *Actinomyces israelii*.

Conclusion: The data suggest that khat chewing induces a microbial profile that is not incompatible with gingival health.

22) Title: Prevalence of Hypocalcaemia in Children Examined For Serum Calcium in Sana'a, Yemen

Authors: BinMohanna MA, Raja'a YA, and Saif GA.

Date: 2003

Source: Saudi Med J.2005 Mar; 26(3)457-9

Abstract

Objective: To estimate the prevalence of hypocalcemia in children examined for serum calcium.

Methods: A record-based study was carried out in the Specialized Pediatric Center in Sana'a city, Yemen during the 4 year period 1999 to 2003. Out of 90600 patients seen for different causes, 310 (0.34%) were subjected to serum calcium level examination. Data regarding age and gender were also collected.

Results: The median age of the patients was 5 months, with minimum age of one day and maximum age of 4 years. Prevalence of hypocalcemia among children examined for serum calcium was 58%, 60% of them were males and 40% were females. Age group of 0-1 months constituted 17.8% while the age group of 1-3 months constituted 17.2%. Patients with serum calcium level between 4-6 mg constituted 27.8% and less than 7.5 mg were 72.2%.

Conclusion: Prevalence of hypocalcemia in children examined for serum calcium was high. Males were more affected than females and was more in neonates followed by age 1-3 months then age 3-6 months.

23) Title: Immune Response to Hepatitis B Vaccine among Children in Yemen

Authors: Sallam TA, Alghshm HM, Ablohom AA, Alarosi MS, Almotawakel RE, Farea NH, and Mosleh AA.

Date: 2002

Source: Saudi Med J.2005 Feb; 26(2):281-4

Abstract

Objective: This study looks into the immune response to hepatitis B vaccine (HBV) among children who completed the 3 doses of vaccine 7-years after inclusion of HBV vaccination to the National Extended Program for Immunizations (EPI) in Yemen.

Methods: Between March 2002 and October 2002, a total of 170 children, aged 13-73 months with a mean age of 43.64 +/- 17.42 SD months; and have completed the 3 HBV vaccine doses were investigated for immune response to HBV vaccine by quantifying anti-HBs. Past infection was investigated by testing children to total anti-HBc.

Results: Of all children, 49.4% were males and 50.6% were females. One hundred and forty-two (83.5%) responded to the vaccine (antibody level > or = 10 mIU/ml). Only 3 children of 153 (2%) were reactive to anti-HBc indicating that the response was due to vaccination rather than combined effect of vaccine and HBV past-infections. There was a trend of decreasing antibody level with an increasing age. However, the difference in antibody levels between age groups was not statistically significant (p=0.40). Significantly lower antibody level (p=0.02) was found among children with a low economic status.

Conclusion: This study has revealed a high response rate to HBV vaccine. However, a considerable proportion (32.4%) of vaccinated children remains to be reconsidered for either revaccination or booster doses due to lack, inadequate or low response. The trend of decreasing antibody level with increasing age suggests a need of careful monitoring of HBV vaccine efficacy in Yemen. Demographic factors such as gender number of inhabitants per room and educational level of father did not significantly affect the immune response to HBV vaccine.

24) Title: Uterine Ruptures in Yemen

Author: Diab AE.

Date: 2004

Source: Saudi Med J.2005 Feb: 26(2):264-9

Abstract

Objective: To study the incidence, risk factors, clinical presentation, maternal morbidity and mortality, and perinatal mortality in cases with ruptured gravid uterus.

Methods: All cases with diagnosis of uterine rupture at Saudi Hospital at Hajjah, Yemen during 5-years period from April 1999 to March 2004 were studied. Detailed informations were obtained by reviewing hospital records.

Results: Out of the total number of deliveries during the period (N=5547), 60 cases had uterine rupture giving a hospital incidence of one in 92 deliveries (1.1%). Forty-three cases (71.7%) with unscarred uterus and 17(28.3%) had a previous cesarean scar. Poor antenatal and intra-natal care were the main contributing factor (93.3% had no prenatal visit, 95% presented to the hospital late after long period of obstructed labor at home). Grand-multiparty was encountered in 69.8% of cases with unscarred uterus and 41.2% of cases with a previous scar ($p<0.05$). Associated factors in unscarred uterus cases included: cephalopelvic disproportion (39.5%), shoulder presentation (25.6%), oxytocin (14%), breech delivery (7%), hydrocephalus (7%), brow (2.3%), misoprostol induction of labor (2.3%), and previous surgical evacuation (2.3%). In previous cesarean scar cases, cephalopelvic disproportion affected 58.8%, and shoulder presentation 5.9%. The complete rupture was reported in 48 cases (80%), hysterectomy was carried out for 33 cases (55%), repair for 23 cases (38%), and repair plus bilateral tubal ligation for 4 cases (7%). Five cases (8.3%) needed additional surgical intervention in the form of repair of ruptured bladder (3 cases), and repair of bladder injury (2 cases). Vesico-vaginal fistula developed in 2 cases (3.3%). Fifty-three cases required blood transfusion (88%). Hospital stay ranged between 1-17 days (mean 6.2, SD 3.6). There was one maternal death (1.7%) and 49 (81.7%) perinatal deaths.

Conclusion: This study confirms high incidence of such serious preventable obstetrical problem. Poor antenatal and intranatal care, poor provision of health service and low socio-economic standard are the main factors contributing to uterine rupture.

25) Title: Educational Environment in Traditional and Innovative Medical Schools: A Study In Four Undergraduate Medical Schools

Authors: Al-Hazimi A, Zaini R, Al-Hyiani A, Hassan N, Gunaid A, Ponnampereuma G, Karunathilake I, Roff S, McAleer S, and Davis M.

Date: 2003

Source: Educ health (Abingdon) J.2004Jul; 17(2):192-203

Abstract

Introduction: The undergraduate curricula of medical schools in King Abdul Aziz University, Saudi Arabia, Umm Al-Qura University, Saudi Arabia and Sana'a University, Republic of Yemen are traditional, like most of the medical schools in the Middle East region. The curriculum in Dundee University Medical School, UK, claims to follow the prescriptions of the UK General Medical Council to be outcome based with three interlocking phases and students encouraged to take responsibility for their own learning. The aim of this study is to measure the educational environment, using the 50-item Dundee Ready Education Environment Measure (DREEM), in each medical school and to compare the educational environment as perceived by the responding students of the traditional medical schools in developing countries with that of the "modernised" medical school in Dundee University, UK.

Methods: The Dreem was administered to 1072 medical students in the four different universities. Using SPSS, data were expressed as means of scores. Comparisons between schools, years of study and gender were made using non-parametric tests.

Results: For all three traditional medical schools, the mean scores of the inventory were lower compared with Dundee Medical School. Students from traditional schools rated their learning and teaching environment significantly lower than their counterparts in Dundee Medical School. Similarly, they rated their academic self-perceptions, social-self perceptions and their atmosphere more poorly than the Dundee students.

Conclusion: The DREEM provides useful diagnostic information about medical schools, whether it is in developing or western developed countries.

26) Title: Etiology and Presentation of Acute Bacterial Meningitis in Children at Al-Thawrah Hospital, Sana'a, Yemen

Author: Sallam AK.

Date: 2003

Source: Aybu Med Coll Abbottaabad J.2004 Oct-Dec;16(4):40-3

Abstract

Background This study was carried out to determine the etiology and management outcome of acute bacterial meningitis among children presenting at Al-Thawrah hospital, Sana'a, Yemen.

Methods: This study was carried out from 01/01/2001 to 23/08/2002. It initially included 77 children of all ages (newborn to 12 years), who attended pediatric emergency with fever, convulsions and altered sensorium. Full medical history, clinical examination and lab investigations were used to diagnose acute bacterial meningitis, and to summarize etiology, presentation and management outcome.

Results: Over this 20 months period only 63 (81.81%) out of 77 suspected children were diagnosed as acute bacterial meningitis (ABM). The most affected age group was 4 months and 3 years. Based on CSF exam; there were 23 with positive findings of CSF analysis (turbid, decrease glucose <40mg.dl, increase protein >80mg.dl and leucocytes neutrophils >5cells.cu.mm), 21 cases were confirmed with CSF culture, while the remaining 19 cases showed normal CSF pictures. The fatality rate was 14.28%. The predominant organism in CSF culture was Klebsiella (33.33%) followed by Haemophilus influenza (23.80%), streptococcal pneumonia (14.28%) then 02 cases each; E-coli, Pseudomonas (09.52%) while with one cases each of tubercles meningitis and staphylococcus aureus.

Conclusion: Proper knowledge of etiology and presentation of ABM along with timely vaccination can help reduce mortality and morbidity associated with this deadly disease.

**27) Title: Bionomics of Anopheline Vectors in Zabid District,
Al-Hodeidah Governorate, Republic of Yemen**

Authors: Al-Maktari Mt and Bassiouny HK.

Date: 2001

Source: Z naturforsch [c] .2005 Nov-Dec; 60: (11-12):813-20

Abstract

The bionomics of anopheline vectors were analyzed in randomly selected centres, representing fixed and spot-checks stations. Three anopheline species were found. *Anopheles arabiensis* was the most prevalent species (84.2%) with a sporozoite rate of 0.7%, followed by *A. culicifacies adenensis* (14.9%) and *A. rhodesiensis rupicolus* (0.9%). Maximum indoor resting density was recorded during March, July and August. Positive sprayed sites for females were higher in bedrooms (40.4%) than animal sheds (26.9%). A total of 2560 anopheline larvae were collected of which 79.5% were *A. arabiensis*, 19.4% were *A. culicifacies adenensis* and 1.1% *A. rhodesiensis rupicolus*. *A. arabiensis* was assumed to be the most efficient malaria vector based on epidemiological evidence and the finding of natural sporozoite infected females.

28) Title: Knowledge, Attitudes and Beliefs about HIV/AIDS in Sana'a, Yemen

Authors: Al-Serouri AW, Takioldin M, Oshish H, Aldobaibi A, and Abdelmajed A.

Date: 2001

Source: East Meditor Health J.2002 Nov;8(6):706-15

Abstract

Although HIV prevalence is low in the Republic of Yemen, existing conditions could lead to the rapid spread of HIV/AIDS. Interviewers helped 1033 residents aged 14-49 years from randomly chosen households to complete a survey of knowledge, attitudes and beliefs about HIV/AIDS. General awareness was good, although there were many misconceptions about transmission modes, stigmas and discrimination against HIV positive persons. Knowledge was significantly determined by schooling, residence and sex. Although they recognized the global threat of AIDS, participants underestimated its threat to the Republic of Yemen. Television was the commonest source of information. Fostering public awareness is recommended to facilitate the development of intervention programmers, fight stigmas and ensure delivery of care to those affected.

29) Title: Validity of the Self-Report Version Of The Strengths And Difficulties Questionnaire In Yemen

Authors: Almaqrami MH, and Shuwail AY.

Date: 2002

Source: Saudi Med J.2004 May; 25(5):592-601

Abstract

Objective: The main objective of the study was to determine the validity of the Arabic version of the Strengths and Difficulties Questionnaire (SDQ) Self-Report version in Yemen.

Methods: Following translation and back translation of the scale into the Arabic language by a panel of experts, psychometric properties were assessed using 600 students from schools (low risk group) and 57 patients attending the Mental Health Hospital in Sana'a, Republic of Yemen (high risk group) from January through to April 2002. The age range of the 2 groups was from 12-17-years-old. Discriminative validity, concurrent validity and factorial validity were studied.

Results: The difference between the means of the "total difficulties" scores in both groups was highly significant ($p < 0.001$); the area under the curve (AUC) of the total scores and subscales scores were ranged from 0.77-0.89. The chance corrected agreements between the clinical diagnosis and SRQ subscales' prediction were significant. The sensitivity and specificity were 72% and 55%. Factor analysis yielded 5 dimensions of emotional symptoms, conduct disorders, hyperactivity, peer problems, and pro-social items.

Conclusion: Results of this validation study suggest that the Arabic version of the SRQ of SDQ is valid in Yemen; and it can be a useful tool for investigating childhood behavioral and emotional disorders at clinical settings.

30) Title: Consanguineous Marriage in the Capital City Sana'a, Yemen

Authors: Gunaid AA, Hummad NA, and Tamim KA.

Date: 2002

Source: Biosoc Sci J.2004 Jan; 36(1):111-21

Abstract

Consanguineous marriage is traditionally common throughout the Eastern Mediterranean region, especially in the mainly Muslim countries. To date, there is little information on consanguinity in Yemen. The aim of this study was to ascertain the rate of consanguineous marriage and average coefficient of inbreeding in Sana'a City, Yemen. A population survey was conducted with the intention of covering married couples resident in Sana'a City by means of a multi-stage random sampling technique. A total of 1050 wives and husbands were interviewed on consanguinity in their households. The total incidence of consanguinity was 44.7% (95% CI 41.7-47.7%) with first-cousin marriages constituting 71.6% of the total consanguineous marriages and 32% of all marriages. Paternal parallel first cousins (Type I) accounted for 49% of first-cousin marriages. The average coefficient of inbreeding (F) was 0.02442. The incidence of consanguinity is relatively high in Yemen with predominantly first-cousin marriage. This might be related to the deeply rooted social and cultural beliefs in the country.

31) Title: Effect of Gamma Irradiation on Microbial Decontamination of Dry Fish (Wazaf) During Storage at Room Temperature

Authors: Gamal El-Deen Rassam El-Shamery

Date: 2002

Source: Science conference, Taiz - (11-13) October 2002

Abstract

This study showed the possibility of using gamma irradiation for microbial decontamination of dry fish (Wazaf) taken from Taiz markets , Dry fish samples were subjected to treatment by gamma radiation dosages (1.5,3.0 KGY) both irradiated and unirradiated samples were stored at room temperature (25c) for 7 months. Microbiological changes were followed by examination of samples during storage at zero time and every month for a period of 7 months . The results showed a reduction of the microbial decontamination and increase the shelf life. A complete destruction of Enterobacteriaceae , staphylococcus spp , streptococcus spp, Enterococcus spp, Coliform group , salmonella spp , Yeast and moulds by using a dose of 1.5 KGY of gamma irradiation was achieved , however , at higher dose (3.0 KGY dose) the population of aerobic , anaerobic , sporeformers , proteolytic bacteria , Bacillus spp and clostridium spp , were reduced by the following percentages : 98.5%, 96.6% 94.9%,99%,97.6%.and 92.5% respectively as compared with control samples.

32) Title: Antimicrobial Resistance Pattern of Isolated Bacteria in Ibn Sina General Teaching Hospital in Al -Mukalla - Yemen

Authors: Ahmed M. Al-Haddad

Date: 2001

Source: Science conference, Taiz - (11-13) October 2002

Abstract

Widespread use of antimicrobial agents often leads to the selection multi-drug resistance microorganisms, this study aims to investigate antibiotics consumption and the prevalence of antibiotics for the period between January and December 2001 in Ibn Sina General Teaching Hospital in Al-Mukalla – Yemen . Susceptibility among the isolated bacteria during this study was recovered. 36 Gram-positive bacteria and 96 Gram –negative bacteria. These bacteria were identified, and tested for susceptibilities to 16 antibiotics. The common isolates were E. coli , followed by *Klebsiella* spp , and mostly recovered from urine and swabs , cefotaxime , ciprofloxacin , cefizoxime and gentamicin showed the highest susceptibility in vitro activity inhibiting between 80-100% of strains. Overuse of antibiotics could be behind a high rate of drug resistance for some antibiotics .

33) Title: Determination of Copper, Zinc, Cadmium and Lead in Breast Milk of Yemeni Khat Users and Non-Users

Author: Mohammed Hashim Matloob

Date: 2002

Source: Science conference, Taiz – (11-13) October 2002

Abstract

The concentration of copper, zinc, cadmium and lead in human milk of Yemeni women were determined by anodic stripping voltammetry and the daily intake of these elements were calculated. Zn concentrations in breast milk declined throughout lactation from 3706 ± 1233 ug/L at one month to 816 ± 2264 ug/L at 12 month. Cu levels declined from 664 ± 13 Mg/L at one month to 284 ± 83 Mg/L at 12 month, with little change thereafter. Based on these data and the volume of milk produced by Yemeni mothers it was estimated that fully breast-fed infants would receive approximately 1853 to 775 ug of Zinc and 332 to 270 ug of copper daily during the first year of lactation. These values are higher than those observed in other poorly nourished countries but are considerably lower than dietary recommendations. The FAO/WHO Provisional Tolerable weekly intake (PTWI). The breast milk of regular Khat users had significantly higher concentrations of cadmium and lead, but almost the same amounts of copper and zinc. The concentration of Cu and Zn in breast milk seems to be stabilized via the ability of mammals. Vertebrate to maintain homeostasis by a combination of decrease absorption and enhanced excretion. The most dramatic consequence of Khat chewing found in this study was marked decreases in the breast milk volume of Khat-users which is expected to reduce the daily Zn and Cu intakes of breast-fed infants.

34) Title: Birth weights Influences on Neonatal Outcomes

Authors: Sosan Roomer Fadaq, Intisar Alhag, Firyal Abdulgafoor, Muna Farook, Wafa S. Raweh, Samira S Bin Hawaii, Anisa H Noman, and Arwa M Saleh

Date: 2005

Source: The 13th congress of the Union of the Arab Pediatric Societies.

Abstract

Size at birth is significant indicator for predicting neonatal health and future outcome. The weight at birth for babies in developing countries tends to be lower than that for the general population in developed countries. Birth weight has been used as a general indicator for wellbeing due to a continuous positive relation between birth weight and improved markers of health.

Objectives: To compare normal body weight and low birth weight neonates in their admitted problems and outcomes.

Patients And Methods: A total of 321 neonates were retrospectively included in this study during the period January 1st to 30th November 2005 at Aden General Hospital and divided into two groups: normal birth weights (2500-3999gms) and low birth weights (less than 2500gms) with variables compared using statistical analysis.

Results: Normal and low birth weights were recorded in 211 and 110 neonates respectively. In this study preterm constituting (63.3%) of admitted low birth weights. Neonatal problems were predominantly respiratory distress (26.5%), hypoglycemia (23.2%), weak /negative sucking reflex (22.7%), fever (21.8%) and jaundice (21.3%) of admitted normal birth weights. The low birth weights encountered equal frequencies of respiratory distress and weak /negative sucking reflex (42.7%), jaundice (40%), coffee ground/fresh blood by nasogastric tube in (27.2%) of them. Neonatal deaths were documented in 14 normal birth weight and 28 low birth weight neonates with the major problems of respiratory distress and oral fresh blood/coffee ground secretions revealing no statistical significant difference between both groups. Convulsion was the terminal event in 50% of neonates who died with normal birth weights.

Conclusions and Recommendations: Normal and low birth weight neonates predominantly presented with respiratory distress consequently the terminal event of death in both groups. Low birth weights especially preterm had uneventful outcomes in this study. Maternal and child health services with greater emphasis on antenatal and neonatal intensive care should be further improved and developed to minimize neonatal morbidity and mortality in our country

35) Title: Preterm Birth the Main Underlying Causes & Some Related Factors

Authors: Ahmed AL-Daweel and Khadiga Naser Abdullah

Date: 2004

Source: The 13th congress of the Union of the Arab Pediatric Societies.

Abstract

Objective: To determine the frequency rate, the main underlying causes & some factors related to preterm birth.

Study Design: it is a retrospective, descriptive study on 233 singleton pregnant women, with a gestational age between 23 wk to 36 wk. s having preterm labor which ended in preterm birth in AL-Wahda teaching hospital. In a period of time from 1st Jan. 2003 to 31st may 2004.

Results: A total of 4322 pregnant women delivered alive birth in the hospital,233 were preterm with a frequency rate of 5.4% during the study period, by study some factors like maternal age we found that the common age is 20-24yrs,& nulliparous more affected, the presence of bad antenatal care, bad economic level, illiterate women may attributed.

When relate some factors as maternal age & parity to preterm birth they were statistically significant with a chi-square =102.75(p=0.0000). Other related factors is the previous obstetric history of abortion & previous preterm birth they are also statistically significant with a chi-square 10.59(p=0.032).

The commonest cause which lead to preterm birth in this study are premature rupture of membrane(30%)followed by PET (19.3%) & infection (14.6%),half of preterm newborn with excellent apgar score & the body weight 2000-2499gm represent the high percentage.

Conclusion: preterm birth remain a vexing problem with a considerable rate .the relation of maternal age & parity, previous abortion & previous preterm birth both are significantly related to preterm birth. Also strong relationship was found between preterm birth & premature rupture of membrane, PET, & infection.Some factors my play role in increasing preterm birth rate as bad antenatal care, bad economic status, low education & maternal anemia.The common gestational age groups are 32-36wk.s which correlated with birth weight & Apgar score.

36) Title: Maternal Risk Factors and Outcome of Low Birth Weight Preterm and Term Infants Admitted to Al-Wahda Teaching Hospital

Authors: Entisar Saleh AL-kaaky and Hassan A. Bin Gadeem.

Date: 2002

Source: The 13th congress of the Union of the Arab Pediatric Societies.

Abstract

Objective: To highlight on maternal socioeconomic factors, maternal obstetric and medical problems, habits, consanguinity affecting low birth weight, preterm and term infants admitted during the period of 1st June-30th November 2002.

Methods: This is a prospective descriptive study. Through designed questionnaire, and interview of the parents, 260 newborn infants' mothers were included, classified according to the gestational age and birth weight of their newborns (preterm infants <37 weeks gestation age and birth weight < 2500 gm, term LBW > 37 weeks gestational age & birth weight < 2500 gm, term NBW > 37 weeks gestational age & birth weight > 2500 gm).

Results: 38.5 % of the admitted newborns were preterm, 24.6% were term LBW, and 36.9% were term NBW infants. The maternal risk factors more related to preterm infants were multiple pregnancy, teenage mothers <20 years old, primiparity, preterm PROMs, short interpregnancy interval, maternal medical problems (APH, Preeclampsia & Incompetent cervix). The maternal risk factors more related to term LBW infants were low socio economic status, poor antenatal care & illiteracy, older age >35 years, grand multiparity and those with the habit of khat chewing and tobacco smoking. Early neonatal death was high reflecting the high perinatal mortality rate in our hospital.

Conclusions: Medical care as well as educational programs, antenatal, natal and perinatal intensive care of those mothers who are at risk to deliver preterm or term LBW infants, should attribute to reduce the preterm delivery rate and consequently to reduce the perinatal mortality rate.

37) Title: Birth Weight Distribution in Mean+ SD and Centiles in Al-Wahda Teaching Hospital Aden

Author: Gabel Altayeb Mohamed.

Date: 2000

Source: The 13th congress of the Union of the Arab Pediatric Societies.

Abstract

It is mandatory for every country to have or to construct its own standards of birth weight distribution. Yemen is one of the developing countries it lacks such standards. In this paper, the author is trying to establish birth weight standards in Al-wahda Teaching hospital (A.T.H.).

The main objectives of this study are: 1) to contribute in the establishing local standards of B.W. distribution at least at the level of district or governmental hospital, 2) to compare the results of this study with that of A.G.H., and with other international results and 3) to determine the incidences of preterm and postterm deliveries and of low birth weight infants in A.T.H..

Methods:-This is a retrospective descriptive study in a period of two years, from 1st January 1998 to the 31st of December 1999. Data are collected from the medical records of delivered women in the same period at Alwahda Teaching hospital . we have included all vaginal deliveries. Criteria of exclusion are twin pregnancies, stillbirths and malformed newborns. Deliveries prior to the 37th and beyond the 42nd week of gestation are used also for the purpose of calculating the incidences of preterm and postterm deliveries. Calculation of statistical parameters as means, standard deviations and percentiles in relation to the length of gestation, parity and sex, are made. The results were analyzed concerning the correlation between the birth weight and gestational age, parity; Z test for the differences between means of both sexes. Statistical tests are applied whenever are needed to compare the results stating 95% level of confidence limits of significance for our study. Statistical parameters as well as statistical tests of significance are obtained by the use of SPSS-version 9(1998) computerized program.

The overall mean birth weight of Al-wahda teaching hospital newborns is 2984.72+527.81Gr; the males are statistically heavier than females. The increment in the birth weight is steady up to the fifth delivery and up to the end of the 42nd week of pregnancy.

Preterm deliveries are stated at 6.32% of all deliveries; the frequency of postterm deliveries is 11.23% and the magnitude of low birth weight is 15.27%.

Conclusions:-1)The distribution of B.W as mean or centiles established by this paper can be considered a normal standard for Aden governorate, and can be relied on for our daily medical work;2) Because there is no significant differences between the means of birth weight of A.T.H. and A.G.H. hence the two samples are drawn from the same population and hence they are representative for Aden governor;3)the statistical parameters and the incidences established by this paper (means \pm SD, percentiles and the international ranges but more close to those developing countries.

38) Title: Prevalence of Hepatitis B Surface Antigen (HbsAg) among Blood Donors and Patients of Haemodialysis in Mukalla Hospitals

Author: Ahmed Ali Bahaj

Date: 2002

Source: Science conference, Taiz – (11-13) October 2002

Abstract

During the time from October 2001 to may 2002 , records of the laboratories of governmental and private hospitals in Mukalla city were revised to evaluate the prevalence of HbsAg among blood donors and patients underwent dialysis during three years from 1999-2001 .

Out of 13713 blood donors 379 (2.76%) found to be HbsAg. positive, giving the intermediate prevalence rate according to WHO classification.

The overall prevalence rate among dialyzed patients in the same period was found to be 12% with 22.4% during the year 2000 indicating the high rate of transmission among patients undergo therapeutic intervention , so the health care providing individuals .

Hepatitis B appears to be a major health problem in our community and strict measures regarding development of sensitive assay for it and vaccination to the people at risk could make this disease is a preventable one.

39) Title: Five Years of Prenatal Mortality in Al- Wahda Teaching Hospital

Author: Armando Lozano

Date: 2005

Source: The 13th congress of the Union of the Arab Pediatric Societies.

Abstract

Prenatal mortality, thus, reflects the standards of obstetrical and neonatal care, as well as the effectiveness of social measures in general and public health actions in particular, and they can also be seen as measures of socio economic development.

Objective:

- To determine the rate of perinatal mortality in AL-Wahda Teaching Hospital.
- To know the principal causes of perinatal mortality in AL-Wahda Hospital.
- To contribute in the reduction of perinatal mortality in AL-Wahda Teaching Hospital.

Methodology: We studied the perinatal mortality from the files of patients whom were admitted to AL-Wahda Teaching Hospital during 2002-2005.

Results and conclusions:

1. The rate of perinatal deaths increased during 2004 and decreased in 2005.
2. The rate of early neonatal deaths and the number of late fetal deaths increased from 2002, 2003, and more in 2004.
3. The most common causes of perinatal mortality were unknown causes, followed by toxemia, fetal infection and congenital' malformation.'

Recommendations:

To encourage all pregnant women do antenatal care by health education through TV and the Radio.

To improve the quality of ante-natal care, because most patients are without ante-natal care or they have only one visit at early pregnancy To improve our work in labor room, because early neonatal sepsis are increased.

40) Title: Congenital Malformation – preliminary study in Alwahda Teaching Hospital

Authors: Faiza.S. Alkaaky, Entisar. S. Alkaaky

Date: 2005

Source: The 13th congress of the Union of the Arab Pediatric Societies.

Abstract

Every pregnancy included a baseline risk with two to three chance of having a baby with a birth defect, despite an expectant mothers best effort to live a healthy life style, While factors contributing to this may be genetic or environmental, many instances the reason are still unknown

Our study conducted to highlight on some pattern of major congenital anomalies (MCAS) demonstrated by photographs, and the embryological basic of these malformations at birth in the neonatal unit of AL-Wahda teaching Hospital (Aden).These anomalies are: anomalies of central nervous system (CNS) (Meningocele, Anencephaly, Hydrocephaly); Craniofacial anomalies such as (Cleft lip with cleft palate, Eye anomalies); skeletal anomalies (Amelia, Clubfoot); and genetic anomalies (Turner's syndrome, Down's syndrome).

From our study we found that the CNS anomalies are more common in male than female also common among babies were born to woman from Lahaj Governomarte and show some mothers had not got prenatal care . Also we found from our study that some mothers had been taken drugs during their pregnancies. Our aim also to decrease the congenital malformation in order to get safety childhood .

**41) Title: Epidemiological study of the Patients Evaluated in
 Pediatrics Department of Military Hospital of Aden**

Authors: Maria Elena Alvarez and Asrar Saleh Al-Hayyal.

Date: 2005

Source: The 13th congress of the Union of the Arab Pediatric Societies.

Abstract

A retrospective and descriptive study of the patients i made evaluate in the service of pediatric of the Military hospital of Aden during March 2003 to July 2005. The objective is pursued of knowing the demographic pattern, the consultation reason and the infectious or not infectious aetiology of the cases, using these elements like variables to develop. the main result were the following ones: of a total of 8131 cases, the 50% they were masculine, the most numbers of cases was among 1 to 5 years, the malnutrition this present in 19% of the studied patient, the acute respiratory infections accupy the first place of the infections illnesses, continued by the digestive, those of skin and the malaria. The anaemia, the bronchial asthma and the accidents were the non infectious entities most frequent.

42) Title: Prevalence of Malocclusion in a Sample of Yemeni Schoolchildren, an Epidemiological Study

Authors: Ahlam Hibatulla Ali and Muhgat Ahmed Ali Abdo

Date: 2005

Source: The 13th congress of the Union of the Arab Pediatric Societies.

Abstract

Aim: To provide oral health planners in Yemen with information on the prevalence of malocclusion in schoolchildren in an attempt to define the target population for orthodontic services in the future.

Subjects and methods: 1007 schoolchildren (501 males and 499 females) aged 7_12 years were examined for malocclusion according to Angle's classification and Andrews six keys of occlusion. Clinical examination of each participant was carried out using sterilized dental examination set, portable spotlight a registration data sheet.

Results: In all, 56.8% of the sample had malocclusions, 29.2% of whom had class I, 26.2% had class II, and 1, 6% had class III malocclusion. A statically difference was found between males and females. 48.7% males and 51.3% had class I malocclusion, 54.2% males and 45.8% females had class II malocclusion, 37.5% males and 62.5% females had class III malocclusion.

Conclusion: The study proved that 56.8% of the sample had malocclusion. The key to providing the best possible orthodontic service to the population is qualified manpower. Highly educated, skilled specialists can collaborate in teams improving the public health education, quality of education and services in dental schools and private practice, and stimulate epidemiological research projects.

43) Title: Risk Factors Of Spontaneous Preterm Birth In Al-Wahda Teaching Hospital

Authors: Ahmed Al-Daweel, Dalia Saeed Aulagy

Date: 2005

Source: The 13th congress of the Union of the Arab Pediatric Societies.

Abstract

Objective: to identify and evaluate the most common medical, social & obstetric risk factors which lead to spontaneous preterm birth in order to prevent, treat, or avoid it aiming to decrease the perinatal mortality rate in which the prematurely is the most common cause.

Material and methods: our study is an analytic case control study. conducted in al-wehda teaching hospital in a period of time between 1st Dec. 2004 - 31st Dec. 2005, includes all cases of preterm labor with gestational age from > 20 wk to < 37th week, diagnosis by L.M.P or early U/S done between 14-20 wk . study group is 139 cases and the control group is 278 cases of full term birth (excluded those who use tocolytics or cerclage). The age group is from less than 20 years old to more than 40 years old.

The studied risk factors included: age, socioeconomic status, body mass index, antenatal care quality, history of previous preterm, history of repeated abortion, gravidity, educational level, occupation, cigarette or tobacco smoking, also obstetric complication like : PET, polyhydraminous, multiple pregnancy, genital infection,cx. Incompetence, previous cesarean or hysterotomy, abruption placenta, placenta previa. Medical complication: anemia, DM, AHT, UTI, renal diseases, thyroid gland diseases, chronic infection (T.B, toxoplasmosis) and cardiac diseases.

Results: we found in our study group that those < 20 years are 32 pt. in a percentage of 23 % and those > 40 years are 3 in percentage of 2.2 percent and according to body mass index 7 where under weight (19 BMI) and 35 overweight in a percent of 25.2 % & only 5 are obese in a percent of 3.6 % , in relation to gravidity 45 are primi (32.4 %) & grandmulti were 22 (25.8 %), and we find from our study that 17 have history of repeated abortion (12.2%), and 23 patients have history of previous preterm (16.5) . Regarding prenatal care 55 cases have no antenatal care (39.6 %) and 33 cases havellad-care (23.7 %) & 51 have accepted care (36.7 %). in relation to socioeconomic

condition, 78 cases are of low income (57.4 %), 41 intermediate (10.1%). only 17 (12.5%) had high level .

Regarding anemia 117 are anemic of various degrees (84.8 %), & regarding educational level 68 (48.9 %) are illiterate, and 126 cases are house wives only 13 are employers. In relation to cofactors (obstetric or medical complication) PROM is 29 (20.9%), PET 25 cases (18%), abruptio placenta 21 (15.1 %), multiple pregnancy 14 (10.1%), cervical incompetence 13 (9.4 %), previous scare 12(8.6%), placenta previa 7 (5%), bicornuate uterus 4 (2.9 %), polyhydraminous 3 (2.1 %) and both gestational DM and genital infection is 2 (1.4 %), UTI 19 (13.6 %),arterial. Hypertension 6 (4 %), chest infection 3 (2 %), toxoplasmosis 3 (2 %), measles, periodontal abscess, bronchial asthma all 1 case in percent of 0.7 %.

Conclusion: From our study the most frequent risk factor is anemia in a percentage of 84.8 % < low socioeconomic status, 57.4 % low educational level 48.9 %, lack of antenatal care 39.6 %. others of less frequency : primiparity 32.4 % , overweight & obesity 28.8 % , age < 20 & > 40 years (24.2 %), from obstetric complication PROM responsible for 20.9 % followed by PET & abruption placenta, multiple pregnancy & cervical incompetence. Regarding medical educations UTI is the most frequent risk factors.

44) Title: Rate of coverage by Hepatitis B Vaccine among Children under Five in Aden governorate, Yemen

Author: Amin Ahmed Bawazir

Date: 2004

Source: The 13th congress of the Union of the Arab Pediatric Societies.

Abstract

Objectives: To determine the rate of coverage by hepatitis B vaccine among children under Five in Aden governorate. To analyze the main Factors influencing the Vaccination process against hepatitis B in its social and cultural context.

Methodology:(Study design) A community-based cross-section survey was conducted among children of 6 months to Five years of age residing in eight administrative districts of Aden Governorate independently of sex were recruited in this study with the aim of determining the rate of coverage by anti-hepatitis B virus (HebB3) vaccine (march-may2004).

An interviewing questionnaire was used with one of the parents after obtaining a verbal consent. House-to-house visit were used covering a sample size of 480 children proportionally distributed to the different districts at Aden governorate through systematic sampling method. reliability of the vaccination coverage and completeness were based on the existence of vaccination card for each investigated child. data were analyzed statistically using univariate and multivariate analysis accordingly.

Results: Based on card validity results(82.3%) of the total were received from one dose to completed three doses of vaccines against hepatitis B virus while (86.7%) of the study group responding that they received the vaccine as based on recall memory. Females were predominant in this study than males (54.2% and 45.8% respectively). Based on some demographic characteristics of the families, most of mothers of vaccinated children were not work (80.3%),and their education level were varied from those received basic education (25.1%) to those completed their secondary education (27.8%), and those with diplomas or university degree represents (18.3%), the study revealed that the time taken to reach the vaccination centre was not a constrain in receiving the vaccine in which (56.0%) of the vaccinated group reach the health centre within time less than 10 minutes, while only (6.1%) of them needs 30 minutes or more walking to reach the vaccination centre. This result was not far from the group who did not receive vaccination with only (9.4%) was living relatively far from the health centre.

Conclusion: Health education has an important role in encouraging the people to take their children to the nearest vaccination centre to receive. The vaccines of whatever type, owing a clear reason that to protect their child from diseases. This result may be not the same in other governorate; therefore further similar study should be carried out to assess the vaccination activities against hepatitis B virus.

45) Title: Hepatitis B Surface Antigen among a Sample of Healthy School Children in Hadibu, Socotra

Author: Khalida Anwer Yousef

Date: 2003

Source: The 13th congress of the Union of the Arab Pediatric Societies.

Abstract

Hepatitis B Virus (HBV) is a common cause of viral hepatitis. The endemicity of infection is considered high in Yemen, where the prevalence of Hepatitis B s Antigen (HBsAg) ranges from 8% to 20%. Yemen introduced childhood immunization against HBV in 2000. Socotra, with the unique ecosystem, and one of the poorest rural areas in Yemen, shares this serious health problem is the motherland. The weak basic infrastructure, high endemicity of malaria, high rate of illiteracy, malpractice of traditional medicine, very basic health and educational services, all these from a potential ground for the spread of hepatitis B Virus. The problem of hepatitis B virus (HBV) among Soqotri school children is studied for the first time in Soqotra Island. The aim was a) finding the percentage of hepatitis B surface antigen (HBsAg) among Hadibu school children and b) it's relation to age and sex. A total of 213 school children, 117 (54.9%) males and 96 (45.1%) females, aged 7-18 years, from Salah Al Din and Al Zahra primary schools and Khaled Bin Al walid secondary school, in the capital Hadibu, were screened randomly for HBsAg. 18(8.5%)children were found positive for HBsAg. 13(72.2%) were males and 5(27.8%) were females. The highest percentage of HBsAg carriers (11.6%) were in the secondary school children and in the age group 10-12 years (10.4%) of the primary schools one, but were not statistically significant. The male to female ratio was 3.3:1 and 2.6:1 in the primary and secondary school children respectively. The rate of positively in this study was high HBV childhood vaccination program to target newborn population, as well as enhancing improvement in health living standards in this area.

46) Title: Outlining the Outbreak of Whooping Cough of 2003 in Aden

Author: Khaled M. Al-Giffri

Date: 2003

Source: The 13th congress of the Union of the Arab Pediatric Societies.

Abstract

Background: Whooping cough is a major health problem in developing countries affecting most commonly children < 5 years old. likewise, nowadays it spreads to involve many well – immunized communities.

Aims: To outline the whooping cough outbreak that occurred among children in Aden in 2003.

Methods: It is a descriptive case-series that includes 44 children seen in the period February 2003 through January 2004.

Results: The study sample included 23 boys (52.3%) with a male: Female ratio of 1.1:1.0. Eighty – six percent were <5 years of age. The vaccinated were 17 (38.6%). Total leukocyte count (TLC) was > 10,000/cmm among 37 patients (84%) and the lymphocyte was > 60% among 38 patients (86%). These findings were cross-tabulated in search for some possible associations

Conclusions: In this paper is concluded a possible slight male preponderance and most common involvement of children < 5 years by whooping cough. The characteristic leukocytosis and lymphocytosis were detected in a high percentage (> 80%). The outbreak was found mostly among the non-vaccinated (61%) which might indicate reluctance of the public to immunize their children. Those who were vaccinated might indicate either vaccine-failure or uninadequately vaccinated group.

Recommendation: A large-scale study of pertussis among both children and adults in Yemen, aided by the appropriate diagnostic tests, would be highly recommended.

47) Title: Immunization Coverage in Rural Areas of Hadramout Governorate

Author: Jalil Ebrahim

Date: 2004

Source: The 13th congress of the Union of the Arab Pediatric Societies.

Abstract

Objectives: The vaccination coverage rate was assessed among children born between 1990-2002 (age range between 2-14 years), in the rural areas of Hadramout governorate that contain health care centers, (during the period from march, May2004)and tried to find out the underlying causes of incomplete immunization.

Methodology: A community-based cross sectional survey was conducted to determine the vaccination coverage rate according to the recommended immunization schedule in Yemen, ending upon immunization cards and history of immunization.

Results: Of 675 children surveyed, 100 were from habab, 88 from Fwah al-gadeema, 76 from Al-Magad/Al-Aees, 73 from Geudoon, 68 from Al-Ghalila,60 from Rokub,58 from Sadbah,57 from Gawll-Shefa'A, 56 from Zaqfa/180 Shaqqah and 39 from Khalf. The percentage of children who were fully immunized comprised (57.7%), (40.1%) were incompletely immunized while (2.1%) were non-vaccinated. The complete coverage rates for BCG, DPT, OPV, HB and Measles were 87.2%, 90.9%, 91.1%, 31.8% and 85.4% respectively.

Discussion: It was found that the most common cause of incomplete immunization was due to unknown time and place of vaccination .

Conclusion: The vaccination coverage is maintained during the years 2002-2003 to the same level.

Recommendations: Maintaining the promotional coverage (mass media) about the importance of vaccination and supply the villages and countryside with appropriate and specific health appliances to improve the immunization coverage.

48) Title: Trends of Low Birth Weight in Newborns at Aden General Hospital

Authors: Sosan Oamer Fadaq, Intisar Alhaj, Firyal Abdulgafoor, Muna Farook, Wafa Saeed Raweh, Samira Sultan Bin Hawaii, Anisa Hizem Noman, and Arwa Mohammed Saleh .

Date: 2005

Source: The 13th congress of the Union of the Arab Pediatric Societies.

Abstract

Introduction: Low birth weight defined as a birth weight of less than 2500 grams remains a major public health problem in many parts of the world and is associated with a range of both short – and long – term adverse consequences. Although about one – half of all low birth weight infants in industrialized countries are born preterm (less than 37 week gestation), most low birth weight infants in developing countries are born at term and are affected by intrauterine growth restriction that may begin early in pregnancy.

Objectives: To assess the pattern of admission and outcome of newborns with low birth weight.

Patients and Methods: This retrospective descriptive study included all newborns of both sexes admitted to Aden general Hospital with birth weights less 2500 grams from 1st January to 31st . December 2005. The studied variables were collected from the neonatal medical records and data analyzed using software computer program of SPSS.

Results: During the study period, 173 low birth weight newborns with a male to female ratio of 1.3: 1 and a mean weight of 1800 grams were admitted to the hospital constituting 22.3% of the total admission. Higher percentages (85%) of them were admitted within the first twenty – four hours of life with a mean hospital stay of 5.8 days. The he lowest percentage of admission was recorded during the months of October and November. Hospital deliveries (92%) predominated among our studied newborns. Resuscitation was performed on 31 newborns. Death of low birth weight newborns comprised 59.7% of total neonatal deaths with 92% of respective deaths within the first day of life.

Conclusions: Low birth still weight remains a major health problem in our current community and we recommend future studies to identify the determinants of low birth weight because of the associated health risks since they are more likely to die during the neonatal period.

49) Title: Health and Disease Status of the Newborn in Lie Yemen Republic

Authors: Nafisa Alijaefy, Ishak, Rakeeb A, and Aklani

Date: 2004

Source: The 13th congress of the Union of the Arab Pediatric Societies.

Abstract

Background: In Yemen, health indicators have shown relative improvement, yet they are still considered high if compared with countries in the region infant mortality rate has dropped from 98 to 82 in 2004. This has been observed to be the trend in developing countries with the exception of maternal and neonatal mortality, which account for about 40% of all under 5 deaths.

Health of the newborn is very important to future prospects of the generation of children and hence to the country at large... Antenatal care is given only to 38% among illiterate rural women, but this percentage may reach 80% in urban areas and for women educated up to the level of secondary school. Delivery at hospital and post labour care shows almost the same pattern.

Low birth weight (LBW) (<2500gm) which is reported to reach 35% in Yemen is also a sensitive parameter which reflect the quality of maternal care, is associated with increased peri-natal mortality and morbidity , affect future growth and development and, comes next to diarrhea and respiratory infection as a cause of death. The government by law is committed to the provision of free health care to all newborn children, special attention was given within the system of integrated management of child health services (IMCI) and to the promotion of breast feeding. The concept of baby friendly hospital was adopted and encouraged.

Methods: Prospective study done in 3 hospitals , 2 in Sana'a and one in Aden over the period of July to October 2004 Retrospective study of the records of newborns admitted to one hospital in Sana'a over the period 1999 – 2004. Prospective study (unpublished mimeo) conducted in one hospital in Sana'a over a period of 12 months in 1978. Reference is made also to information from Family survey (2003) and documents on policies of services for this group adopted by governmental and non-governmental organizations. Traditional and is based mostly on individual experience rather than locally adapted protocols . Morbidity and mortality are still high and are mostly due to prematurity, low birth weight, respiratory and cardiac conditions. This sector needs proper attention from governmental and non-governmental organizations in order to provide the needed resources and to develop uniform protocols for?

50) Title: Prevalence of Hemoglobinopathies among Neonates at Al-Wahda Teaching Hospital –Aden

Authors: Nidhal Abdullah Saeed Ba-Hattab, Anisa M Abood, and Mahmood M Al-Saqaf

Date: 2003

Source: The 13th congress of the Union of the Arab Pediatric Societies

Abstract

Objectives: The objectives of this study were to determine the prevalence of hemoglobinopathies in general and α -thalassemia in particular, to find out possible factors that influence this prevalence, to determine normal reference range of some hematological parameters for neonates and to analyze the relationship between hemoglobinopathies and red cell indices in the cord blood.

Methods: The sample of cord blood was taken from 500 live – born neonates in the period defined between 16th of Aug, and 15th of Dec, 2003 delivered at Al-Wahda Teaching hospital in Aden governorate, Electrophoresis at PH 8.5 and hematological analysis were performed for all the study population, phosphate buffer electrophoresis at pH 7.0 and Hb H inclusion test were used for confirmation of the positive cases of thalassemia.

Results: The prevalence of α -thalassemia trait among the neonates was 10.4% The normal reference values of hematological parameters for neonate appeared as the following: (mean) Hb 15.3 g/dl, RBC 4.5×10^{12} /L, Hct 48%., MCV 107.0 fl, MCH 34.0 pg, MCHC 31.8 g/dl, WBC 11.4×10^9 /L, PLT 233.1×10^9 /L, Hb F 75.2%, Hb A 24.8%.

Conclusions: The prevalence of α - thalassemia trait revealed by this study was lower than those reported from Saudi Arabia, Bahrain and Oman, but higher than those of Jordan, Tunisia and Algeria. The hematological analysis showed that low MCV with decreased MCH at birth could be useful diagnostic parameters for detection of alpha – thalassemia in neonates, it also revealed a direct association between the quantity of Hb Bart's and the red cell indices.

Recommendations: To conduct a nation-wide community based study to estimate the real magnitude of the hemoglobinopathies in Yemen and the establishing a hematological reference for the Yemeni neonates.

51) Title: Indications for Blood Transfusion in Pediatrics

Authors: Wael Kahiry and Nagat A. R. Hakimy

Date: 2005

Source: The 13th congress of the Union of the Arab Pediatric Societies

Abstract

Introduction: Transfusion of blood to children even when indicated, is not without risk, .New guidelines have recently been published by the British Committee for standards in Hematology to optimize transfusion practice for children

Objective: To study the common indications for blood transfusion in the paediatric Department of Aden General Teaching hospital.

Patients and Methods: This is a retrospective study for pediatric patients blood transfusion at Aden General Teaching hospital, for the period October-December 2005 .The study included 103 pediatric patients (mean age± 43.2 39.2 months). More females were transfused (64.1%) than males (35.9%), the f: M ratio (1.8:1).

Results: for the last three months in the paediatric Department of Aden General Teaching Hospital, 24.800 ml of blood was transfused for 103 pediatric patients in rate of 269.6 ml/day. around 25.2% of patients received blood for twice or more times for the same indication, and this of occurs in 87.5% of neonates. For 9.7% of patients, no indication was reported. Common indications for blood transfusion were hematological indications(54.4% such is iron deficiency anaemia 26.2%, sickle cell disease 11.7% and thalassaemia syndrome 7.7%. Followed by other medical indications (35.9%) such as neonatal hemolytic anaemia (under investigations) 13.6%,hemolysis associated with malaria infection 12.6% and neonatal septicemia 8.7%. Indications were not related to sex ($p>0.05$), while strongly related to age ($p<0.00001$).Common indications in neonates were hemolytic anaemia and neonatal septicemia. Iron deficiency anaemia was a common indication in infants, preschool and school children. Sickle cell disease was a common indication in toddlers. while hemolysis associated with malaria was common in preschool and school children.

Conclusion & Recommendation: sick neonates are one of the most heavily transfused groups of patients in this study. However, most neonatal transfusion practice remains opinion based rather than truly evidence based. since blood is a tissue, blood transfusion is a tissue transplantation, an operation that should be attended by paediatricians and not to let the baby alone fighting blood.

52) Title: Plasma Leukotriene Level in Atopic and Non- Atopic Asthmatic Children and its Correlation to Severity of the Disease

Authors: Suha Abdul Malik Aghbari, Ibrahim El-Araby, Ihab El-Sawy, and Omnya Bdr-Eldin

Date: 2005

Source: The 13th congress of the Union of the Arab Pediatric Societies

Abstract

Asthma is a major health problem in many countries, and despite the advances in the understanding and management of the disease it still remains a most common chronic condition in children and adolescents

Aim: Our work is thus meant to measure the plasma leukotriene levels in atopic and non-atopic asthmatic children and to correlate them to severity of asthma exacerbation in both groups.

Subjects & methods: The study was conducted on 90 children with acute asthma exacerbation and 15 healthy children as controls. Based on prick skin tests the asthmatic patients were divided into atopic and non-atopic (45 each). Each group had equal numbers of patients with mild, moderate, and severe exacerbation (15 each) based on clinical findings and measurement of PEFR and SpO₂%.

Results: The mean level of plasma LTE₄ in all asthmatic children (atopic and non-atopic) was nearly triple that of healthy controls. The mean plasma LTE₄ was highest in cases of atopic asthma, less in non-atopic asthmatics and least in control. There was no statistical significant difference in plasma LTE₄ levels between atopics and non-atopics during mild asthma exacerbation. In moderate and severe asthma exacerbation, the plasma LTE₄ levels were significantly higher in atopics compared to non-atopics. Within each asthmatic group whether atopic or non-atopic, plasma LTE₄ level was significantly higher in severe cases compared to mild and moderate. But there was no statistical significant difference between mild and moderate cases. We also found highly significant correlation between plasma LTE₄ level and laboratory parameters of severity of exacerbation.

Conclusions & Recommendations: We thus conclude that there is a differential rise of plasma LTE₄ during exacerbation of bronchial asthma in children more in atopics than non-atopics. The levels correlate well with the severity of exacerbation in both groups. The study recommends to test the clinical efficacy of specific leukotriene receptors antagonists or leukotriene synthesis inhibitors as a therapeutic modality that would also give an indirect evidence of the involvement of LTE₄ in aggravation of asthma.

53) Title: Indicators of Acute Bacterial Meningitis in Children at Al-Wahda Teaching Hospital

Author: Nagat Ali Saeed

Date: 2005

Source: The 13th congress of the Union of the Arab Pediatric Societies

Abstract

Objective: Bacterial meningitis is an important serious illness worldwide and remains an important cause of death and neurological sequela in Yemeni children. The clinical features of meningitis are often nonspecific and in this situation may overlap with those of malaria. Early diagnosis and appropriate antibiotic treatment are the most important steps in management. The objective of this study was to identify clinical indicators of acute bacterial meningitis {fever, convulsion, neck stiffness, bulging anterior fontanel, impaired consciousness, and other symptoms and signs} together with CSF analysis.

Materials and Methods: The study was done in Al-Wahda teaching hospital, which serve people in Aden governorate and surrounding area {Lhj, Abin, Althali}. Design study is prospective description study including all pediatric admission in isolation ward. The study period was between August 2004-Nov 2005.

Result: A total of 115 [14.9%] of 769 admission in isolation ward were suspected of having clinically meningitis. From 102 cases (88.6%) who had received lumber puncture only 31 cases (30.3%) with positive diagnostic criteria of CSF findings (turbid, decrease glucose<40mg/dl, increase protein>80 mg /dl and leuckocytosis with or without positive gram stein and/or culture), and 12cases (11.7%) had possible meningitis. The remaining 59 cases (57.8%) showed normal CSF analysis more than one newrological indicator (bulging fontanel ,neck stiffness, seizure, and impaired consciousness) was present in those cases who had positive CSF analysis. 29 cases (25.2%) of those who having suspected clinical meningitis has positive malarial slide. Children <1 year of age are more affected (60.8%). Total male to female ratio was 1.2:1.

Conclusion:The presence of more than one clinical indicators is a clear indication for lumber puncture and/or presumptive treatment.

54) Title: Anesthesia on Babies under One Years Old. Basuheb Military Hospital, Aden

Authors: Humberto Palacios Alvarez, Yvonee Cardenas Torres, and Maria E Andrade Alvarez lie: Laiz plarlay Coss

Date: 2005

Source: The 13th congress of the Union of the Arab Pediatric Societies

Abstract

Objectives: To make a statistical retrospective analysis of anesthesia applied to babies under one year old, thus as their results and complications.

Methodology: Was developed a workshop by the anesthesiologists of the Cuban Medical Brigade who is working now in the Basuheb Military Hospital of Aden, since March of the 2003 to September of the 2005.

More than 100 (113) babies, were operated under general anesthesia from different pathologist, by different specialty among them: Neurosurgery, Maxilo facial Surgery, Orthopedics, General Surgery, Ophthalmology and ENT, and others. All babies were received in the Surgical Unit, with previous evaluation by Pediatric. Doctor. A vein approach with canule # 22 or 24 was done in order to give premedication to them, with atropine on doses of 0.01 mg/kg of weight. Induction of anesthesia was carried out with Ketamine hydrochloride on doses of 2 mg/kg of weight and suxametonium on doses of 1 mg/kg IV, after that endotrachial intubation was performed.

Oxygen + Nitrous Oxide (1:1), and Halothane were used for anesthesia maintenance and Pipecuronium Bromide was used as muscle relaxant. For performing the recovery of anesthesia, we used Neostigmine Sulphate as antagonism of neuromuscular blockade; later endotrachial extubation was done.

The appearance of complications was evaluated in the different stages of the anesthesia and baby's condition at last of surgical intervention. Either complication, during operation, or after operation, was treated by us and a competent Pediatrician.

Results: Total of babies (113) under one year old, received general anesthesia, 12 of them (10.6%) suffered from tachycardia during operation, 3 of them (2.6%) the recovery from anesthesia were later, 2 of them suffered from (1.8%) Bronchospasm and 1 of them (0.8%) suffered from severe neurological damage due to several congenital malformations, cardiac arrest during operation was recuperated, but he died after operation. 97 of them (85.8%) didn't have complications, and their recovery from anesthesia were successfully,

Conclusions: The general anesthesia with ketamine + Nitrous Oxide, associate or not with Halothane is useful in neonates and babies under one year old.

55) Title: Hemoglobin Level among Healthy Adult Yemeni People

Supervisor: Professor, Ahmad Al-Hadad

Authors: Mohammed Saleh Al-Saifi, Soaad Qassim Al-Atab, Mohammed Ahmed Sabra, Rabab Hasan Ahmed Badi, Muaaz Abdulqawi al-Muntaseer , Rawdah Noman al-badani, Mohammed Saleh Mohammed, Nawal Abdullah al-yafee, Samah Ali Saleh Abeya, and Abeer Murshed Al-badani

Date: 2005

Source: The 17th scientific Conference for Graduation Researches Sana'a University April 2006

Abstract

This non intervention descriptive cross sectional study was done to detect hemoglobin level among healthy adult Yemeni people (15 ->40 years old) represented by Sana'a (altitude), Ibb (medial), Al-hodidah (at sea level), in order to find standard hemoglobin level through study the different variables that can be effect hemoglobin concentration like (sex, age, smoking, income level, chewing Qat, climatic factor, nutrition, occupation, residency and education). It included 806 volunteer, data collected by special questionnaire and blood sample for hemoglobin detection for every person does not excluded by study criteria, hemoglobin level was detected Cyanmethaemoglobin Method data managed by SPSS system. The results of study were as follows: mean Hemoglobin (Hb) level is 14.3 +1.6 and 12.3 +2.0 for male and female respectively, with 15.3% higher among male. Hb level decreased among male after 40 year age (mean Hb 14.5 + 1.4 in adult <40 years and 13.9 + 1.8 in those >40 years), whereas Hb is increase among female >40 years than those adult (mean Hb 12.1 + 2.1 in adult <40 year and 12.9 + 1.8 among those >40 year), with notice hemoglobin level is low among women in reproductive age. Increase Hb level among smoker (4.4%) than non smoker, and in chewing qat (7.7%) than those not chewing qat. The study show significant association with direct relationship between Hb and climate, high level in altitude (15.1 + 1.4) (23.7%) and medial (13.6 + 1.6)(11.6%) and lower at sea level (12.2 + 1.8). Also show significant association between Hb and occupation, with higher Hb among employee and others, and low level among student, also increase in educated (13.9 + 1.9)(6%) than non educated (13.1 + 2.0) and direct association between income level and Hb, level (13.0 + 2.0, 14.3 + 1.5, and 14 + 1.5) for those with <12000 YR, <25000 YR >25000 YR respectively. Finally there is increase in Hb level among those living in rural area, than those in urban area. And high among those depend mainly on protein nutrition (2.9%) (11.1%) then carbohydrate and fat respectively

56) Title: Role of Medical Records in Improving the Quality of Health Care In The Governmental Hospitals In Sana'a Yemen From (May-June 2005)

Supervisor: Khalid Ghailan

Authors: Alyaa Abdulrahman Al-Aghbari, Mohammed Anwar Abo-Kaff, Manal Salim Ali Naji al-Yafee, Maysoon Saleh Mohammad Zakaryah Ahmed Abo-Ali, Ebtisam Saleh Al-Zendani, Sakher Ahmed Asaad, Anas Hamdan Al-Zaraoor, and Ali Saeed Mahdi Saeed

Date: 2005

Source: The 17th Scientific Conference for Graduation Researches Sana'a University, April 2006

Abstract

Medical records form an essential part of a patient's present and future care. The main aim of this research is to provide essential information on the role of medical record in improving the quality of health care provided in the Governmental Hospitals in Sana'a, Yemen.

This research has taken place in the Governmental Hospitals: Sana'a Yemen:

- Al-Kuwait Hospital.
- Al-Gomhoori Hospital.
- Al- Sabeen Hospital.
- Al-Thawara Hospital.
- Al-Shorta Hospital.
- Al-Askari Hospital.

600 Physicians, "100 physicians from each hospital" were given self administered questionnaire between May and June of 2005. In Sana'a city.

The questionnaire contained numerous close-ended question about the medical record basic form and problems the physicians may face with the current medical records. In the beginning, the questionnaire was written in English and tested, then the questionnaire was translated to Arabic.

The research showed that most (85.50%) of physicians agreed that the medical records play an important role in improving the quality of health care provided in the hospitals and they focused on some problems they face with the current medical records. Our suggestions include the importance of focusing on the identified problems and creating the solutions for them for better medical record management.

57) Title: Alternative Medicine in Yemen (Knowledge, Attitude & Practice)

Supervisor: Prof. Ahamd Al-Hadad

Authors: Adnan Hatdar Hazaa Anam, Fwaad Mohammed al-Badani, Abdullah Abduljabar Ahmed, Abdo Naji al-Sharjabi, Anwar Abdullah al-Junaeed, Jubran Hasan Al-amari, Waelh Mohammed al-Abssi, Ejlal Yahua al-shehari, and Naseem Esmaeel al-Mahaqeri, Dalia Abdullah Abdullah

Date: 2005

Source: The 17th Scientific Conference for Graduation Researches Sana'a University, April 2006

Abstract

The aim of our study was to evaluate knowledge, attitude & practice among Yemeni people about alternative medicine. The study carried on 2000 persons distributed in 7 governorate, during period from 8/2004-1/11/2004. These people were selected by a simple random method. The data were collected by self administered questionnaire & personal interview.

It shows :

- 1- a high level of knowledge, & practice among Yemeni people
- 2- The herbal medicine is the most famous type of alternative medicine followed by massages & acupuncture.
- 3- The common mean of receiving the knowledge is by its popularity in Yemeni community.
- 4- The common diseases treated by alternative medicine are as the following order:
 - Joint problems
 - Abdominal problems
 - Then renal & urinary problems
 - headache, neurologic & psychological problems, skin diseases & finally the respiratory problems
 - The majority of customers who deal with a kind of alternative medicine.

**58) Title Quality of Ante Natal Care in Govoernment of
Hospitals of Sana'a City**

Supervisor: Prof. Ahmad Al-Hadad and Dr, Intissar Al-Sa 'eedi

**Authors: Aiman Adel Qaqat, Mubasher Awn, Ibrahim Al-Zamili, and
Mohammed Ziad**

Date: 2005

**Source: The 17th scientific Conference for Graduation Researches
Sana'a University, April 2006**

Abstract

The worsening in general health situation especially that of woman and elevation of mortality incidence especially maternal mortality in Yemen concerning those related to pregnancy and labor that might be direct or indirect causes responsible for what we recently mentioned. This research aimed to evaluate ante natal care in governmental hospitals of Sana'a city. During period of 10th of July to 20th of August 2005, this is through evaluation of efficiency of services providers, manners of health education and methods of receiving and dealing with service attendant. We chose a sample of attendant (290 cases) with denoting service providers for each case whereby each case we asked to answer open and closed questions introduced in a well arranged questionnaire. This research was done in each of Al-Sabeen, Al-Gumhoury and Al-Thawra Hospitals considering that these are the major hospitals in Sana'a city. During this short period we obtained clear results, mainly characterized by poor health knowledge in each of its types. That was so clear among percentage of mothers that lack heath knowledge about importance of antenatal care and regular follow up through return cards only 29% of sample was having these cards. This problem was of two aspects, first by mother through inattention, laziness, economical state and transportation. The other aspect by doctor through lack of sufficient care (40%), overcrowding of the service (30%) and other causes such as bad handling (20%). The study observed a poor attendance in taking full obstetric history, with concentration on periodic examination such as blood pressure and ignoring of examination of edema signs concerning laboratory examination ; blood group and Rhesus factor were the least concerned by 12% of cases only despite their great importance. We also have denoted that great percent of return case was due to disease complaint (63%), but not only for follow up of pregnancy.

It's important to mention that most of doctors ignore guiding patient for importance of breasts care during pregnancy by a percentage reached 85% and

importance of personal hygiene by 78%. In the end it was found that 52% of women in our sample was unsatisfied about the antenatal care services

59) Title: Stillbirth Rate in Al-Sabeen Hospital

Supervisors: Prof. Ahamd Al-Hadad and Intissar Al-Sa'eedi

Authors: Lamia Mutaharzaid, Majedah Abdulrahman Radman, Jameel Ja'afar Jaber Alhelaly, Huda Hussein Al-Hayouti, Aseel Jameel Taha Mujahed , Iman Ahmed Amer , Altaf Abdul-Razaq Alqamesh, Salman Yousif Yaqoub, Ahmed Abdulqader, and Shawqi Abdullah Al-Sabahi

Date: 2004

Source: The 17th scientific Conference for Graduation Researches Sana'a University, April 2006

Abstract

- Stillbirth is the single largest group contributing to deaths between 20 weeks and one year of age.
- In our study, stillbirth is defined as the delivery of dead fetus after 28 weeks of gestation.
- The rate of stillbirth in this study that was done in Al-Sabeen Hospital 2004 was 43.4 per 1000 births. This high rate in comparison to that in developed countries which was 5.8 per 1000 births indicates the importance of improving the antenatal care and intrapartum management .
- Unexplained intrauterine fetal death was the commonest which need more evaluation and more specific investigations to identify the definitive cause.
- Mechanical causes were the second commonest category that emphasize on the quality of obstetric services and the experience of obstetric staff.
- Fetal causes occupied the third rank of stillbirth causes in which congenital malformations represent most of the cases.
- Pre-eclampsia was the commonest maternal condition affecting stillbirth.
- Chronic maternal diseases need more evaluation and high risk pregnant women should be educated about importance of antenatal care.
- From the study, cesarean section was associated with less number of stillbirth cases highlighting its protection in cases of fetal distress.
- A considerable percentage of stillbirth cases were found in women with a previous history of stillbirth indicating the importance of work-up to identify the cause.
- Preterm babies are more liable to complications and thus stillbirth in contrast to full-term babies who can withstand the unfavorable intrauterine environment. Low birth weight is significantly associated with stillbirth.
- The proportion of fresh stillborn was significantly high which points to the need of improving intrapartum management. Macerated stillborn babies also occupied a noticeable percentage that indicates poor antenatal care.
- Stillbirth was more frequent in grand-multigravida and in women of high parity.

60) Title: Evaluation of Health Services in Two Districts in AlMehweet Governorate

Supervisor: Yahia Ahmad Arja'a

Authors: Osama Mohammed Al-Qadeb, Mohammed Al-Zaroor, Abdullellah Abdullah Basheer, Eman Ahmed Hadi Ajlann, Abdullah Ebraheim Al-Abyad, Azeza Ahmed ali Jarrosh, Salah Mohammed Yahya , Huda Saeed al-Aswadi, Amr Mohammed Jumaa ,and Hayam Awad Raashan

Date: 2004

Source: The 17th scientific Conference for Graduation Researches Sana'a University

Abstract

Throughout our clinical training in the hospitals, we used and observe that majority of the patients were from the governorates rural areas. Thus by taking the clinical history for such patients we found out that their complains were the side effects resulted sufferings of prior health problems which could have been avoided by the physicans or by the Para health workers right in the health centers associated to each governorate. Nevertheless there came to our minds tremendous lots of questions about the availability and affordability for the health services over the villages? Moreover about the range of the services qualities that could be provided right here?

Hence the research object was to provide the health services in the two directorate of the town of Al Mehweet in Mehweet Gov itself in terms of the health facilities, and the nursery besides to get utilized by the services, the knowledge and the protective procedures against the diseases and the advantage taking of the available services together with the beneficiaries stratification, moreover with the management performances for the health centers over the mentioned regions as a whole It was intended to choose the two directorates of Mehweet and the town of Mehweet, while the choosing of the health units over the Mehweet directorates has been in random choice. Herein there has been chosen by random for 6 unit's right from 11 units. Herein there has been the study for all the health centers available over the town directorates. The statements in regard were collected throughout the questionnaires and by the observation by the researchers during the periods Aug 22nd 2004 until Sept 09th - 2004. The results were as follows: *Firstly: Evaluation in favor of the health facilities*

- 1- Al Gamhoori Hospital
- 2- Center of Mother / Child
- 3- Health Units are 8 in number

Secondly:

The evaluation of the nursery phenomenon and the utilize of the services and the substantial burden costs to take the advantage and the know-how of the protectiveness against the diseases and the knowledge of available hearth services

Thirdly:

Evaluation of the Beneficiaries satisfaction and Acceptance.

There has been found out that the majority of the heath facilities have the location closer to the beneficiaries, and the time mean of duration to reach the health facility 28 minutes. The health worker deal mean with the patient good recorded at rate of , 59%of the beneficiaries obtained the preference and priority for the medicines and drugs in regard within the health facility and the acceptance of the patients for the provided service reached 59%.

Fourthly:

The management performance of the offices of health in the town of Mehweet were observed as a whole in the whole of Al-Mehweet, but the much more better in the town because it has a special headquarter and has the best accessories and accompaniments and firstly has the better cadre in terms of qualifications.

61) Title: Factors Affecting Family Planning In Yemeni Women

Supervisor: Prof. Ahmad Al-Hadad

Authors: Rawfah Hasan Mushreel , Kamash Saleh Al- Shaibah, Bushrah Ali Al-Shami , Amatalrazaq Al-Mutawakel, Hanan Abdullah Al-Washali, Mohammed Saleh Al-Te, Kareemah Zaied Al-Ansi, Khaled Abduurabuh Al-Abesi, Mohammed Hasan Dahnan ,and Ali Shaikh Ali Muhsee

Date: 2005

Source: The 17th scientific Conference for Graduation Researches Sana'a University, April 2006

Abstract

They studied parts of the effective factors that use family planning means. The study covered (915) married women at the age of procreation in the governorates: Hodeidah- Ibb-Sada'a –Mareb. The samples were chosen randomly in the health care centers in the governorates, the data were taken through the questionnaire rationed in about 22 questions. It covered the following variables: Governorate- place of residence- Women's age-women's work- Husband and woman education- number of Abortion times- number of pregnancy times – number of alive babies- Duration after the last procreation – Kerds of used equipments- time to getting to the health service centers. After taking and analyzing the date that was collected from those married women we got the following results: The rate of used family planning means in the governorates that the study covered was about 50% of them. The use rate was more than the half in the governorates Sada'a, as about 43.2%, and the minimum rate use in Mareb about 29%. The pills were used much more the means in all the governorates, they were about 46.9% loops, then injections, and the minimum was for the condom in about 1.2%. The study show that the use in the urban areas was more than the other in the rural areas, and that the pills were the only thing they use much in urban and rural areas the rejection of means was the desire to get more children (babies) in all the governments except for Hodeidah because of the husband's rejection. The motives of using the means was for the safety of mother. The husband's opinion was the minimum rate. For those who chose more means was that means in of less affection and that was about 74.3%. The study show that women from 31-40 years were the maximum classis that use it, whereas the minimum of them who used between the ages 15-

20 years. As a result of education among women, it was noticed that the use of means increases for the university women which was about 53.8%.

In addition, the rate of using that can be seen through the level of a husband's education. The use increases according to the educational level of a husband. distance factor, also, has a significant role in the case of ladies who walk on feet, and the minimum distance they walk was about 15 minutes and that is 88.8%. Time of pregnancy for the used and non-used ones was the sum four times for pregnancy. As the study show that more that two thirds (67% and more) who use the means of family planning for the last time of procreation was more than two years, whereas more than two thirds of the women who don't use family planning means was the time after the last procreation in less than 6 months.

62) Title: Study of Some Social and Economic Aspects Related to Breast-Feeding Practice

Supervisors: Prof. Khalid Gailan Sa'eed and Dr. Entesar Al-Sa'eedi

Authors: Ali Abdulwahhab Al-Moftee, Ibtesam Ali Al-Hababi, Amal Mohammad Mosh'him, Mosa'ab Abdullah al-Ashwal, Bushra Mohammad Al-Anesi, Na'eema Ahmad Al-Somahi, Fahd Ahmad Al-Zaheri , Raja'a Ali Al-Sanafi, Ghalib Ahmad Al-Jahemi, and Zobaidah Abdulmognie al-Sanabani

Date: 2005

Source: The 17th scientific Conference for Graduation Researches Sana'a University

Abstract

Infant's food consist in his mothers breast by Allah's will and become pure milk composed of all basic kinds of food for the baby's growing .

General Objective: Study of Some Social and Economic Aspects Related To Breast-Feeding Practice.

Results and Discussion: It has shown that from the study (58.90%) from mothers suckle their children breast feeding, and a mixed sucking is (37.00%) artificial feeding (4.10%), Little families from those laying under poverty line use replace sucking, it's at the rate (28.5%) and more depend of mixed sucking they are (52.03%) but for the proper position during sucking was unstable as most mothers fellow a part and ignore the other part of it.

The rates of procedures among mothers differ from one to the other during sucking, most mothers use breast feeding were not smokers (84.35%) and those not chewers (53.05%), not drinking much coffee (87.05%) and most mothers indicated to many kinds of food in which they believe in decreasing milk and were right. Mothers gave their children other food during the first 4 months (96.99%) mostly using water (73.06%), mothers depend on breast feeding as a way of protecting their self from pregnancy (70.33%) and part of them use mixed sucking. The study showed that children stopped breast feeding (38.85%) under the age of 6 months and pregnancy was the main reason for ceasing (35.31%), child rejection for milk (25.64%)

Conclusion: The study had shown that breast feeding in all it's common kinds in Sana'a town, Poor families mostly fellow breast feeding and they are few in using mixed or other foods as well as literate mothers fellow it, in spite of the little rate among academic mothers. The proper position for mother and her

**63) Title: Patterns of high Risk Pregnancy among Women
Al-Sabeen, Al-Thawraa and Al-Kuwait Hospitals**

Supervisors: Zanab Anwar Fadl and Athmarhusain Ali

**Authors: Zakaryah Ahmed Al-haddad , Reem Abdulkareem
al-Makhedi, Rashad Mohammed Rashad ,Fatima-
Alzahraa Kamal Qakri,Abdulwaheed Noman Mohammed,
Atima Mohammed Yasser Salafo,Badr Yahya Al-Dawrani,
Rwaa Yahya Ahmed Hamoud Hasan, Mohammed
Abkulqadeer Al-Hebshi ,and Fahed Mohammed Fatee**

Date: 2005

**Source: The 17th scientific Conference for Graduation Researches
Sana'a University**

Abstract

Every family looks forward to a healthy pregnancy and to the birth of a healthy newborn. And for the vast majority of women. Pregnancy follows a fairly routine course. But, for some, there may be unexpected difficulties and challenges along the way with a high-risk pregnancy. A high risk pregnancy is one in which some conditions puts the mother, the developing fetus, or both at higher than normal risk of complications during or after the pregnancy and birth. Some women have increased chances for having a high risk pregnancy because of existing medical conditions, their life-style, their education or factors that may develop with pregnancy. A woman may be labeled as having high risk pregnancy and yet has a perfectly healthy pregnancy which can be achieved by more careful monitoring. Therefore, not all high risk situations are the same and not all women with high risk pregnancies developed complications. Although, some complications of pregnancy are unexpected and may occur without warning, many complications are avoidable with good antenatal care and health awareness which if they are achieved, it will reduce the mortality and morbidity in both mothers and infants. Especially here in Yemen in where there is defect in health knowledge among pregnant women and their husbands concerning risk factors affecting pregnancy and the way of having a healthy pregnancy without or with the least possible complications.

64) Title: Anthropometric Measurements Singletons Live Full Term Newborns

Author: Thuriya Omer Abdulla Al-Sbahi

Date: 2004

Source: Faculty of Medicine and Health Sciences, Aden University

Abstract

The neonatal period is highly vulnerable time for an infant , who is completing many of the physiological required for extra uterine existence . the high neonatal morbidity and mortality rates attest to the fragility of life during this period. Although this neonatal period is considered to be the fist four weeks of life after birth , both fetal and extrauterine life form a continuum during which human growth and development are affected by genetics , socioeconomic and environmental factors . the anthropometric measurements are the most reliable methods for evaluation of the health and nutrition of infants an their mothers . the present study was carried out on thousand Yemeni full tem singleton newborns, 488 males and 512 females during ht first 24 hours of delivery and their mothers who were both subjected to comprehensive history and anthropometric parameters at Al-Wahda Teaching hospital in obstetric and gynecologic department Aden city . The data analysis of seven anthropometric values for 1000 Yemeni newborns revealed the mean birth weight and standard deviations (SD) of term babies (37-42 weeks gestation) was 3113.04 grams (+ 1.48) , 10.09cm (+ 1.02), 30.10cm (+ 1.92) and 10.94cm(+ 1.04) respectively . this study showed statistically significant differences between anthropometric parameters of both sexes with males heavier than females in all the seven parameters, the mean and standard deviations (SD) of birth weight and length of males were 3187.66 gm (516.41) , 49.28 cm (1.82) respectively which were higher than the mean and standard of the birth weight and length of females 3039.04 gm (522.62) and 48.53 cm (1.52) respectively . Birth weight increased with increasing gestational age , maternal weight, literacy and non consanguinity , while decreased birth weight was noticed with maternal smoking Khat chewing and maternal diseases. The mean and SD of maternal ages were 27.43(+ 6.25) years, weight 60.00kg (+ 12.88) height and mid arm circumference 1.55cm (+ 3.86) respectively. comparing these anthropometric parameters with other nations, term newborns and their respectful mothers in Aden city had lower values, but low birth weight (9.3%) was of higher percentage than developed countries and less than some developing countries. these deviations of maternal outcome results in part from inadequate public health education , lack of money to pay for the care and limited access to health facilities and providers . This study recommends special care for maternal health

and nutrition whether during pregnancy or pre-pregnancy, as it is one of the great influential factors related to infant growth and development . furthermore, the importance of anthropometric parameters for health evaluation of each newborn in the community is recommended .the normal reference values mostly used in Yemeni hospitals are primarily of western origin , however , due to environmental differences , these , parameters can not be used for accurate assessment of fetal development and maturity of Yemeni births, moreover , this study provides basic step for future standardization of Yemeni newborns anthropometric parameters .

65) Title: Low Birth Weight Preterm and Term Infants

Author: Entisar Salej Al- Kaaky

Date: 2004

Source: Faculty of Medicine and Health Sciences, Aden University

Abstract

Low birth weight (LBW) is still a problem all over the world , and it is considered as a predictor for neonatal morbidity and mortality . this study was performed to evaluate LBW infants admitted to Al-Wahda Teaching Hospital during the period of study , in order to find out the main clinical problems of this group and to highlight on some maternal risk factors that may be responsible for the delivery of LBW infants , comparing the preterm and term infants with weight (NBW). The preterm infants accounted for 38.5% the term LBW were (24.6%) , while the term NBW represented 36.9% of the total admitted newborns . the majority of preterm infants(73%) were among those with extremely low gestational age < 32 weeks . the main causes of admission among the newborns were respiratory distress syndromes (28.8%) , neonatal sepsis (28.5%) and birth asphyxia (11.9 %) . the preterm infants comprised a high percentage of those admitted with RDS and birth asphyxia (49 % and 21%) compared to (17.2% and 6.3 %) and (15.6 % and 6.3 %) among the term LBW and the term NBW respectively while neonatal sepsis was high among the admitted term LBW (37.5 %) and term NBW (35.4 %) compared to (16%) among preterm infants . Anemia was common problem among all admitted newborns, with a significant proportion among preterm infants, while asymptomatic hypoglycemia (< 45 mg/dl) was common among the preterm and term LBW. Regarding the feeding. the majority (45.5 %) of our newborns depend on formula milk while only (22.7%) were exclusively on breast milk .the main maternal risk factors for preterm . term LBW birth , encountered in our study with significant proportion , were twins pregnancy , previous history of preterm or LBW delivery , premature rupture of membranes , short interpregnancy interval and parity . Primiparity was found to be a risk factor among preterm infants (33%) compared to term LBW (17%) and term NBW (29.1 %) . In addition , maternal anemia was found in one fifth of all our infants mothers , while maternal medical problems such as preeclampsia , ante-partum hemorrhage , and incompetents cervix were risk factors among the mothers of the preterm infants accounting for (15% , 12% , and 5% respectively) . the death rate was high and accounted for 68 our of 260 (26.2%) among the total newborns admitted . The total LBW infants death accounted for (72%) , and the preterm infants comprised about two third of them , majority of them died in the first week of life . RDS (30.9 %) , birth asphyxia (25%) and neonatal sepsis (14.7 %) were the main causes of death among the total admissions , RDS

accounted for a significant proportion among preterm (46.9%) , compared to term LBW(17.6%) and term NBW infants (15.8%) . We concluded that LBW (preterm and term) infants constitute a definite problem , and it is responsible for the high morbidity and death among newborns , in our situation some problems appear to be potentially preventable by improving the antenatal care , routine prenatal and perinatal care , and establishing a neonatal intensive care unit (NICU) with appropriate equipments , and training the staff doctors and nurses locally and abroad , with establishing a maternal ward nearby NICU to give chance for the mothers to take care of their babies and to encourage the breast feeding.

66) Title: Extraction and Characterization of Urease Enzyme of Proteus Spp Isolated From Patients with Urinary Tract Infection in Yemen

Author: Saeed Mohamed Awadh Ismail

Date: 2004

Source: Faculty of Medicine and Health Sciences, Aden University

Abstract

1. This study was included the isolation of 67 isolates of *Prteus* spp from 598 samples of U.T.I patients from different regions in Yemen . Results indicated that 433 samples were positive results of bacteriological culture .
2. Diagnostic results indicated that 62 isolated (92.54 %) were *Proteus mirabilis* while the remaining 5 isolates (7.46%) were *proteus vulgaris* .
3. The sensitivity of these isolates was tested against 18 antibiotic the results showed that the antibiotic Amikacin was found to be the most effective against local isolates with a percentage of resistance 3.22 % , while the antibiotic Cholormphenicol was the least effective 83.87 %.
4. Antibiotic resistance tests have indicated that all the local isolates of *Proteus* spp. except the isolate number 17 were multi-resistant.
5. The studied isolates were divided into 4 groups according to the multiple resistance patterns for antibiotics. the first group included 14 isolates which were resistant to 1 – 4 antibiotics , the second group included 19 isolates showed resistance to 9 – 12 antibiotics , while the fourth group 6 isolates were found to be resistant to 13 – 14 antibiotics . Results indicted that the third group was the dominant one.
6. Analysis indicated that the dominant pattern of multiple resistance to antibiotic was : A-C-Cb-Co-E-L-R-S-T-Pc . The increase in the degree of multiplicity is accompanied by the addition of a specific resistant marker t the pre-existing dominant pattern .
7. The B- lactamase activity of the isolates were investigated by capillary tube and iodometric methods and it was found that 29 isolates (46.77%) were B- lactamase producers .
8. Bounded disc method was used to detect the production of extended spectrum B-lactamases. The results showed that 8 isolates (27.59%) were positive results.
9. Results indicated that all local isolates were Urease producers Isolate number 17 was chose as the best Urease producer .
10. *Proteus mirabilis* Urease was produced from cells isolate number 17 and highly induced in the presence of 0.15 % mM urea.
11. *Proteus mirabilis* Urease of local isolate number 17 was extracted and purified 245 fold with yield of 24 % and specific activity 386 of unit / mg protein by DEAD –Sepharose and Sephacry S-200 chromatographies.

12. Using non-denaturing conditions for polyacrylamide gel electrophoresis with activity staining by using Coomassie Brilliant Blue G-250 1 band were revealed.
13. The molecular weight of the enzyme is about 251000 dalton was determined by SDS-PAGE 47860 dalton by gel filtration.
14. The study indicated that the isoelectric point of ht purified Urease that extracted from isolate number 17 is 5.33.
15. Urease exhibited a maximum activity of 5053.5 unit /ml , and a Km value of 14 mM urea in 20 mM phosphate buffer – 1 mM EDTA- 1mM B-mercapotoethanol at 37 c and pH 7.5 .
16. The enzyme exhibited an optimum temperature of 37c ,and two pH optima at 7.5 and 9.5 Whereas Urease reserve a full of its activity at a pH range 6-9.5 and temperature at 20-40c .
17. The effects of 12 specific substances on Urease activity reserve a full of its activity was investigated; results showed that all of them where competitively inhibit Urease except P-benzoquin which was inhibit Urease on competitively. Flurofamide was the most effective inhibitor.
18. Bacterial inoculums was prepared from the isolate number 17 and used to inoculate the bladder of a 30 young male rabbits, in 3 infected groups each group of 10 animals, One group was preimmunized with Urease whereas the other group was given orally a dose of Flurofamide. One animal was sacrificed from each group / week. Each kidney was removed and divided into two halves; one half was used for morphological study and the other half for bacteriological study. Urine was collected at the time of sacrifice for bacteriological study and a pH determination. The chemical composition of urinary stones formed was studied. The followed results was recorded :
 - a. The result indicated persisted of *Proteus* infection in bladder and kidney of preimmunized and non-immunized rabbits. No infection with *Proteus* was recorded in bladder kidney of the Flurofamide treated animals.
 - b. All the preimmunized and non-immunized infected animals were showed with alkaline urine, whereas the Flurofamide treated animals were showed acidurea.
 - c. Urinary bladder and kidney stones were found in 50 % and 40% respectively of the infected non-immunized animals, whereas in infected immunized animals these stones are found 40% and 30% respectively.
 - d. Urinary stones were composed mainly of struvite and a small amount of apatite carbonate and few mixed stones.

**67) Title: Maternal Mortality Causes and Some Related Factors
in Two Maternity Hospital in Aden Governorate**

Author: Nawal Abdo Mohammed Ali Al-Zyadi

Date: 2004

Source: Faculty of Medicine and Health Sciences, Aden University

Abstract

Maternal death is a major public health problem challenging the medical community especially in the developing countries ,half a million maternal deaths occur annually 99% of them in developing countries , and most of these deaths are preventable Yemen has one of them the highest mortality ratios in the world 800-1400 from 100.000 live births , This study was performed in Al – Wahda Teaching hospital and Aden hospital in the period from 1st of January 2001 to 31st December 2003 , with the aim to identify the maternal mortality ratio , causes and some related factors . The maternal deaths sheets were collected from the archive of the two hospitals and from the period of study, there were a total of 52 maternal deaths and 21.388 live births giving a maternal mortality ratio of 243 per 100.000 live births. Direct maternal deaths constitute 77% of the total deaths and indirect deaths 23% of them. The leading direct causes of maternal deaths were hemorrhage (21.2 %) , followed by sepsis (17.3%) , pregnancy induced hypertension (15.4%) and rupture uterus (7.7%) Entopic pregnancy account for (5.7%) of the deaths , while abortions and vesicular moles accounting form 11.5 of them , followed by anemia and chronic hypertension in a percentage of 3.9% each while myocardial infarction and diabetes mellitus account for 1.9% each significant number of maternal deaths ($p < 0.01$) occur in postpartum period (80.7%) the age group > 35 Multiparty , no antenatal care , delay seeking care , by the patients and at health institution were important related factors , in maternal death , we concluded that maternal mortality ratio is high and reducing the maternal mortality need a community , based health education on the risks during pregnancy and child birth improved health facilities and better training of the health personnel .

68) Title: Bacterial Distribution Analysis of the Atmosphere of Two Hospitals in Ibb, Yemen

Author: Al-Shahwani MF.

Date: 2005

Source: East Mediterr Health J. 2005 Sep-Nov; 11(5-6):1115-9.

Abstract

A bacteriological distribution analysis of the air was carried out at 8 sites in each of 2 general hospitals in Ibb during the period February-June 2002. Only 3 sites, reception hall, hospital passages and outpatient clinic, gave meaningful values for the distribution of bacteria in the atmospheric air. In these locations, mean values for total plate count, lactose fermenting bacteria, haemolytic bacteria and non-lactose fermenting bacteria were 478.6 colony forming units (cfu)/m³, 24.9 cfu/m³, 6.5 cfu/m³, and 4.8 cfu/m³ respectively. The reception hall had the highest bacterial count, followed by hospital passages and the outpatient clinic. The highest bacterial count was for 08.00, followed by 14.00 and 18.00.

69) Title: Evaluation of a Program for Control of Schistosoma Haematobium Infection in Yemen

Author: Nagi MA.

Date: 2005

Source: East Mediterr Health J. 2005 Sep-Nov; 11(5-6):977-87.

Abstract

An intervention study was conducted in Khamir, north of Sana'a, for control of urinary schistosomiasis using chemotherapy and health education. The validity and cost-effectiveness of reagent strips as a rapid diagnostic tool to screen for *Schistosoma haematobium* infection was also assessed along with visible haematuria. Prevalence of *S. haematobium* infection 14 months post-intervention fell from 58.9% to 5.8% and frequency of heavy infection from 40.0% to 18.9%. Health education sessions resulted in significant decrease in the frequency of contact with water sources and greater adherence to preventive measures. Mass chemotherapy plus health education is a feasible and effective method for reducing *S. haematobium* infection in Yemen. Reagent strips and visible haematuria could be cost-effective in remote areas with limited access to health services.

70) Title: Burden Of Perinatal Conditions in Yemen: A 12-Year Hospital-Based Study

Authors : Banajeh SM, Al-Rabee AM, and Al-Arashi IH.

Date: 2005

Source: East Mediator Health J. 2005 Jul; 11(4):680-9.

Abstrat

We conducted a 12-year retrospective analysis of prenatal characteristics at Al-Sabeen Hospital, Sana'a. There were 62168 births, 2936 stillbirths and 5434 prenatal deaths. There were 14 576 (24.6%) preterm low-birth-weight (LBW) babies. Early neonatal death (ENND) rate was 42.2/1000 live births. Of the 10 546 neonates admitted to the special baby care unit (SBCU), 40.1% were preterm LBW and 2147 (20.4%) died (80.6% were preterm LBW). The last 4 years showed a 17.2% increase in stillbirths and a 40.5% reduction in ENND compared with the first 4 years. In the SBCU, reduction in ENND was > 70%. Respiratory distress accounted for 63.8% of deaths in the SBCU and birth asphyxia 15.0%. Our results reflect the poor antenatal and delivery care services in Yemen.

71) Title: Khat Chewing Amongst UK Resident Male Yemeni Adults: An Exploratory Study

Authors: Kassim S and Croucher R.

Date: 2005

Source: East Mediterr Health J. 2005 Jul; 11(4):680-9.

Abstract

Aim: This cross sectional study recruited adult male Yemeni residents in Sheffield and Birmingham, UK, to assess their use of khat.

Methods: Structured interviews were conducted in both areas during weekly khat chewing sessions. The data collected included socio-demographic characteristics, khat use, dependency on khat, psychological functioning of chewers (GHQ-12) and nicotine dependency. Patterns of khat use, dependency and psychological functioning were correlated with age and self-reported oral problems.

Results: 75 khat chewing volunteers (mean age 40.75 years) were interviewed. Average age of starting khat chewing was 17 years. The weekly amount chewed ranged from 0.25-3.0 khat bundles. Older respondents were more likely to be frequent chewers ($p < 0.025$). 39% were assessed as dependent on khat, which correlated with frequency of use ($p < 0.041$) and being in debt ($p < 0.046$). Khat chewing correlated with nicotine dependence ($p < 0.014$). Self-reported oral problems correlated with both nicotine ($p < 0.04$) and khat dependence ($p < 0.001$). 93% reported that khat chewing promoted excessive smoking and 12% that this practice had initiated their tobacco use.

Conclusions: Khat chewing creates dependency and correlates with tobacco smoking and nicotine dependence. Further research should investigate the correlations between khat and nicotine dependence. Development of a specific measure of khat dependence is recommended.

72) Title: Prenatal Care and Obstetrical Outcomes of Pregnant Women Attending Al-Wahda Teaching Hospital October 2002-September 2003

Author: Raga Ali Saleh

Date: 2004

Source: Saudi Med J. 2006 Jun; 27(6):845-8.

Abstract

Every year more than 200 million women become pregnant .Most pregnancies end with the birth of a live baby to a healthy mother. For some, however, childbirth is not the joyous event it should be but a time of pain, fear, suffering and even death .There is many observational studies support the concept that prenatal care improve pregnancy outcome. The goal of prenatal care is to help the mother to maintain her well-being and achieve a healthy outcome for herself and her infant, to be utilized maximally, for that it must be available, affordable, accessible, and acceptable. Prenatal care is provided at a variety of sites, ranging from private office to the public health and county hospital clinic, to the patients home. In this study we try to evaluate the prenatal care utilization of pregnant women attending AL-Wahda hospital and its effect on the obstetrical outcomes, as well as factors, which influence the prenatal care utilization .This study, is a crosssectional study performed during the period from October 2002 _Septmper2003 in which a total sample of 745 pregnant women delivered in AL-Wahda hospital was selected by systematic sampling technique. The results: 564 (75.7%) pregnant women used the prenatal care services during their pregnancy and 181 (24.3%) were nonusers; 588(78.9%) mothers were from urban areas, while 157 (21.1%) from rural areas. Among users, it was found that the majority of mothers were seeking care during pregnancy in the governmental sectors 350 (62.1%) representing about two folds those seeking care in the private sectors 214 (37.9%),with no significant difference in their outcomes. The main out measures consist of 100 (13.5%) newborns of LBW, 76 (10.2%) cases of preterm birth, 64 (8.6%) cases of perinatal deaths and 5 (0.7%) maternal death as well as other maternal diseases and complications. We concluded that, even single prenatal care visit (1-3), compared to no visit at all, is associated with improved pregnancy outcomes, except some maternal diseases and complications as well as maternal deaths. Increasing the number of prenatal care visits had no effect on the outcome. The percentage of mother with good outcome among users is 83.3% .No any association was found between late time of booking and adverse pregnancy outcomes. PNC utilization in this study shows in general better pregnancy outcomes, especially the problems of LBW,

preterm births and Perinatal deaths are significantly decreased among users of PNC, the predominant age group of pregnant women among users is 20 – 34 years (77.7%), followed by <20 years (74.5%), then those of > 35 years (68.5%), but the attitude toward PNC utilization is almost the same for all age groups, except a significant relation was only found between the age group of < 20 years & > 35 years .The prenatal care utilization is improved with decrease parity of pregnant women, improvement of socioeconomic status and with the increase level of education. Mothers who had selected the governmental sectors for their care during pregnancy were almost house wives. Of high parity, with low socioeconomic status and low educational level, the private sector clients were almost employed women, with low parity, high socioeconomic status and high educational level.

73) Title: Clinico – Epidemiological Analysis Of Down's Syndrome In Yemeni Children Attended At Al-Wahda General Teaching Hospital /Aden

Author: Abdo Ahmed Ali Noman.

Date: 2004

Source: Saudi Med J. 2006 Jun; 27(6):845-8.

Abstract

Down's syndrome (DS) is the most common chromosomal anomaly among humans. This study aims at having baseline data about DS in Yemeni children, as there were no available extensive studies on DS in Yemen. During 11 months were studied 36 cases with DS. There was a significant male predominance (M: F ratio of 1.76:1.0). Seventy –two percent of the studied cases (26/36) were < 3 years of and 86% were < 6 years (31/36). Maternal age at birth was > 30years in about 72% of the studied cases (26/36) while in 28% (10/36) was < 30 years. The mean maternal age at birth was 34.49 years. Birth order of ~ 67% of the studied cases (24/36) was > 5th while 33% (12/36) were with birth order <5th. Recurrence of DS in the same family was detected only once, consisting of 2 siblings born to mother < 30 years old. The symptoms & signs of DS detected among the studied cases were oblique palpebral fissures (100%) ,muscular hypotonia (100%) , mental retardation in 100% of the only evaluated cases (22/22), flat nasal bridge (97%) , microcephaly (94%), flat facial profile (86%),epicanthic folds (86%),hyperflexibility or hyperextensibility (86%), flat occiput (83%), short stature (83%),protruding tongue (75%), wide gap between 1st & 2nd toes (58%),high –arched palate (56%),simian creases (53%), short broad hands (42%), malformed ears (36%), and prominent ears (31%).The associated congenital anomalies detected were microcephaly (94%), CHD (19%) , umbilical hernia (~17%), squint (~14%), cryptorchism (13%) [Of total males], and cataract (~3%). The psychomotor development was significantly delayed in all the evaluated cases (100%)[31/31]. About 89% of the studied cases were found to be malnourished or growth retarded. The history of stillbirths or abortions preceding and / or following the cases was found to be negative in the majority of studied cases. The findings were analyzed comparatively with the available literature on the respect with considerable coincidence.

Key words: Yemeni children, Aden, Down's syndrome, clinico-epidemiological characteristics).

74) Title: Prevalence of Intestinal and Blood Parasites among School Children in Sana'a and Al-Mahweet Provinces Yemen

Authors: Ahmed A. Azazy, Taha Y, Al-Mahbasi, and Hesham M. Al-Mekhlafi

Date: 2001

Source: Yemen medical Journal Vol.4 No.2 Dce.2002

Abstract

The aim of the present study is to determine the prevalence of intestinal and blood parasites among school children aged between 8 and 13 years. Four hundred and seventy three stool samples (302 from rural areas and 171 from urban areas) and the same number of blood samples formed the subject of this study. All stool samples were examined using both normal saline sedimentation and formal ethyl-acetate sedimentation methods. From each blood sample a thin and a thick blood film were prepared using a standard method, and examined for malaria parasite. Of 473 stool samples examined 82% were positive in rural areas and 61% were positive in urban areas for at least one parasite. In rural areas *Ascaris lambricoides* (44%) *Entamoeba histolytica* (43%) . and *Giardia lamblia* (16%) had the highest prevalence *schistosoma mansoni* and *Hymenolepis nana* had similar prevalence 7% and 6% respectively , Ova of *Trichuris trichiura* were found in 2% of examined samples and the lowest prevalence was reported for *Enterobius vermicularis* (0.3%) In urban areas *Entamoeba histolytica* and *Giardia lamblia* had the highest prevalence 52% and 9% respectively , Ova of *Hymenolepis nana* , *Enterobius vermicularis* and *Ascaris lambricoides* were seen in 6% , 3% an 2% respectively . The lowest prevalence was reported for *Trichuris Trichiura* 0.6% followed by *schistosoma mansoni* 1%. No malaria parasites were seen in examined blood films from either area. Results obtained were compared in both areas and also were compared with the previous reported results.

75) Title: Exploration of Adverse Psychological Symptoms in Yemeni Khat Users by the Symptoms Checklist-90 (SCL-90)

Author: Numan N.

Date: 2001

Source: Addiction – 2004 Jan; 99 (1): 61-5

Abstract

Aim: The present study was aimed at assessing associations between psychological symptoms and Khat use in the Yemeni population.

Setting: The survey was performed in 2000/2001, in different zones including three urban and three rural areas.

Participants: The survey was carried out in 800 Yemeni adults (15-76), both male and female, representing mainly urban populations of students, state employees and housewives.

Design: A cross-sectional survey was undertaken using face-to-face interviews and no preset selection criteria regarding profession, socio-economic status, age or gender.

Measurement: The Symptoms Checklist-90 (SCL-90) was used containing 90 items, which cover nine scales of the following domains: somatization, depression, anxiety, phobia, hostility, interpersonal sensitivity, obsessive-compulsive, hostility, interpersonal sensitivity, paranoia and psychoticism. Details of Khat use and socio-demographic data were also collected.

Findings: At least one life-time episode of khat use was reported in 81.6% of men and 43.3% of women. Male users tended to use more frequently. The incidence of adverse psychological symptoms was not greater in khat users; in fact, there was a negative association between the incidence of phobic symptoms and khat use.

Conclusions: Khat use is very common in the Yemeni population, particularly men, but it is not associated with adverse psychological symptoms.

**76) Title: The Quality of Partially Treated Drinking-Water
Produced in Sana'a City**

Authors: Raja'a YA, Al-Ashwal MY, and Al-Ghaili AA.

Date: 2000

Source: East Medditerr Health J.2001 Jan-Mar;7(1-2):247-54

Abstract

We assessed the quality of partially treated drinking water in 30 private establishments in Sana'a City, Republic of Yemen. We also compared the assessed water with the quality of 43 private wells and 18 estate wells. Microbiological examinations showed that 83% of the samples were contaminated; 50% with fecal coliforms and 33% with total coliforms. Concentration of mineral exceeded nominal values in 7% of the samples for nitrates, 10% for iron salts and in 20% of the samples for fluorides. In 33% of the samples, fluoride concentrations were lower than normal. Only 16.7% of the samples were found microbiologically and chemically potable.

77) Title: Overweight and Obesity among Schoolchildren in Sana'a City, Yemen

Authors: Raja'a YA and Bin Mohanna MA.

Date: 2003

Source: Ann Nutr Metab J.2005 Sep-Oct; 49(5):342-5Ecub2005Aug22

Abstract

Aim: To estimate the prevalence of overweight and obesity among schoolchildren in Sana'a City (Yemen) and to examine the association with lifestyle and some socioeconomic factors.

Methods: A cross-sectional study was done in public and private schools in Sana'a City during 2002-2003. We selected 1,253 students by the multistage random sampling technique. Weights and heights were measured to calculate body mass index (BMI = weight/height²). Data about age, sex, education level of the parents, food consumption and lifestyle was also collected.

Results: The mean age of the children was 12.6 +/- 2 years. Overweight was 6.2% and obesity was 1.8%. The prevalence of overweight and obesity was higher among private schoolchildren (p<000), females (p = 0.002), children with a sedentary lifestyle (p = 0.001) and children with a family history of obesity (p = 0.013). Also there is a positive association of overweight/obesity with the education level of the parents (p = 0.013 for the father and p = 0.19 for the mother) and consumption of unhealthy foods.

Conclusion: Prevalence of overweight and obesity is low and positively associated with the education level of the father, private schooling, sedentary lifestyle, and with students who took unhealthy meals.

78) Title: Determination Of Cathinone, Cathine and Norephedrine In Hair Of Yemenite Khat Chewers

Authors: Sporkert F, Pragst F, Bachus R, Masuhr F, Harms L.

Date: 2002

Source: Forensic Sci Int J.2003 Apr 23; 133(1-2):39-46

Abstract

A sensitive and reproducible method for the quantitative determination of cathinone (CTN), norpseudoephedrine (NPE, cathine) and norephedrine (NE) from hair was developed. The compounds were extracted for 4 hours with phosphate buffer pH 2.0, followed by a standard solid phase extraction procedure on a mixed phase column, derivatization with heptafluorobutyric anhydride (HFBA) and GC-MS separation and quantification using D(3)-ephedrine (D(3)-E) and alpha-aminoacetophenone (AAP) as the internal standards. The diastereomers NPE and NE were satisfactorily separated. In the validation, the limits of detection and of quantification were determined at 0.03-0.08 ng/mg and 0.10-0.24 ng/mg, respectively and the interday standard deviation was between 10 and 15%. The method was applied to hair samples of 24 Yemenite khat chewers. All three compounds were detected in 23 of these cases. The concentrations ranged from 0.57 to 23.9 ng/mg for NPE, 0.19-25.0 ng/mg for NE and 0.11-22.7ng/mg for CTN. A highly significant correlation was found between the self-reported data about the khat consumption habits of the volunteers (4-56h chewing per week) and the concentrations of norephedrine and norpseudoephedrine in hair.

**79) Title: The Effect of Khat Chewing On Gallbladder Motility
in a Group of Volunteers**

**Authors: Murugan N, Burkhill G, Williams SG, Padley SP, and Murray-Lyon
IM.**

Date: 2002

Source: Ethnopharmacol J.2003 Jun; 86(2-3):225-7

Abstract

An increase in the of gallstones has been reported from the Middle East and the Republic of Yemen. Changing dietary habits and obesity are thought to be responsible but other local factors may contribute such as chewing the leaves of the khat plant (*Catha edulis* Forsk.) which is a widespread social custom in Yemen. We have studied the effects of khat chewing on gallbladder motility in a group of 10 healthy volunteers. All subjects underwent ultrasound measurements of gallbladder volume after chewing khat leaves or lettuce, which was used as the control prevalence. Results were compared after chewing for up to 2h in the fasting state and in response to a fatty meal. There was no significant change in gallbladder volume after chewing khat compared with lettuce in the fasting state ($P=0.7$) or in gallbladder emptying after a fatty meal ($P=0.4$) and we conclude that khat chewing has no clinically significant effect on gallbladder motility.

80) Title: Distribution, Causes, Effects and Complications of Permanent Physical Disability among Disabled Persons Who Attendant Artificial Limbs Center In Sana'a City

Supervisors: Prof. Yahia Ahmad Raja'a and Abdullah Ali Al-Rwkaimi

Authors: Qannaf Hayel Haider Moghallis, Amal Saleh Thabit Al Radphani, Salem Mohammed Moghallis, Rehab Ahmed Fadl Al Ghori, Roqaya Mansoor Al-Ahdal, Arwa Mohammed al Awdi, Sahar Mohammed seed Rageh, and Mona Abbas Al Dobhany

Date: 2005

Source: The 17th Scientific Conference for Graduation Researches Sana'a University, April 2006

Abstract

The physical disability regarded as a big problem in our country, for this reason we done a descriptive study to describe the distribution, causes, effects and complication of physical disability among disabled persons attendant artificial limb center in Sana'a city. Where we take purposive sample include 400 case from 18 years old and above. Data is collected by interview and questionair given to disabled persons. Data analysis done by spss 12.0 program and excel and word application from our study we found the median of age for disable persons is 30 years and distribution of disability according to sex is more male constitute about 58.5% than female 41.5%. Also we found high distribution of physical disability in urban areas constituted about 65.0% than rural areas constituted about 35%. Also in this study we found the causes of physical disability include amputation cases represent 51.0% from total sample. The causes of amputation include car accident 42.2% followed by gangaren 30.9% mostly as complication of diabetes mellitus, then gunshot 15.7%. After that palest injury 6.9%, finally work accident 4.4%. The other causes of disability which represent 49.0%, include, poliomyelitis 9% fallowed by stroke 8% then fall from hight 5.5%, car accident 5.3%, gun shot 3%, and nerve injury due to injection. Also we found the public services which given to disabled persons not enough, so the diasabled persnon need facilities in all public services because the disability affected in all life style of disabled person

81) Title: Prevalence of antibodies to measles and rubella in Sana'a, Yemen

Authors : Sallam TA, Al-Jaufy AY, Al-Shaibany KS, Ghauth AB, and Best JM

Date: 2005

Source: Vaccine. 2006 Jun 12;

Abstract

Prevalence of antibodies to measles and rubella was tested in sera collected from 1368 subjects in urban and rural Sana'a. Overall, 11.7% had no antibodies to measles and 14.6% had no antibodies to rubella, despite the fact that measles but not rubella vaccine is included in the vaccination program in Yemen. Of 89 children <5 years of age 49 (55.1%) had no detectable antibodies to measles, demonstrating that supplementary measles immunization campaigns are required to prevent virus circulation. Assessment of measles immune status among infants in the first year of life is required to determine the optimum age for measles vaccination. Rubella vaccination should be considered with care in Yemen.

82) Title: Hepatitis B Infection in Yemenis in Sana'a: Pattern and Risk Factors

Authors: Al-Nassiri KA and Raja'a YA.

Date: 2000

Source: East Mediator Health J.2001 Jan-Mar;7(1-2):147-52

Abstract

A cross-sectional seroepidemiological study was conducted among 2652 individuals (age range: 1 month-95 years; median 23 years) who presented at Sana'a Central Health Laboratory in response to a campaign to control hepatitis B virus. Screening was carried out by reverse passive haemagglutination. Specificity of positive samples was determined by enzyme immunoassay. Of 2321 participants, 7.4% were carriers of hepatitis B surface antigen. Risk factors determined by bivariate analysis were age, sex, residence, exposure to cutting and puncturing tools and blood transfusion. Multivariate analysis revealed age to be the best predictor of the carrier rate of hepatitis B virus.

83) Title: Smoking in Yemen, Clinical Patter and Antismoking Drugs

Authors: Mohammad A. Bajubair and Nouradden Al-Jaber

Date: 2005

**Source: Journal of the Arab Board of Medical Specializations Jabms
Vol.7, No.4, 2005**

Abstract

Background: The aim of this study was to estimate the prevalence of smoking among patients in medical wards in Yemen, to determine ecological factors for the problem, and to assess the patients' knowledge about the medical effects of smoking, and attitudes towards cessation and medical actions against smoking.

Materials and Methods: All patients in general medical wards in Althawra Teaching Hospital in Sana'a, the capital of Yemen in a period of study. (140) patients were subjected to a questionnaire-interview protocol, an added and modified Arabic version of the World Health Organization standard questionnaire to study knowledge, attitudes and practices of smoking.

Results: The study revealed the following. Prevalence of tobacco use (40%) with cigarette smoking (26.4%) vs. mathaha/ shisha 20%); the main reason for this higher levels is the result of high association with khat chewing habit which is restricted to Yemen and few other countries (41.9% use tobacco only with khat chewing vs.65% use tobacco mostly in khat sessions). Most patients were superficially knowledgeable about smoking and had favorable attitudes against it. However, most patients did not received any special lectures or actions about smoking, and most stopped smoking due either to diseases 32 (51.6%) or ageing 20 (32.3%). Cardiopulmonary diseases accounted for the majority of smoking cessation 26 (41.9%). The advice from doctors to stop smoking 16 (25%) or to have anti-smoking drugs 2 (3.2%), were so low reflecting the need for further anti-smoking actions.

Conclusion: Smoking still constitutes a major problem among people in Yemen, in spite of their knowledge of its hazards and causing many medical diseases. This may be due to the addictive effect of smoking, association with other social habits like khat in Yemen. There is a need to implement an anti-smoking program for all people but especially medical patients, and possibly legislation to limit the amount of tar and nicotine in cigarettes.

Key words: Smoking in Yemen, prevalence and habits.



**Non-Communicable
Diseases**

1) Title: Endoscopic Management of Pediatric Urolithiasis in a Developing Country

Authors: Holman E, Khan AM, Flasko T, and Toth C, Salah MA.

Date: 2000

Source: Urology 2004 Jan; 63(1): 159- 62.

Abstract

Objectives: To evaluate our experience with the endoscopic management of lower and upper urinary tract stones in pediatric patients in the Republic of Yemen.

Methods: From January 1, 1993 to December 31, 1998, 290 endoscopic operations were performed on 265 pediatric patients up to 14 years of age, 173 on the upper and 117 on the lower urinary tract. Of these procedures, 138 were percutaneous nephrolithotomy, 5 were endopyelotomy combined with percutaneous nephrolithotomy, 30 were ureteral lithotripsy, and 117 were percutaneous cystolithotomy. Of the 265 patients, 244 were boys and 21 girls (male/female ratio 11.6:1, upper tract 7.4:1, lower tract 116:1) aged 8 months to 14 years (mean age 7.1 years). The 26F adult nephroscope and 9.5F semirigid ureteroscope were used.

Results: The overall success rate was 98.9%. Minor complications were observed in 29 patients (10.7%); severe complication did not occur. The nucleus and/or the main component of the stones was ammonium urate in 73.5% of the cases (upper tract 54%, but for those younger than 5 years, it was 75%; lower tract 93%).

Conclusions: The endoscopic management of pediatric urolithiasis is a safe and effective method. To our knowledge, this is the largest reported series on the endoscopic management of pediatric urolithiasis.

2) Title: Thyroid Cancer in Yemen

Authors : Abdulmughni YA, Al-Hureibi MA, Al-Hureibi KA, Ghafoor MA, Al-Wadan AH, and Al-Hureibi YA.

Date: 2002

Source: Saudi Med J. 2004 Jan; 25(1) 55-9

Abstract

Objective: To evaluate the characteristics of thyroid cancer (TC) patients in regard to demographic distribution, histological variants, mode of presentation and modalities of diagnosis and treatment.

Methods: We retrospectively audited the records of 97 consecutive cases with histologically proved thyroid cancer between 1997 and 2001 presenting to the Kuwait University Hospital, Sana'a, Yemen.

Results: Patients with TC in this study comprise 17.7% of goiter patients who were admitted at the same period. Females constituted 89.7% (n=87), and males 10.3% (n=10). The average age of diagnosis was 38.4 years. More than two thirds were at the age of <40. Among patients with goiter, the percentage of carcinoma was higher in the following groups, males (37.9% versus 16.6%, p=0.028), patients aged >47 (25.8% versus 12.6%, p=0.001), patients with enlarged lymph nodes (9.3% versus 3.8%, p=0.020), and patients with recurrent disease after being operated for a presumably benign disease (8.2% versus 2.9%, p=0.012). The average period since patients noticed the swelling until seeking medical help was 4 years. Most patients (90%) came from highland areas. Multinodular swelling was the most common clinical finding (43.3%), and hoarseness was the most common symptom (17.5%). In histopathological examination, papillary carcinoma accounted for 93.8% of the cases and papillary microcarcinoma was found in 10 cases (10.3%). The papillary/follicular carcinoma ratio was 22:1. Hormone assay and ultrasonic imaging were the most commonly used investigations. Sub total thyroidectomy was the most common procedure used in treatment (39%).

Conclusion: Not all histological variants of TC are represented in this study. Papillary carcinoma formed the bulk of TC cases. Salt iodization program might have an effect on the incidence of thyroid malignancy, and on the papillary/follicular carcinoma ratio. Better level of expertise is needed in the field of fine needle aspiration and ultrasonography. A consensus has to be reached, which is based on our environment and capabilities, where TC has to be managed aggressively by experienced surgeons. Yemen is in real need of a national cancer registry to assess the problem on a national level.

3) Title: Diagnostic and Therapeutic Management of Acute Abdomen in Hajah, Yemen

Author: Al-GamrahA.

Date: 2003

Source: Chirurg 2004 Jun; 75(6): 622-6- German

Abstract

We report on the results of surgical treatment in 236 patients admitted with clinical signs of acute abdomen between the 1st of January 2000 and the 31st of December 2003 at the District Hospital of Hajah in northwest Yemen. Hajah, a city 2500 m above sea level, has 60,000 inhabitants and serves an area with 800,000 inhabitants. The hospital was funded by the Saudi Arabian government and built in 1997. Data on patients with acute abdominal pain were prospectively collected and analysed according to diagnosis, age, sex, and duration of symptoms. The most frequent cause was acute appendicitis, followed by incarcerated inguinal hernia. Complicated ulcer diseases of the upper gastrointestinal tract and gynaecological disorders were also frequently diagnosed. Gunshot wounds were the most frequent trauma. Despite the limited diagnostic equipment at the Hajah District Hospital and the short duration of hospital stay, there was no fatal event during the 1-year period analysed. The management of patients with acute abdominal pain and the ability to arrive at exact diagnosis is dependent on the availability of diagnostic means such as abdominal ultrasound and CT scan. However, especially in rural countries with only rudimentary technology, far more depends on the professional training and qualification of the surgeons responsible.

4) Title: Recurrence of Helicobacter Pylori Infection 1 Year after Successful Treatment: Prospective Cohort Study in the Republic of Yemen

Authors: Gunaid AA, Hassan NA, and Murray-Lyon IM.

Date: 2003

Source: Gasttoentertol Hepatol J.2004 Nov; 16(12):1309-4

Abstract

Objectives: To investigate the prevalence of Helicobacter pylori infection in dyspeptic patients in the Republic of Yemen and the recurrence rate 1 year after apparently successful eradication.

Methods: A total of 275 patients with chronic dyspepsia seen in one clinic were enrolled. Gastric biopsies were obtained at endoscopy and H. pylori infection was diagnosed using the rapid urease test. Patients with H. pylori infection were given either clarithromycin or metronidazole-based triple therapy. Six weeks later H. pylori status was assessed using the C-urea breath test (C-UBT). Those who were negative for H. pylori had a further C-UBT after 1 year to establish the recurrence rate.

Results: The prevalence of H. pylori infection at entry to the study was 82.2% [95% confidence interval (CI) 78-87%]. The overall eradication rate 6 weeks after treatment was 49.1% (95% CI 42.6-55.6%) by intention-to-treat analysis, and 60% (95% CI 53-67%) by per-protocol analysis. Recurrence rate of H. pylori infection at 1 year was 34% (95% CI 14-45%) and the only predictor of recurrence was an excess delta C-UBT value less than 3.5 per million but equal to or greater than 2.5 per million at 6 weeks after treatment (odds ratio 2.28; 95% CI 1.17-4.44; P = 0.028).

Conclusion: The prevalence of H. pylori infection in dyspeptic patients in Yemen is very high, the eradication rate with standard triple therapy was unsatisfactory probably because of widespread bacterial resistance due to unrestricted antibiotic use. The recurrence rate of infection at 1 year was high, as a result of recrudescence of incompletely eradicated organisms rather than reinfection.

**5) Title: The Management of Burns in a Developing Country:
an Experience from the Republic of Yemen**

Author: Fadaak H.

Date: 2000

Source: Burns-2002 Feb; 28(1):56-9

Abstract

Background: Burns management and mortality rates have improved in even developing countries including some Arab states. This paper describes an experience with burn victims in the Yemen to draw attention to the victims' plight, the challenge posed to bodies, such as the International Society of Burn Injury (ISBI), and, the basic required corrective measures.

Patients and methods: Between 1996 and 1999, sponsored surgical teams paid four visits to four Yemen cities. The patients presented here are a consecutive series of the plastic surgery operations that the teams performed. No literature on burn care in the Yemen could be traced. **RESULTS:** The cities visited were Mokalla, Sayown, Taiz and Aden. Of 406 plastic procedures, 139 were for post-burn contracture release and are the focus of this paper. The victims were mostly children and the hand (49; 35%) was the most common site. Types of operation performed were release and split skin grafi, excision and full thickness skin grafi, release and local flap, and, multiple Z-plasty.

Conclusions: This experience confirms the believe that, given initiative and efficient organization of available resources, developing countries such as the Yemen can also achieve better burn management. Solutions suggested are determining local health needs; onsite conferences, symposia and training programs; local personnel to visit burn centers overseas; burn research and prevention activities; and epidemiologic studies.

6) Title: The Pattern and Distribution of Malignant Neoplasms among Yemeni Patients

Authors: Al-Thobhani AK, Raja'a YA, and Noman TA.

Date: 2000

Source: Saudi Med J.2001 Oct; 22(10):910-3

Abstract

Objective: This research was aimed at describing the pattern of malignancies among 1,491 patients during 1996 through to 2000 and to explore association with age, sex and site of cancers.

Methods: A research was carried out at a Histopathology Center in Sana'a, Republic of Yemen between the periods August 1996 through to August 2000. All specimens were diagnosed by one pathologist based on the International Classification of Disease for Oncology.

Results: revealed comparable male: female ratio (1:0.92) and mean age of 46.1 +/- 22.8 in males and 44.2 +/-18.3. The most common cancers were the gastrointestinal tract malignancies, 22%. Lymph node cancers constituted 16%, followed by head and neck malignant tumors 12%, skin 10%, urinary tract 8%, bone and soft tissue 8%, breast 8%, female genital system 5%, thyroid gland 2% and finally male genital system, bone marrow and central nervous system/eye 2% each. For female patients breast cancers and gastrointestinal tract cancers were equally the most frequent malignancies. Skin cancers, followed by gastrointestinal tract and male genital system affected mostly older age patients. While bone marrow followed by central nervous system and eye, then bone and soft tissue cancers were mostly diagnosed in young age patients. Within the gastrointestinal tract liver was the most affected site 33% and adenocarcinomas were the most frequent diagnosed type 42%. Among lymph nodes malignancies non-Hodgkin's lymphoma constituted 42%. Oral cavity cancers constituted 73% of head and neck malignancies, where squamous cell carcinoma constituted 65%.

Conclusion: Gastrointestinal tract in general with breast in females, were the most frequent sites of malignancies in the Republic of Yemen. Adenocarcinoma and squamous cell carcinoma were the most frequent types

7) Title: Spontaneous Rupture of a Previously Scared Uterus. A Case Report and an Overview of Risk Factors in Yemen Republic

Author: Dhaifalah I.

Date: 2001

**Source: Bimed pap Med Fac Unic Palacky Olomouc Czech Repub. J.2001
Dec; 145(2):177-8**

Abstract

Maternal mortality is a significant public health problem. In Yemen it is attributable to socioeconomic, reproductive, health-status and health-services factors, as well as to medical causes. Direct obstetrical causes account for 61% of maternal deaths in Yemen 75% after delivery. Hemorrhage has been found as the second cause of maternal death in Yemen, accounting for 23.68% of all causes, while ruptured uterus accounts for 14.19% of maternal deaths in particular. The high percentage of ruptured uterus as a cause of maternal mortality prompted me to report the case below hoping it would shed light on the influence of factors, which can lead to these serious situations in Yemen.

8) Title: Mycetoma in Yemen: Clinic epidemiologic and Histopathologic Study

Authors: Khatri ML, Al-Halali HM, Fouad Khalid M, Saif SA, and Vyas MC.

Date: 2001

Source: Int Dermatol J .2002 Sep; 41(9)586-93

Abstract

Background: Mycetoma is widespread in Yemen, but has not been fully documented.

Methods: A prospective study of 70 patients (53 male, 17 female; from different regions of Yemen) was performed. The clinical profile of the cases was recorded in a special protocol. The diagnosis was based on clinical features, examination of grains, roentgenographic studies, and histopathology (44 cases).

Results: Fifty cases were diagnosed as eumycetoma and 20 as actinomycetoma. The identification of the causative species was performed in 44 cases by histopathologic studies. Among the cases of eumycetoma, *Madurella mycetomatis* was recognized in 27 patients, *Leptosphaeria senegalensis* in two, and pale-grain fungi in two. Among the cases of actinomycetoma, *Streptomyces somaliensis* was seen in eight patients, *Streptomyces madurae* in one, and *Nocardia* species in four. The treatment of eumycetoma patients with ketoconazole and excision in selected cases controlled the disease activity in the majority. Most of the cases of actinomycetoma were better controlled with drug therapy alone, with a combination of penicillin and cotrimoxazole, or cotrimoxazole alone.

Conclusions: Mycetoma is widespread in Yemen, with a higher incidence of eumycetoma and a maximum number of cases from the Hudaida region. A multicenter study is needed to evaluate the exact extent of disease.

9) Title: Cardiovascular Manifestations In Chronic Renal Failure Patients On Hemodialysis

Authors: Al-Ezzy YA, Al-Barraq AO, Al-Hamaty NA, and Haza'a K, Thania SY, Al-Saidy FA.

Date: 2000

Source: Saudi Med J. 2003 Jun; 24 (6): 652-5

Abstract

Objective: To study the characteristics of hemodialized patients included in the study and demonstrate patterns of cardiovascular manifestations in patients as well as the impact of duration of dialysis on these manifestations.

Methods: This is a cross-sectional descriptive study carried out on patients undergoing regular hemodialysis in the Dialysis Unit, Al-Thawra General Hospital, Sana'a, Yemen, between September 2000 and December 2000.

Results: This study was carried out on 50 patients who were on regular hemodialysis; the male to female ratio was 1.3:1 with a mean age of 39.8 +/- 12.6 years and mean dialysis duration of 61.3 +/- 7.57 months. The study revealed the following results: 78% of patients have hypertension with mean systolic blood pressure (BP) of 151 +/- 32 mm Hg and mean diastolic BP of 94 +/- 19 mm Hg, valvular dysfunctions were found in 70%, heart failure in 50%, ischemic changes in 34% and finally 26% of patients have pericardial effusion whereas only one patient (2%) has pericardial rub.

Conclusion: We conclude that cardiovascular manifestations in Al-Thawra General Hospital were found higher than what has been found in other centers worldwide. We recommend to reevaluate the practice in this department particularly the efficiency of dialysis and follow up of the patients. Statistically there was no significant correlation between the duration of dialysis and cardiovascular manifestations.

10) Title: Urinary Tract Infection among Pregnant Women in Al-Mukalla District, Yemen

Author: Al-Haddad Am.

Date: 2002

Source: East Mediterr Health J.2005 May; 11(3):505-10

Abstract

Urinary tract infection (UTI) is a common problem in pregnant woman. This study examined the frequency of UTI in 137 pregnant women attending Al Mukalla maternity hospital from January to June 2002. Urine samples were examined for UTI microscopically and by culture, and sensitivity tests were done for the organisms isolated using a range of antibiotics. Information on age, trimester, parity and number of pregnancies were also collected for each woman. This study showed that 30% of the women suffered from UTI; Escherichia coli was the most frequently isolated organism (41.5%), and it was highly susceptible to chloramphenicol, ciprofloxacin, ceftizoxime and amikacin. Of the variables examined, 53.7% of the infected women were in the age group 15-24 years, 48.8% were in their 3rd trimester and 75.6% had 1-3 children.

11) Title: Transhiatal versus Transthoracic Resection for Oesophageal Carcinoma in Yemen

Authors: Homesh NA, Alsabahi AA, Al-Agmar MH, Alwashaly AA, Valenzuela RE, Alhadid MA, and Alkubati SM.

Date: 2004

Source: Singapore Med J.2006 Jan; 45(1); 54-9

Abstract

Introduction: cancer of the oesophagus is a major problem in Yemen, where most of the patients present with advanced disease. Curative oesophageal resection for carcinoma may be carried out by either the transhiatal or transthoracic technique. The aims of this study were to compare the morbidity, mortality, short term outcome and long term survival of the two techniques in the treatment of oesophageal carcinoma.

Methods: From March 1998 to July 2004,118 patients with cancer of the oesophagus were studied. The tumours in 84 patients were resected by transhiatal oesophagectomy (43) and transthoracic oesophagectomy (41).

Results: The two groups were comparable in terms of age, sex, location of the tumours, risk factors and stage of the disease. There was no significant difference in the mean intensive care unit stay, blood transfusion and mean hospital stay. Anastomotic leak was higher in the transhiatal oesophagectomy group than transthoracic group (21 percent versus 12 percent, p-value is equal to 0.001). Recurrent laryngeal nerve lesion was present in 18.6 percent of the transhiatal group and absent in the transthoracic group. The overall hospital mortality was 8.3 percent with no significant difference between the two groups (transhiatal 9.3 percent versus transthoracic 7.3 percent, p-value is equal to 0.742).

Conclusion: Transhiatal oesophagectomy was associated with a higher incidence of anastomotic complications and recurrent laryngeal nerve lesions, but there was no significant difference in the mortality between the two groups.

12) Title: Expression Of P53, Cyclin D1 And Ki-67 In Pre-Malignant And Malignant Oral Lesions: Association With Clinicopathological Parameters

Authors: Raju B, Mehrotra R, Oijordsbakken G, Al-Sharabi AK, Vasstrand EN, and Ibrahim SO.

Date: 2004

Source: Anticancer Res. J.2005 Nov-Dec; 25(6c):4699-706

Abstract

In this study, a possible association was examined between the immunoeexpressions of p53, cyclin D1, Ki-67 and tobacco exposure and the risk of oral cancer (OC) in premalignant and malignant formalin-fixed, paraffin-embedded oral mucosal tissue specimens from patients from Yemen (n=24, all were pre-malignant) and India (n=16, 11 were OCs). Overexpressions of p53, cyclin D1 and Ki-67 were found in 100%, 45.5% and 80% of the OCs, compared to 65.5%, 82.8% and 85.1% of the pre-malignant lesions, respectively. In the pre-malignant lesions, a statistically significant correlation was found between histopathological grading and expressions of cyclin D1 ($p = 0.001$) and Ki-67 ($p = 0.03$), and between anatomical site and expression of Ki-67 ($p = 0.01$). Coexpressions of the three proteins in the cases examined was found to correlate significantly to each other (cyclin D1: p53, $r = 0.48$, $p = 0.002$; p53: Ki-67, $r = 0.41$, $p = 0.008$) except for cyclin D1: Ki-67. These findings suggest that the expressions of p53, cyclin D1 and Ki-67 might contribute to OC susceptibility in oral mucosal lesions examined from Yemen and India. The importance of the three proteins examined as biomarkers in OC and pre-malignant lesions deserves particular attention because it might offer further understanding of the development of these lesions, particularly in populations heavily exposed to tobacco habits. Abnormalities of both cyclin D1 and Ki-67 might play an important role in the development of oral pre-malignant lesions and warrant further studies. Larger studies are, therefore, necessary in the two countries to examine the role of these biomarkers in OCs and premalignant oral mucosal lesions.

13) Title: Prevalence of Differentiated Thyroid Cancer in 810 Cases of Surgically Treated Goiter in Yemen

Authors: Al-Jaradi M, Sallam A, Jabr H, Borda A, Decaussin-Petrucci M, and Berger N.

Date: 2003

Source: Ann Saudi Med.2005 Sep-Oct; 25(5):394-7

Abstract

Background: In 1990, the World Health Organization (WHO) suggested that severe iodine deficiency exists in Yemen. Therefore, we looked at the prevalence of differentiated thyroid goiter in 810 cases consecutively treated by surgery for goiter.

Methods: This was a retrospective study of 810 surgically operated cases of goiter over a 5-year period (1999-2003). All cases were evaluated on H&E stained sections from embedded, 10% buffered formalin fixed tissue blocks. Special stains and immunohistochemical analysis were done in Yemen and abroad. Most patients were older than 20 years of age and were from the high altitude areas (2000 to 2600 meters above sea level), where iodine deficiency disorders (IDD) are well documented.

Results: In the 810 cases, 729 (90%) were females and the remaining 81 (10%) were males, with female-to-male ratio of 9:1. Differentiated thyroid cancer (DTC) was found in 170 (21%) cases, including 148 (86.4%) females and 22 (13.6%) males. Nearly 60% of the cases were in the age group of 21-40 years. Papillary carcinoma was the most common type of DTC (164 cases, 96.5%).

Conclusions: In a Yemeni population, which has a high prevalence of iodine deficiency, 21% of patients operated on for nodular goiter without pre-operative fine needle aspiration biopsy had thyroid cancer, mostly of the papillary type. In this study, males and elderly patients with goiter had a higher chance of having malignancy.

14) Title: Seroprevalence of Helicobacter Pylori among Children in Sana'a, Yemen

Author: Al-ShamahyHA.

Date: 2004

Source: Ann Saudi Med.2005 Jul –Aug; 25(4):299-303

Abstract

Background: Helicobacter pylori infection is primarily acquired in early childhood. Its transmission routes are debated. The aims of this study were to determine the Seroprevalence of anti-H. pylori immunoglobulin G (IgG) in Yemeni children under 10 years of age, the potential risk factors for contracting H. pylori infection and co-infection of H. pylori with intestinal parasites.

Methods: Enzyme-labeled immunosorbent assay was used to determine the H. pylori prevalence rate among 572 healthy volunteers aged less than 10 years. Formalin ether concentration methods were used to test the prevalence of intestinal parasites (intestinal roundworms and tapeworms). In addition, we interviewed participants regarding potential risk factors for contracting H. pylori infection.

Results: The Seroprevalence of H. pylori antibodies was 9%. The prevalence according to age varied from 0% in children under 2 years to 12.5% in age group 9-10 years. There was a correlation between the amounts of positive antibodies and increasing age. The prevalence rate of H. pylori antibodies was also significantly associated with the practice of drinking water from reused plastic jerry cans, with poor mouth hygiene and with co-infection by intestinal parasites.

Conclusion: The prevalence of H. pylori antibodies in Yemen among children under 10 years of age is higher than that reported from other regions for the same age groups. Yemen shares some but not all potential risk factors for H. pylori infection with countries in which similar socioeconomic conditions are found. A possible way of eliminating H. pylori from the population would be via public health measures, i.e. preventing the reuse of plastic jerry cans, and improving sanitation and the standard of living.

15) Title: The Diagnostic Accuracy of Fine Needle Aspiration Cytology versus Core Needle Biopsy for Palpable Breast Lump(S)

Authors: Homesh NA, Issa MA, and El-Sofiani HA.

Date: 2002

Source: Saudi Med J.2005 Jan; 26(1):42-6

Abstract

Objective: Breast lump is one of the most common surgical problems in females. Surgical biopsy of palpable breast lump was considered the gold standard for the diagnosis of breast lump(s). Emphasis has been placed on improving method for establishing a definitive diagnosis of breast mass prior to surgery. Our aim was to compare the diagnostic accuracy of fine needle aspiration cytology (FNAC) and core needle biopsy (CNB) in patients with palpable breast masses.

Methods: Prospective randomized controlled clinical trial included 296 Female patients with breast lumps, presented to Al-Thawra Teaching Hospital, Sanaa, Yemen between May 1998 - May 2002. All the patients submitted either to FNAC or CNB equally. The results were then compared with the final diagnosis by histopathology.

Results: The patient age ranged from 15-74 years with a mean of 33.77 +/- 11.91 years. Married patients were 69.3% and the most common presentation was breast lump(s) (88.5%). The mean size of the tumor was 3.47 +/- 1.43 cm in diameter. The FNAC sensitivity was 66.66%, 81.8% specificity, 75.7% accuracy, positive predictive value (PPV) 100% and negative predictive value (NPV) 90%, while in core needle breast biopsy sensitivity was 92.3%, 94.8% specificity, 93.4% accuracy, PPV 100% and NPV 100%. The diagnostic accuracy of CNB was higher than the FNAC, which was statistically significant ($p < 0.05$).

Conclusion: Both procedures are simple, easy, safe, cheap and reliable, but CNB is more accurate than the FNAC.

**16) Title: Mycoplasma Pneumoniae Infection In Yemen:
Incidence, Presentation And Antibiotic
Susceptibility**

Authors: Al-Moyed KA and Al-Shamahy HA.

Date: 2001

Source: East Mediator Health J.2003 Mar; 9(3):279-90

Abstract

To determine the incidence, clinical presentation and antibiotic susceptibility of Mycoplasma Pneumoniae at the main hospitals in Sana'a, we studied 405 patients clinically and radio graphically diagnosed with lower respiratory tract infections aged 10-60 years. M. Pneumoniae was identified by 3 different methods: culture, antigen detection and IgM serology. Antibiotic susceptibility testing was performed for confirmed isolates by macro-broth dilution technique. There were 125 patients (30.9%) with current infection, mostly among younger age groups, with bronchopneumonia the most common underlying clinical condition. All tested isolates were susceptible to all antibiotics in the in vitro arteriogram, with erythromycin the most active. The results indicate the need for different approaches in the diagnosis of M. Pneumoniae infection in Yemen.

17) Title: Prevalence of the Sickle Cell Gene in Yemen: A Pilot Study

Authors: Al-Nood H, Al-Ismael S, and King L, May A.

Date: 2001

Source: Hemoglobin J, 2004; 28(4); 305-15

Abstract

To determine the prevalence of the sickle cell gene (betaS) in Yemen and amongst people from different regions of the country living in the capital, Sana'a City, cord blood samples from 1,500 consenting mothers were collected from hospitals in Sana'a City between July and December 2001. The names and original homes of the parents were recorded. Cation exchange high performance liquid chromatography (HPLC) analysis was used for screening, while isoelectric focusing (IEF) and DNA polymerase chain reaction (PCR) were used to confirm Hb S [$\beta_6(A3)Glu \rightarrow Val$]. Thirty-three samples were found to show Hb FAS, giving an overall likely betaS gene frequency of 0.011. The betaS gene frequency varied with the part of the country from which the parents came. Amongst people from Taiz and Haja in the west, the gene frequency was more than 0.04, but less than 0.004 amongst people from Ibb, adjacent to the governorate (administrative division) of Taiz. Of 66 chromosomes from babies carrying the betaS gene, only 1.5% also carried the -158 (C \rightarrow T) Ggamma-globin gene XmnI site compared with 16.1% of 168 chromosomes from babies without the betaS gene from the same regions. The results of this study show a higher betaS gene frequency in the western coastal part of Yemen than in the central mountainous and eastern desert areas. The incidence of affected homozygous births may therefore reach 20/10,000 in certain areas, although it is much lower than this overall. Limited health resources can best be invested in developing a program of education, screening and health care, initially prioritizing those communities residing in the western areas of Yemen with the highest betaS gene frequency.

18) Title: Determination of Cadmium, Lead, Copper, and Zinc in Yemeni Khat by Anodic Stripping Voltammetry

Author: Matloob MH.

Date: 2002

Source: East mediterr Health J. 2003 Jan-Mar; 9(1-2):28-36

Abstract

Trace element concentrations in khat were investigated as they can disturb trace element levels in the body. Cadmium (Cd), lead (Pb), copper (Cu) and zinc (Zn) levels in khat and 6 leafy vegetables commonly consumed in the Republic of Yemen were determined by differential pulse anodic stripping voltammetry after wet digestion of the organic matter. Khat had significantly higher concentrations of Cu and Zn than did the leafy vegetables, but similar amounts of Cd and Pb. The average daily intake of khat consumers of Cd, Pb, Cu and Zn from khat only was estimated to be 2.0-10.2 microg/day, 23.6-118.0 microg/day, 530-2654 microg/day and 662-3311 microg/day respectively. Although high, these values were within Food and Agriculture Organization/World Health Organization tolerance limits.

19) Title: Renal Failure in Yemen

Author: Al-Rohani M.

Date: 2002

Source: Transplant proc J.2004 Jul-Aug; 36(6):1777-9

Abstract

Renal failure remains a serious cause of mortality in Yemen. Our region has 1.25 million populations and our hospital is the central hospital, which has a nephrology department and performs dialysis for the region. Between January 1998 and December 2002, we admitted 547 patients; including children, with acute renal failure (ARF) and chronic renal failure (CRF). CRF was observed in 400 patients, an incidence of 64 per million per year and a prevalence of 320 per million. ARF occurred in 147 persons with an incidence of 23.5 per million per year and a prevalence of 117.5 patients per million. Of all patients, 72% were adults (age range, 20-60 years) with a male preponderance. As a tropical country, malaria (27.9%), diarrhea (13.6%), and other infectious diseases were the main causes. Next most common were obstructive diseases causing CRF and ARF (26.8% and 12.9%, respectively), mainly urolithiasis, Schistosomiasis, and prostatic enlargement. However the cause of CRF in 57.5% of patients was unknown as most persons presented late with end-stage disease (64.7%), requiring immediate intervention. Other causes, such as hepatorenal syndrome, snake bite, diabetes mellitus, and hypertension, showed low occurrence rates. Patients presented to the hospital mostly in severe uremia and without a clear history of prior medications. The major findings were vomiting, acidosis, and hypertension with serum creatinine values ranging between 2.8-45 mg/dL (mean value, 13.4 mg/dL). Anemia was observed in 80.4% of CRF versus 62.6% of ARF patients. Hypertension prevalence was 65.5% among CRF patients, of whom 25% were in hypertensive crisis, whereas among ARF the prevalence was only 26.5%.

**20) Title: Prevalence of Known Diabetes And Hypertension In
The Republic Of Yemen**

Author: Gun aid AA.

Date: 2001

Source: East Mediterr Health J. 2002 Mar-May; 8(2-3):374-85

Abstract

The present study was undertaken to determine the prevalence of known cases of diabetes and hypertension among adults in Sana'a city. Thus 1080 persons aged 20-85 years were selected for interview using a multistage random sampling technique. The crude prevalence of known diabetes was 6.57% (95% CI: 5.2-8.2) and of known hypertension 13.5% (95% CI: 11.5-15.6). The age-standardized prevalence for the age range 30-64 years was 9.75% (95% CI: 7.55-11.95) for diabetes and 17.1% (95% CI: 15.0-19.2) for hypertension. These results provide an estimate of the prevalence of known diabetes, hypertension and related vascular events in a well-defined urban community.

21) Title: Type II Diabetes Mellitus And Impaired Glucose Tolerance In Yemen: Prevalence, Associated Metabolic Changes and Risk Factors

Authors: Al-Habori M, Al-Mamari M, and Al-Meerri A.

Date: 2003

Source: Diabetes Res Clin Pract J.2004 Sep; 65(3):275-81

Abstract

Objective: To investigate the prevalence of type II Diabetes Mellitus (DM) and impaired glucose tolerance (IGT) and identify the metabolic abnormalities and risk factors associated with these conditions in an urban city of Yemen.

Research Design And Methods: Cross-sectional, population-based study investigating 498 adults (245 males and 253 females) aged 25-65 years. The 1999 modified World Health Organization criteria were adopted for the diagnosis of Diabetes Mellitus and IGT. A standard questionnaire was applied and blood lipids, blood pressure, body mass index (BMI) and waist/hip ratio (WHR) were determined.

Results: The overall prevalence of type II Diabetes Mellitus was 4.6% (7.4% in males and 2% in females). Impaired glucose tolerance (IGT) and impaired fasting glucose (IFG) were found in 2% and 2.2% of the study population. Factors independently related to any abnormality in glucose tolerance, using logistic regression analysis, were sex, hyperlipidaemia, hypertriglyceridaemia, and hypertension; whereas sex and age related to DM. More than 80% of the type II diabetics were over the age of 40, 35% being hyperlipidaemic, 22% being hypertensive and 18% obese. Sixty percent of IGT subjects were hyperlipidaemic and 20% were obese. Approximately 78% of obese individuals (≥ 30 kg/m²) had normal glucose tolerance.

Conclusion: The prevalence of type II DM and its potential increase reflected by the high prevalence of obesity in normal glucose tolerance subjects in the Yemeni population constitutes a major public health problem.

22) Title: The Epidemiology, Pathology, and Management of Goitre in Yemen

Authors: Al-Hureibi KA, Abdulmughni YA, Al-Hureibi MA, and Al-Hureibi YA, Ghafoor MA.

Date: 2001

Source: Ann Saud Med J.2004 Mar –Apr; 24(2):119-23

Abstract

Background: The total goitre rate in Yemen declined by half after the country adopted universal salt iodisation in 1995. We investigated the recent epidemiology, pathology, and management of goitre so as to evaluate changes since the initiation of the salt iodisation programme. We also sought to determine the effect of new diagnostic tools in the preoperative work-up of surgically treated patients.

Methods: Data were collected from the records of 667 patients with goitre seen in Kuwait University Hospital between 1997 and 2001.

Results: Females constituted 92.5 % (n=617) of the series. The mean age of all patients was 35.2±11.58 years (range, 13 to 90 years). Most patients (93%) came from highland areas with an average altitude of 2000 to 2600 meters above sea level. The average duration since patients noticed swelling until the diagnosis was made was about 4 years. Multinodular bilateral swelling was the most common clinical finding (44.9%), while solitary nodules constituted the least common (17.4%). The most common associated symptom was dyspnoea (20.5%). The most common histopathological finding was nodular and colloid goitre (62.8%), while malignancy accounted for 17.7%. Subtotal thyroidectomy was the most frequent procedure, and the most common postoperative complication was hypocalcaemia.

Conclusions: Goitre is a national problem in Yemen. The late presentation, which may be important in malignant transformation of the thyroid gland, makes surgery imperative. The salt iodisation programme has been associated with a decrease in the malignancy rate. Yemen is in great need of experienced cytologists and radiologists to increase the efficacy of fine needle aspiration cytology and ultrasonography in the diagnosis of thyroid lesions. Patients need to be educated about the importance of post-operative follow up.

23) Title: Colorectal Cancer among Yemeni Patients. Characteristics and Trends

Authors: Basaleem HO, Al-Sakkaf KA.

Date: 2001

Source: Saudi Med J. 2004 Aug; 25(8):1002-5

Abstract

Objective: This study aimed to describe the characteristics and trends of colorectal cancer registered in Aden Cancer Registry.

Methods: A retrospective analysis of all registered cancers (1735) was performed at Aden Cancer Center, University of Aden, Aden, Yemen from the years 1997-2001, to describe colorectal cancers with regards to age, sex and residency distribution, subsites and histopathology, and incidence rates.

Results: The results indicate that digestive system cancers are the most common cancers (17.1%); and colorectal cancer (28%) is the most common of these. Developing countries characteristics of this cancer are clear. These include a relatively high proportion of early-onset tumor (19.3% of cases were <40 years), and left sided subsite distribution (49.4% of cases were in the rectum and rectosigmoid junction).

Conclusion: Further analytical studies, to address the community-related risk factors, public education, and screening programs for colorectal cancer are mandatory.

24) Title: Spectrum of Skin Diseases in Yemen (Hajjah and Adjacent Region)

Author: Lal Khatri M.

Date: 2000

Source: Int Dermatol J.2004 Aug; 45(8):580-5

Abstract

Background: Epidemiological study of skin diseases from Yemen is not available, although some data has been published from nearby Arab countries.

Objective: To determine the pattern of skin diseases in Yemen and particularly in Hajjah and nearby regions.

Methods: This is a prospective study and analysis of the consecutive new patients attending the Dermatology Clinic of Saudi Hospital at Hajjah, Yemen, from January 1997 to December 1999. The majority of the patients were from Hajjah and nearby regions but a substantial number of patients came from different distant regions of Yemen. The diagnosis was mainly based on clinical features but supported by laboratory investigations, diagnostic procedures and histopathology when needed.

Results: The total number of new patients was 13,840 with 14,259 diseases, with a male to female ratio of 1:0.81. Ninety-nine percent of the patients were Yemeni nationals. The leading group of diseases was dermatitis and eczematous disorders, followed by infections and infestations (including cutaneous leishmaniasis and mycetoma), and followed by acne and cuneiform disorders.

Conclusion: The spectrum of skin diseases in this analysis revealed that more than 50% of the diseases belonged to dermatitis and eczematous disorders and infectious diseases groups. Socioeconomic and environmental factors of the region are responsible for this. Implementation of public health programs, a proper health education, and inclusion of a suitable training program of dermatology in the undergraduate medical studies of this country may help to prevent and manage these problems rationally.

25) Title: Breast Cancer in South-East Republic Of Yemen

Authors: Abdul Hamid G, Tayeb MS, Bawazir AA.

Date: 2000

Source: East Mediterr Health J, 2001 Nov; 7(6):1012-6

Abstract

A retrospective study of breast cancer was carried out using the treatment registry of Aden Health Office and archives of Al-Gamhoria Teaching Hospital from January 1989 to December 1996 and the records of patients registered at Aden Cancer Centre from January 1997 to December 1998. The data analysed included age, sex, residence, breast affected and type of cancer. There were 227 patients with breast cancer registered between January 1989 and December 1998; 225 were female and 2 were male. Most of the patients (81.5%) had infiltrating ductal carcinoma. About 90% of the patients had lymph node involvement. The age groups most affected were 30-39 years and 40-49 years.

26) Title: Prevalence and Risk Factors for Helicobacter Pylori Infection among Yemeni Dyspeptic Patients

Authors: Gunaid AA, Hassan NA, Murray-Lyon I.

Date: 2000

Source: Saudi Med J.2003 May; 24 (5):512-7

Abstract

Objective: Helicobacter pylori (H. pylori) are one of the world's most common human bacterial infections. Acquisition of H. pylori infection may be associated with chronic gastritis, peptic ulceration and gastric cancer. This study was aimed at investigating the prevalence of H. pylori infection among dyspeptic patients, any correlation with dyspeptic symptoms and endoscopic findings and, any socioeconomic and environmental risk factors.

Methods: The study was conducted between September 1997 and October 1998 in one Endoscopy Unit, Sana'a city, Yemen. A total of 275 consecutive patients with chronic dyspepsia were enrolled in the study. Endoscopic examination was conducted, gastric biopsies were obtained from the antrum and corpus, and H. pylori infection was diagnosed at the time of endoscopy using the rapid urease test.

Results: The prevalence of H. pylori infection in our patients was 82.2% (95% confidence interval (CI) 78 to 87%). Independent variables associated with infection were age >40 years (odds ratio (OR)=2.2; 95% CI: 1.0-4.64; P=0.043); the presence of ≥ 5 children under 14 years per household (OR=6.62; 95% CI: 2.245 to 19.5; P= 0.001); and duodenal ulcer disease (OR=3.7; 95% CI: 1.38 to 10.0; P=0.009).

Conclusion: The prevalence of H. pylori infection in dyspeptic patients in Yemen seems to be high. Advancing age, 5 or more children per household and duodenal ulcer disease were found to be significantly associated with H. pylori infection.

27) Title: The Diagnostic Value of Fine Needle Aspiration Cytology in Thyroid Swellings in a University Hospital, Yemen

Authors: Al-Hureibi KA, Al-Hureibi AA, Abdulmughni YA, Aulqi SM, Salman MS, Al-Zooba EM.

Date: 2002

Source: Saudi Med J.2003 May; 24(5):499-503

Abstract

Objective: To evaluate the correlation between the fine needle aspiration (FNA) cytology and the histopathological findings in cases of the thyroid swellings and to assess the accuracy of cytological examination of thyroid nodules.

Methods: This study was carried out at Kuwait University Hospital, Sana'a, and Yemen. There were 243 thyroid FNAs of which 199 had subsequent excisional histopathological examination in the period 1997 to 2001. All the records of cytology and histology were reviewed. Cases were classified into 6 subsets: benign follicular lesion, thyroiditis, follicular neoplasm, suspicious for papillary carcinoma, malignant, and non-diagnostic aspirate. For statistical analysis, we excluded cases, which had not had subsequent histopathological examination (n=44), and cases with non-diagnostic aspirate (n=3), so only the histology and medical records of 196 cases were reviewed and correlated with the cytology results.

Results: There were 156 (78.4%) cases of benign aspirate, 31 (15.6%) cases of follicular neoplasm, 4 (2%) cases that were suspicious for papillary carcinoma, 4 (2%) cases of papillary carcinoma, and 3 (1.5%) cases of non-diagnostic aspirates. The 196 cases, which underwent cytological and histopathological examinations, were classified as non-neoplastic and neoplastic (including follicular neoplasm and malignancy) according to postoperative histopathology and correlation which, was carried out with preoperative cytology. There were 115 true negatives, 26 true positives, 42 false negatives, and 13 false positives. This gives a sensitivity of 38%, specificity of 89.9%, positive predictive value of 66.7%, negative predictive value of 73.2%, and accuracy of 72%.

Conclusion: The sensitivity of FNA cytology in this study is very low compared to published studies, which had adversely affected the surgical decision making as well as the outcome. We should realise that negative FNA cytology does not exclude malignancy and we have to seriously evaluate the situation and to rethink on how to raise the scale of sensitivity in FNA cytology in the diagnosis of thyroid nodules, and to improve the level of expertise in cytology.

28) Title: Cardiovascular Manifestations in Chronic Renal Failure Patients on Hemodialysis

Authors: Al-Ezzy YA, Al-Barraq AO, Al-Hamaty NA, Haza'a K, Thania SY, Al-Saidy FA.

Date: 2000

Source: Saudi Med J.2003 Jun; 24(6):652-5

Abstract

Objective: To study the characteristics of hemodialized patients included in the study and demonstrate patterns of cardiovascular manifestations in patients as well as the impact of duration of dialysis on these manifestations.

Methods: This is a cross-sectional descriptive study carried out on patients undergoing regular hemodialysis in the Dialysis Unit, Al-Thawra General Hospital, Sana'a, Yemen, between September 2000 and December 2000.

Results: This study was carried out on 50 patients who were on regular hemodialysis; the male to female ratio was 1.3:1 with a mean age of 39.8 +/- 12.6 years and mean dialysis duration of 61.3 +/- 7.57 months. The study revealed the following results: 78% of patients have hypertension with mean systolic blood pressure (BP) of 151 +/- 32 mm Hg and mean diastolic BP of 94 +/- 19 mm Hg, valvular dysfunctions were found in 70%, heart failure in 50%, ischemic changes in 34% and finally 26% of patients have pericardial effusion whereas only one patient (2%) has pericardial rub.

Conclusion: We conclude that cardiovascular manifestations in Al-Thawra General Hospital were found higher than what has been found in other centers worldwide. We recommend reevaluating the practice in this department particularly the efficiency of dialysis and follow up of the patients. Statistically there was no significant correlation between the duration of dialysis and cardiovascular manifestations.

29) Title: Myocardial Disorders in Yemeni Patients with End-Stage Renal Disease

Authors: A-N Munibari, T.M Nasher, and A-K. Abbas

Date: 2003

Source: Documented in research center, ministry of public health, Yemen

Abstract

Cardiovascular disease is the major cause of medical admissions In Al-Thawrah Hospital-Sana'a-Yemen Republic. It continues to be the leading cause of death in the end-stage renal disease (ESRD) population. Accounting for nearly half of the deaths among the dialysis population. The aim of this study is to point out the investigational tools available to the consulting cardiologist to detect both symptomatic cardiovascular diseases in ESRD patients. The methodology of this study involved extensive clinical, biochemical and 2D-Echocardiography Doppler assessment of the cardiac chambers, the valvular dysfunction left ventricular (LV) function and other coincidental Echo-Doppler findings in the hemodialysis population in the nephrology unit. This study involved 50 patients in a predialysis setting .22 females and 28 males, men age was 36.6 years. the mean dialysis duration was 36.23 month , high blood pressure was detected in 12 patients (82%) . most of the patients (24%) , serum creatinine was high (more than 400 mg/d) in 41 patients (82%) , most of the patients were anemic (92%) . left atrial dilatation was found in 21 patients (42%) . concentric left ventricular hypertrophy (LVH) was found in 17 patients (34%) while eccentric LVH was noted in 9 patients (18%) . 2 patients were classified as borderline concentric LVH (4%) , poor left ventricular diastolic function in dysfunction was a prominent feature , 40 patients (80%) and Mitral regurgitation (16% due to organic lesion and 64% were secondary Mitral regurgitation) pericardial effusion was noted in 7 patients(14%) .

30) Title: Prevalence of Helicobacter Pylori Infection among Patients Underwent Upper Gastrointestinal Tract Endoscope in Sana'a Major Hospitals

Authors: H.Z Al-Shami, A.Y Al-Joufy, M. Al-Haimi, and A. Al-Thubhani, and Rajaa

Date: 2002

Source: Docum entation in R.C. Ministry of public health, Yemen

Abstract

Helicobacter pylori infection is considered as the most common infection world wide and by some estimates over 50% of the world population is infected with this organism. This study was carried out from January 2001 to February 2002 in four endoscope unties located in four Sana'a major hospitals. Al-Kuwait University Hospital and Al-Thawra General Hospital. A total of 450 patients aged 11-90 years. 342 males and 108 females were enrolled in this study. On the vases of microbiological examination. Campylobacter like organism CLO-test, histological , and serological the prevalence of H. pylori was 99.6% H. pylori infection was associated significantly with education level , residence, water supply and marital status but not with blood groups , age , sex occupation frequency of endoscope , and household pets , Also H. pylori infection was significantly associated with mild grade of gastric inflammation , peptic ulcer disease (PUD) , gastritis , and duodentis but not associated with some dyspeptic symptoms . The prevalence of H. pylori among patients with PUD, gastric ulcer and duodenal ulcer was 96% while it was in gastritis and duodentis 79.5% and 74.6% respectively. On the basis of direct tests of Giemsa stain the positively of H. pylori detection was 98%. While we combined them the positively of H. pylori detection was 99.6%. Most H. pylori isolated were highly sensitive to the several antibiotics tested, but they were highly resistant to the metronidazole (73.1%) and 7(2.4%) out of 290 H. pylori isolates were multi-drug resistant.

31) Title: Pattern of Acute Myocardial Infarction Management at Coronary Caring Unit in Sana'a City- Yemen (A Pilot Study)

Authors: Al-Motarreb A., Al-Khawlani A. Al-Asri A, AlQudaimi A, Abdu Hamoud Saleh. Al- Wazeer A

Date: 2000

Source: Sana'a University J. for Medical Sciences. Vol. (1), issue (2), Dec.2004

Abstract

In Yemen Acute myocardial infarction has increased sharply in recent years due to change of lifestyle and presence of intensive care units at big cities. No report is available to show the pattern of **AMI** management including the thrombolytic therapy in Yemen. Therefore a multi-centre study in Sana'a was conducted to determine the in-hospital management of **AMI** patients, morbidity and mortality as well as the feasibility of establishing nation-wide and long duration registry in Yemen.

Methods: A prospective study enrolled all patients diagnosed as AMI and admitted to the intensive care units in three general hospitals in Sana'a city during the month of May 2000.

Results: 44 patients were admitted with AMI where 86.4% were male and 13.6% were females with a mean age of 51+ 55 years. Current smoking was high compared to other risk factors being 50% of all age groups. History of previous MI, Diabetes and hypertension was recorded in 6.8%, 6.8%, and 18.2% respectively, Whereas 4.5% were presented with a history of hypercholesterolemia. Thrombolytic therapy with no contraindications to thrombolytic therapy. Prescribing medications at discharge among survivors was 90.5% for aspirin ,72.1% fro nitrates , 67.4% for ACE inhibitors , 37.2% for Beta-blockers, 11.6% for diuretics , 4.7% for calcium channel blockers and none for lipid lowering drugs. CCU's mortality was: cardiac shock (22.7%), heart failure (9.1%) , recurrent ischemia (9.1%), and re-infection (2.3%) .No stroke or major bleeding was recorded and the total in-hospital mortality rate was 9.1%.

Conclusion: Rates of Diabetes, smoking, Hypercholesterolemia and hypertension were high among our patients being 52.3%, 50%, 22.72%, and 18.2% , respectively. Thrombolytic therapy was no appropriate and need to be improved. The rate of use aspirin and nitrates were adequate while that of b-blockers ACEI and lipid lowering drugs need to be improved.

32) Title: The Spectrum and Current Management of Thyroid Diseases in Yemeni Patients

Authors: Al-Selwi J., Issa M., Mugali A. Al-Zabidi A., Shugaldin A., Mofarreh N. and Al-Muqayad M.H. Al-Hadarani A.

Date: 2003

Source: Sana'a University J. for Medical Sciences. Vol. (1), issue (2), Dec.2004

Abstract

Thyroid diseases are common in Yemeni patients especially in women.

The Aim: of this study was to demonstrate the spectrum of thyroid diseases in Yemeni population and assess the current surgical treatment practiced by Yemeni surgeons. The study included 320 patients diagnosed and treated in three hospitals and one radiology clinic. The study showed that multinodular goiter is the commonest cause of thyroid enlargement (48.6%), and papillary carcinoma was the commonest thyroid cancer (64.9%). Multinodular goiter was treated by subtotal thyroidectomy in 69.3% of patients and thyroid carcinoma was treated by total or near total thyroidectomy in 61% of patients.

The Results: of the study indicate that follow up of thyroid patients after surgery is important to assess the efficacy of the current surgical procedures regarding recurrence and other complications. Also, the study suggests that extensive resection at first operation for thyroid carcinoma and nodular goiter minimizes the incidence of recurrent disease and higher mortality and morbidity associated with thyroid surgery.

33) Title: Pattern of Convulsion among Children Attended the Pediatric Emergency Unit at Al-Thawra Hospital, Sana'a-Yemen

Author: Sallam A.K.

Date: 2002

Source: Sana'a University J. for medical science. Vol. (1), issue (2) Dec. 2004

Abstract

Objective: to study the clinical pattern identify the etiological causes of convulsions and their outcome among 131 convulsing children who by history attended the pediatric Unit of Al-Thawra hospital Sana'a, Yemen in the period (1/1/2001- 23/08/) .patients and

Methods: included children presented with history of convulsions by mother /relative with or without fever along with other symptoms e.g. respiratory symptom with fever. Recurrent convulsion with/without fever .CNS symptom (disturbed consciousness .refused feeding) or with convulsion alone.

Results: 77 cases (58.77%) out of 131 were proved by medical staff inside pediatric Emergency Room/unit having convulsions as one of the main complaint. out of these 48 (62.33%) were males and 29 (37.66%) were females with a mea age of 4.1=0.71 year. And the main age group affected was between 4 months and 3 years. It was found that the major causes of these convulsions include. infections (76.57%) permanent brain damage (10.38%) metabolic (7.79%) and others (5.19%) . the consanguinity between parents was seen in 25 cases (32.46%) .

Conclusion: in this study children between 4 months and 3 years were mostly affected by convulsions and the common causes were infections , brain damaging diseases then metabolic disorders .without medical staff witness to convulsion the diagnosis will be difficult.

34) Title: Clinical Outcome Cataract Surgery in Aden Eye Camp 2000

Author: Saleh Salman Ba-Saleh

Date: 2000

Source: Yemeni J. of Medical and health Research Vol (1).No (1) ;May 2002

Abstract

Aim: To assess the clinical visual outcome of cataract surgery performed in Aden Eye camp January 2002.

Methods: The postoperative follow up was performed for 70 patients in a period of one month. The examinations included the measure of visual acuity at Snellen's chart use E type. Anterior segments examination Autorefractometer by AR-600 NIDEK, tension measure by Schiot Z tonometer and funduscopy were performed.

Results: Out of total of 132 operations performed in the Camp, 71 patients were followed up. The visual outcome was based on WHO standard parameters that showed cases with ECCE+IOL; at the 2nd week good outcome were (40%), moderate outcome were (25%), (27.5%) were at borderline, and (7.5%) were with poor results. Slight improvement of the outcome was observed among the same patients under study at the 8th week of follow-up. The patients with ECCE alone showed good outcome at 2nd week follow up (50%), (23.3%) were with moderate outcome, (23.3%) were with borderline and (3.3%) were with poor

Results: There was no significant in visual acuity between the two operative techniques. (2nd week: fisher's exact test = 0.62) (8th week: Fisher's exact test = 0.62) (We compared 616 -6160 in relation to < 6160) Autorefractomert NIDEK-AR-600 measured the refractive defect indicated deviation shift respectively. Postoperative complication on follow up were (22.5%) by ECCE with IOL, while gave better results than those with IOL.

Conclusion: The benefits from this eye camp were clearly minimizing the rate of cataract blindness and increased vision recovery of many patients especially in rural areas and poor. The visual outcome of cataract surgery in camps depends on the achievement of equitable and optimal surgical basis criteria where the patients should be operated to improve the outcome.

35) Title: Simple Closure of Perforated Peptic Ulcer in Patients of Al-Gambouria Teaching Hospital

Authors: Abdulla Baodha and Riyadh Hati

Date: 2000

Source: Yemeni J. of Med, and Health Research Vol. (2), No (1), May 2003

Abstract

Objectives: The majority of the literature on management perforated peptic ulcers comes from the west. However, this is not necessarily appropriate in the developing world; the aim of this retrospective study was to provide data related to patients with perforated peptic ulcers treated in the surgical department of Al-Gambouria Teaching Hospital, because of lack of such reported study.

Methodology: This retrospective study was carried out at Al-Gambouria Teaching Hospital; chart review was conducted for all patients admitted to the surgical department for perforated peptic ulcers during the 4 years period from January, 1997 to December 2000. We analyzed the following variables: age at presentation, sex, time of operation after perforation, type of operation, mortality and pre. And post operative hospitalization period.

Results: During the mentioned 4 years period 58 patients, mean age 38.82 years (ranging from 14 to 75 years), were operated of them 53 males and 5 females with male to female of 10.6 : 1. Most of the patients (47 cases – 81.03%) had perforated duodenal ulcer, whereas the remaining (11 cases – 18.97%) had perforated gastric ulcer, the most affected age group was between 21-45 years (42 patients – 72.41%). There was a delay in operation time-mean interval of 26 hours (ranging from 10-130 hours). In majority of the cases (43 of 47-91.49% perforated duodenal ulcer patients and 8 of 11-72.73% perforated gastric ulcer patients) simple closure of the perforation was used. Post operative mortality was low (1.72%)- one 45 years old male patient admitted within 3 hours since onset of gastric ulcer perforation and underwent partial gastrectomy within 6 hours after perforation.

Conclusion: We conclude that emphasis should be placed on shortening the time to surgery, as well as on prompt pre-operative resuscitation. Simple closure remains the selected treatment in the majority of patients, which is simple and safe procedure, followed by eradication therapy for Helicobacter pylori infection.

36) Title: Pattern of Upper Gastrointestinal Diseases Analysis of 544 Adult Patients Referred For Endoscopy

Author: Salem Ben Silm

Date: 2001

Source: Yemeni J. of Med, and Health Res Vol. (2), No (1), May 2003

Abstract

Upper gastrointestinal endoscopy has become a corner stone in the diagnosis and management of gastrointestinal diseases.

The aim of this study is to presents out analysis of common upper gastrointestinal disorders seen in our gastroenterology unit at Al-Gamhouria Teaching Hospital in Aden. The medical records of patients subjected to endoscopy during the period of May 1998-December 2000 were reviewed. The data were analyzed according to sex, age , symptoms, and Endoscopic findings. Based on the indications, patients were classified into three groups .Epigastric pain and heartburn were the indications in 458(84%),out of 544, patients; haematemesis were in 59(11%), patients and dysphagia in 27(5%) patients. The main endoscopic findings were gastritis (32%), oesophagitis (28%), duodenitis (15%), peptic ulcer (11%), and gastric erosions (9%). Endoscopic findings were normal in the remaining 23 patients, Bleeding sites were identified in 55out of 59 patients, the source of bleeding was oesophageal varices in 25(45%) and duodenal ulcer in 20 (36%) patient. gastric erosions in (15%) and gastric tumors in (4%). Dysphagia was due to peptic oesophagitis in 12 patient sand 9 cases due to oesophagus tumor. In conclusion, our results differ from other reports in which oesophageal varices are the second cause of upper digestive bleeding, whereas peptic ulcers are the first cause. The procedure was safe and well tolerated and no complications related to endoscopy were encountered in any patients.

37) Title: Pattern of Gastrointestinal Tract Malignancy at Al-Thawra Hospital, Sana'a, Yemen

Authors: A. K. Salem , A. A. Awn , Y. A. Abdulrab, A. M. Abdulrab , Y. A-K Mohammed

Date: 2001

Source: Sana'a University J. for medical science. Vol. (1), issue (1) Jan-June 2004

Abstract

This study is based on data collected from 388 patients registered with primary cancer of the gastrointestinal tract and its accessory glands. The diagnosis was confirmed histopathologically in all patients, these patients were seen at Al-Thawra Teaching Hospital in the period 1998-2001. The relative frequency and rank of order were determined for each type of GIT cancer. The male/female ratio was 1.3:1 the age of the patients ranged between 25-65 years with a mean of 45 years. The peak occurrence was in the age group of 46-55 years. Abdominal pain was reported in all patients. The other most common presenting symptoms were weight loss weakness vomiting and abdominal distension reported in 79.9%, 77.3%, 74.5% and 72.2%, respectively. Hepatocellular carcinoma was the most common GIT cancer, ranked the first and diagnosed in 150 (38.7%) patients. Colorectal carcinoma ranked the second, followed by esophagus and small intestine cancers were less frequent. Recorded in 7.2% and 2.6% in that order. No gallbladder cancer or premalignant conditions were registered. The results of this study were compared with findings mentioned in the literature. Some differences in the pattern of GIT cancers were encountered. GIT cancers were often discovered in the late stage, when the treatment offers little chance of cure. The study stresses the importance of prevention, screening and early detection for GIT malignancy. Furthermore eradication of *H. pylori* and vaccination against HBV preferably integrated into expanded program of immunization is strongly recommended.

38) Title: The Value of Ultrasound Guided Needle Aspiration for the Treatment of Abdominal Abscesses

Authors: Al-Absi M. A., Al-Wadan A. H., Qais A. M., Ghafour M. A.

Date: 2003

Source: Sana'a University J. for medical science. Vol. (1), issue (2) Dec. 2004

Abstract

Objective: This retrospective study was done to evaluate the efficacy and safety of ultrasound (US) guided needle aspiration with adjuvant antibiotics for the treatment of intra-abdominal abscesses.

Materials and Methods: over eight years, fifty one patients with intra-abdominal abscesses were treated with US guided percutaneous needle aspiration and lavage technique using number 18 gauge needles. Needle reposition and repeated aspiration in a single session were performed for the treatment of multi-located abscesses. Adjuvant systemic antibiotics were given for all patients.

Results: forty seven out of fifty one patients with intra-abdominal abscesses. Including two with multi-located abscesses, were successfully treated with US guided needle aspiration. Only one complication was encountered, severe abdominal pain and reactive syncope that was treated conservatively. Two patients did not respond to aspiration, and were referred for surgical drainage. Two patients were lost form the follow- up.

Conclusion: our results show that Ultrasound guided needle aspiration combined with adjuvant antibiotic therapy is safe, efficient and cost-effective method for the treatment of intra-abdominal abscesses. It avoids complications of surgery and anesthesia and should be the treatment of choice for these abscesses.

39) Title: Cardiac Disease in End-Stage Renal Yemni Patients: an Echocardiographic Approach

Authors: Munibari A-N, Abbas A-K

Date: 2003

Source: Sana'a University J. for medical science. Vol. (1), issue (2) Dec. 2004

Abstract

Cardiovascular disease is the major cause of medical admissions in Al-Thawrah teaching hospital- Sana'a – Yemen. It continues to be the leading cause of death in the end-stage renal disease (ESRD) population. Accounting for nearly half of the deaths among the dialysis population. The aim of this study is to point out the investigational tools available to the consulting cardiologist to detect both symptomatic and asymptomatic cardiovascular diseases in consulting cardiologist to detect both symptomatic cardiovascular diseases in ESRD patients. The methodology of this study involved extensive clinical, biochemical and 2D-Echocardiography Doppler assessment of the cardiac chambers, the valvular dysfunction, Left ventricular (LV) function and other coincidental Echo-Doppler findings in the Hemodialysis population in the nephrology unit. This study involved 50 patients in a predialysis setting 22 females (44%) and 28 male (56%), mean age was 34.6 yr, the mean dialysis duration was 36.23 month, high blood pressure was detected in 12 patients (24%) , serum creatinine was high (more than 400 mg/dl) in 41 patients (82%) , most of the patients were anemic (92%) ,left atrial dilatation was found in 21 patients (42%) , concentric left ventricular hypertrophy (LVH) was found in 17 patients (38%) while eccentric LVH was noted in , patients (18%) ,2 patients were classified as borderline concentric LVH (4%) poor left ventricular diastolic function in 15 patients (30%) , . impaired ejection fraction was noted in 13 patients (26%) valvular dysfunction was prominent feature , 40 patients (80%) had Mitral regurgitation (16% due to organic lesion and 64% were secondary Mitral regurgitation . Pericardial effusion was noted in 7 patients (14%). A critical issue relating to the use of cardiovascular screening and intervention in the gentle ESRD population remain

40) Title: Eye Injuries among Children in Sana'a, Yemen

Authors: Mahfouth A Bamasgnys Bamashmus and Ahmed Al-Shabooti

Date: 2000

Source: Science conference, Sana'a - (11-13) October 2001

Abstract

The aim of the study is to study serious eye injuries among children epidemiologically and to inform the planning of eye health care in Yemen for preventing such injuries. Data was reviewed of 288 children under the age of 16 years who sustained serious eye injuries and 1997 and December 1999. Children (<_6years) constituted 61.1% of the total cases admitted and operated of for the same period of time. Peak age was in the 6-10 years old 65.4% of the injuries patients were males and 34.6% were females. The commonest causes of injuries in decreasing order were road traffic accident, fight, stone and sharp objects. Health education and safety strategies should now consider targeting the road traffic accidents home and gunfire in Yemen for the prevention of serious eye injuries in children. The major causes of injuries were unnecessary risks and plans for prevention should be implemented.

41) Title: Nutritional Anemia in Children in Al-Wahda Teaching Hospital

Authors: Nagat A .R Hakimy, Haifa Mohamed Mukbel.

Date: 2005

Source: The 13th congress of the Union of the Arab Pediatric Societies

Abstract

Introduction: Anemia is reduction of hemoglobin concentration in peripheral blood below the lower normal range for age, sex and environment. Nutritional anemia refers to a condition in which the hemoglobin level is lower than the normal range as a result of a deficiency of one or more essential nutrients usually iron (less frequent folic acid and vitamin B12). Iron deficiency anemia is the most common nutritional deficiency in children as is world wide in distribution. The incidence of iron deficiency anemia is high school children and pre adolescents.

Objective: To determine the frequency of types of anemia in children of both sexes.

Patients and Method: We selected 60 anemic children from Alwahda Teaching hospital that were 28 males and 32 females. They were distributed into three groups < 5 years, 5-< 10 years and 10> 15 years. All patients were submitted to the following investigation (Hemoglobin level, red blood cell count packed cell volume and red blood cell indices mentzer index (MCV/RBC) blood film and serum iron).

Results: The hemoglobin level, RBC count and PCV were reduced in all the three groups. The RBC indices were reduced in all groups. The Mentzer index in all groups was more than 14. The blood film revealed a predominance of RBC with hypochromic microcytic in all the groups. Serum iron was significantly lower in all groups.

Conclusion: All the studied children had iron deficiency anemia,

Recommendation: We recommend routinely the estimation of serum ferritin in anemic children and seek for information about children feeding regime and mother's nutrition and bleeding disorders.

42) Title: Prevalence of Visual Deficits and Ocular Diseases in Preschool children, Khor Maksar Kindergartens

Authors: Raga Abdo A. Salem, Saleh Salman Ba-Saleh, Ibtihal Aidaroos Zain.

Date: 2000

Source: The 13th congress of the Union of the Arab Pediatric Societies.

Abstract

Aims: To estimate the prevalence of visual deficits and eye diseases in pre-school Children in Khor-Maksar Directorate in Aden, by ophthalmic screening of those children, and try to prevent and /or treat the eye diseases that lead to ocular disability.

Method: During the first semester of the year 2000 .a screening for eye diseases by researchers was carried out for the last class 206 pupils at Khor-Maksar-Kindergarten in Aden. The pre-scolars underwent a full eye examination including; the E-Snellen's visual acuity at 6 meters, anterior segment examination with lid eversion by use of a torch and a magnified loupe, cover-uncover test, motility of extrinsic muscles and direct ophthalmoscope. Further examinations were performed for those children with visual acuity less than 6/6 or with pathological findings, in which a slit Lamp examination, Autorefractometer using Nidek –AR 600 under Cyclopent eye drops, eye tension under general anesthesia and dilated pupil funduscopy for those cases to reach a diagnosis.

Results: Mostly children aged 5 and 6 years (56.3% & 23% respectively). The males were 124 pupils (60.2%) and females were 82 pupils(39.8%). Normal visual acuity (6/6) was found in 89.3% of children. Visual deficits were in 9.7%, mainly (5.3%) was a mild defect from 6/9 – 6/12, moderate visual affection was in 2.4% from 6/18 – 6/24 and severe visual impairment was in 1.94%, from 6/36 or less. 4 pupils with bilateral poor eyesight less than 6/36 were due to congenital glaucoma in 0.97% and hereditary corneal dystrophy in 0.97%. Ambylopia and squint were seen only in 1.94%. Different eye diseases, which do not affect vision were seen in 18.4%; the vernal conjunctivitis in 8.7%, lid diseases and nevus were equally in 2.9%, and trachoma, bacterial conjunctivitis, trauma were equally seen in 0.97%.

Conclusion & Recommendations: Preschool eye screening is a very important measure in preventing and/ or treating serious sequel of visual defects and ocular diseases in early ages of children, even though we did not detect a significant number of cases of amblyopia , trachoma, and vitamin A deficiency in this study which may be due to low hereditary and/ or the urban life condition in this directorate, but a further survey including a large number of pre-school children is required before a definite recommendation can be made that these diseases have less prevalence. The establishment of innovatory multidisciplinary actions by a public health care program in Yemen to train qualified staff, provide better resources and screen the preschool children at Kindergarten by age of 3-5 years at local and national level, especially the examining of those families with poor socioeconomic situation, will help to prevent and treat the eye diseases at this early age and increase the quality of the ophthalmic health service.

**43) Title: Malignant Lymphomas in Pediatric Age Groups
Clinico Pathological Study in Yemeni Patients**

Author: Mazen Abood Bin Thabit

Date: 2002

Source: The 13th congress of the Union of the Arab Pediatric Societies.

Abstract

Introduction: Lymphoma is a malignant tumors of, specifically of lymphocyte and their precursors, T,B and Null phenotype. Traditionally malignant lymphomas divided into Hodgkin's and Non Hodgkin's lymphoma (NHLs). Most of malignant lymphoma of childhood is of high grade, large cell 20%, lymphoblastic 40% and Burkett's lymphoma 30% of all NHLs.

Purpose: To determine the pattern of malignant lymphomas in childhood age groups and its clinical presentation at the time of diagnosis.

Methodology: Ninety one patients with histopathologically proved Malignant lymphoma was selected from canrg 4 data base from 1997 – 2002 and classified into different variable and analyzed using SPSS program.

Results: It has been found malignant lymphoma was more common in male 62 (68.14%) than female 29 (31.86%) with 2:1 ratio, and most of the cases was from Aden governorate 43 (47.25%). Most of the cases were NHLs 44 (48.35%) and most of them presented with cerviclymphadenopathy.

44) Title: The Effect of Sickle Cell Gene on Patients with Malaria

Authors: Anisa Abood, Anisa Sakaf

Date: 2005

Source: The 13th congress of the Union of the Arab Pediatric Societies

Abstract

Introduction: The progress in malaria researches during the last decade still fascinating. Recent studies showed that heterozygote hemoglobin AS provides significant protection against all causes of mortality especially severe malarial anemia and high density parasitaemia.

Objective: To find out the alteration of hematological and morphological changes of Hematopoiesis in heterozygote children with sickle cell trait. Suffering from malaria in comparison with children with normal hemoglobin AA.

Subjects and Methods: 47 patients with malaria from Toor Albaha were included in this study. 33 children were possessing normal hemoglobin, Two were sickle cell anemia and 12 sickle cell trait, Hemoglobin concentration, white blood cells count, platelets count and parasitaemia level, as well as bone marrow examination, iron status indicators and hemoglobin electrophoresis in alkine phosphate buffer pH 8.6 were performed as described by Dacie and Lewis 1986. Statistical analysis for means, standard deviation and Chi square by using Epidat.

Results: 47 patients with malaria were evaluated, 33 of them were having normal hemoglobin, 2 were suffering from sickle cell anemia and 12 were sickle cell trait. Hematological parameters including hemoglobin, white blood cell count, platelets count and ESR, as well as serum ferritin, TIBC and transferrin saturation in patients with sickle cell traits showed that there was a statistical significant deference $P < 0.05$ in comparison with patients possessing normal hemoglobin. Parasitaemia was less in sickle cell trait 1.7:f :0.5 with P value < 0.05 . Dyserythropoiesis was found to be decreased in comparison with normal AA hemoglobin patients with malaria with 21.8: f: 6.4 and sickle cell trait 16.8: f: 6.0 with a significant statistical difference P Value was < 0.005 ,

Conclusion: We concluded from this study that sickle trait children when affected with malaria they were protected. They had a higher hemoglobin, white blood cells and platelet count levels. Hematopoiesis was less affected in these children,

45) Title: Distribution of Sickle Cell Hemoglobinopathy among Yemeni Sickler's at Sadah Governorate

Authors: Ahmed Al-Khorasani, Ali Al-Meir, Al-Griani, Fuad Mustafa

Date: 2005

Source: The 13th congress of the Union of the Arab Pediatric Societ

Abstract

Background: sickle cell disease (SCD) is caused by various of the beta-globin gene called sickle hemoglobin (HbS), the sickle cell disease inherited autosomal recessively either two copies of Hbs, or one copy of Hbs plus another beta-globin variant are required for disease expression. The clinical expression of the disease is variable and depends on fetal hemoglobin expression and on the interaction of hemoglobin α -s with hemoglobin-c, or b-thalassemia allele.

Objectives: an attempt to identify the genotypes of SCD hemoglobin among Yemeni sicklers at Sadah governorate, as a step for complete description of Yemeni SCD gene. Also to help in follow up of sicklers, carry out population genetic survey programs. To detect carriers and to help in marriage. genetic counseling.

Material and Method: The medical record of 118 patients with SCD seen at our center in AL-salam hospital at Sadah governorate. Our review includes the history, clinical manifestation and laboratory data of SCD. Hemoglobin genotypes were established by standard hematological methods of solubility tests and hemoglobin electrophoresis.

Results: This study includes 118 patients of SCD, the male 66 (55.93%) and female 52 (44.07%), the hemoglobin genotypes of SCD were 49 (41.53%) as sickle cell anemia (s), 43 (36.44%) as sickle cell trait (SA), 19 (16.10%), as sickle cell b+- Thalassemia (SB+-Thai) and 7 (5.93%), as sickle cell BO-Thalassemia (SBO-Thal) the positivity of sickling test was observed in 87.92% of SCD and highly significant in sickle cell anemia genotype ($p < 0.001$).

Conclusion: The analysis of our data has shovril the absence of HbC and other rare hemoglobin that is associated, or interacts with sickle cell gene. The profile hemoglobin genotypes distribution of SCD is homozygous type (HbSA), sickle cell trait (HbSA), sickle cell B-Thalassemia (SB+-Thal), and sickle cell BO-Thalassemia (SBO- Thal), The study also reveals the importance of sickling test in diagnosis of most SCD genotype in rural area.

46) Title: Gastrointestinal Peptides in Infantile Colic

Authors: Nagat Abdulwahed M. and Noman

Date: 2005

Source: The 13th congress of the Union of the Arab Pediatric Societies

Abstract

Objective: To evaluate the effect of changes in intestinal motor activity in infants, using the levels of serum gastrin, gastric inhibitory peptide (GIP), Neurotensin (NT) and peptide YY as markers in pathogenesis of infantile colic in full term breast – fed infants.

Methods: Prospective study on 90 infants aged 3-12 weeks (64 complaining of infantile colic and 26 normal healthy infants served as control group) had their serum Gastrin, GIP, NT and PYY levels assayed. Patients and control group subdivided according to age to 3 groups (3-6 weeks, >6-9 weeks and >9-12 weeks).

Result: Colicky infants had significantly lower plasma NT levels than control group. Unlike NT, PYY level was significantly higher in colicky infants than healthy ones, while there were insignificant statistical differences between the two studied groups regarding the Gastrin and GIP levels. The pattern of most gastrointestinal peptides among non-colicky infants showed non-significant fluctuation among the different age groups while there was an inverse relation between the level of GIP and age of colicky infants. In addition, PYY level decline with age in colicky infants.

Conclusion: There was a relation between gastrointestinal peptides and incidence of infantile colic. Significant change in the levels of NT and PYY were found, where the lower in NT level and the higher level of PYY in colicky infants may be an expression of an immature gut which may responsible for decreased peristalsis which may contribute to gut motility disturbances. The overall pattern of gastrointestinal peptides in colicky infants differ from that of healthy ones, these change may indicate disturbed production of gastrointestinal peptides which may lead to disturbed gastric and intestinal motility. Absence of significant difference regarding GIP and Gastric hormones levels among studied groups may suggest that there is no causal relationship between these two hormones and infantile colic.

47) Title: Clinical Pattern and Management of Childhood Type 1 Diabetes Mellitus

Authors: Nuha Abdul-Malik Aghbari, Iman Ali Be-Saddik

Date: 2003

Source: The 13th congress of the Union of the Arab Pediatric Societies

Abstract

Type I Diabetes Mellitus is the most common endocrine- metabolic disorder of childhood and adolescence and a major public health problem because of its long-term complications.

Objectives: To assess the magnitude of the pattern of diabetes mellitus , epidemiological factors and its management in children attending to AL-Wahda Teaching Hospital and Aden Hospital.

Patients and Methods: This was a descriptive prospective study conducted on all children holding the diagnosis of Diabetes Mellitus who were recruited from the inpatients and outpatients of both AL-Wahda Teaching Hospital and Aden Hospital in Aden Governorate; during the period 1st April 2002 to 31st March 2003.

Results: The study population included 53 patients where newly diagnosed type I diabetes was comprised 22 patients (41.5%) their age range from 16 months to 14 years. The peak age at onset was 10-14 years (52.8%) while the male to female ratio was (1.1:1). Majority of diabetic children were diagnosed during winter (67.9%). Family history of diabetes was found in 27 patients (50.9%). Normal birth weights was recorded in high numbers among 49. The evidence of infections revealed Malaria in (22.6%), Rubella (22.6%) and Mumps (18.9%) as probable major precipitating factors. Breast feeding for more than 3 months was practiced in 49 children (92.4%) A major group of our patients (92.2%) were on twice daily injections while 4 patients (7.8%) were on single daily injections. All patients received human insulin; (78.4%) who were on short and intermediate acting insulin while (17.7%) on mixed insulin and 2 cases (3.9%) on mixed and short acting insulin. The majority of our patients (66.7%) were on an insulin dose less than 1 unit /kg and the mean insulin dose was 0.79 unit/ kg/ day. The major complication was DKA in 15 patients (28.3%) followed by infections in 13 patients (24.5%) 2 patients (3.9%) unfortunately died .

Conclusion and Recommendations: Diabetes mellitus is a major health problem among children in our country. Children with diabetes mellitus should be in the care of multidisciplinary specialized pediatric team early continuous health education of patient and family on disease and its management, Great efforts are requested to shift from conventional insulin therapy to intensity regimen especially for teenagers to prevent long term complications early continuous health education of patient and family on disease and its management. We recommended the provision of best health services which should be available and afford able to every diabetic child.

48) Title: Echocardiography Spectrum of Congenital Heart Diseases among Children of Aden City

Authors: Hussein Kassem Saleh

Date: 2003

Source: The 13th congress of the Union of the Arab Pediatric Societies

Abstract

Yemen occupies the second place of fertility and high birth rate in the world, the majority of births take place at home, the frequency distribution of the disease is unknown, it is expected that the burden of the congenital heart disease is likely to be enormous.

Objective: To assess the age , sex distribution and relative frequency of congenital heart disease among children of Aden city and surrounding.

Setting: This study was conducted in the Echocardiography Department of a sole referral care hospital (Algmhouria Teaching Hospital) for Aden city and surrounded governorate from January 1999 to November 2003.

Design: A retrospective analysis focused on findings of children with congenital heart disease proven by echocardiography.

Patients and Methods: Three hundred and ninety-six children up to fifteen years of age with clinical suspicion of congenital heart disease were conformed by standard 2D and Doppler echocardiography.

Results: Out of 1206 referred children for echocardiography scanning, 607 (50.3%) had heart disease. Congenital heart disease was detected in 396 {190 (48%) male and 206 (52%) female} which represented 32.8% of total scanned cases and 65.2% of affected patients by heart disease. Non cyanotic defects were the most frequent finding; Ventricular septal defect 92 (23.2%), patent ductus arteriosus 66 (16.7%), Atrial septal defect 55 (13.9%) and Isolated pulmonary stenosis 39 (9.8%) or associated to other defect 32 (8.1%). Fallot tetralogy was the most cyanotic defect 32 (8.1%) and others 80 (20.2%). Atrial septal defect, aortic stenosis and tricuspid atresia were more frequent in male while patent ductus arteriosus and endocrinal cushion defect predominate in female. The majority (56%) was over one year of age, 34.6 infants under one year and only 9.3% were neonates. Complex cyanotic defects were diagnosed in 69% of neonates, Fallot tetra logy and non cyanotic defects were detects mainly in the first five years of age.

Conclusion: congenital heart disease is the first cardiac burden for Southern Yemeni children. Defect detection is not made in the majority of born. Generally Neonates and infants under one year with heart defect referred for echocardiography are in serious conditions. The frequency distribution of the disease is similar that documented in the literature. Hospital delivery, fetal echocardiography and early postnatal detection of heart defect are recommended.

49) Title: Acute Lower Respiratory Infection among Children in Aden

Authors: Khaled M. Al-Giffri, Intisar S. A. Al-Hag

Date: 2003

Source: The 13th congress of the Union of the Arab Pediatric Societies

Abstract

Background: Acute lower respiratory tract infections (ALRTI) constitute a very important cause of morbidity and mortality among infants and children worldwide.

Objectives: The main aim is to make a panoramic overview of ALRTI in under fives in Aden

Methods: This is a descriptive observational study including 284 children with ALRTI, admitted to Al-Wahda Hospital Aden, from September 2002 through February 2003

Results and conclusions: Patients comprised 18.5% of total admissions in the study-period, thus indicating that ALRTI is a common cause of admission . Males were 177 (60.6%) with a male : female ratio of 1.5:1 (significant,<0.05). Bronchopneumonia was the most common ALRTI (significant, p<0.05). The age differences type of ALRTI were found to be significant (p<0.05). The major complications were acute gastroenteritis (AGE) among 51 patients (18%), seizures among 18 (6%) and cardiac failure (CCF) among 14 patients (5%).AGE and CCF significantly attacked those <12 months of age (p<0.05). The case-fatality rate (CFR) was 3.5% which seems to be lower than expected either because of a better manipulation of cases or a biased non-representative sample. Death among females was significant (<p0.05), and those <12 months died almost in a significant proportion compared with those ≥12 months (p<0.05).

Recommendations:

- 1) To investigate the impact of ALRTI in a multi-center study including state and private hospitals and clinics throughout the country.
- 2) To improve the diagnostic tests of ALRTI.
- 3) Health education and promotion by:
 - (i) wide-spread vaccination coverage .
 - (ii) Breast-feeding and better nutrition to be made available to the great majority of the population which is below the poverty level
 - (iii)Sanitation, better houses, water, electricity to the whole community.

50) Title: Epilepsy in Children : The Use of Syndromic Diagnosis In Clinical Practice at Al Wehda Teaching Hospital

Authors: Amina Hussein Harharah, Shamim Ali Sulaiman

Date: 2005

Source: The 13th congress of the Union of the Arab Pediatric Societies

Abstract

Epilepsy is the most common chronic neurological disease in children and adolescent. In our country (Yemen), it is constituting a significant proportion among diseases affecting children.

Objectives: To give an overview about the disease and to introduce ILAE classification 1989 as a new trend in our clinical practice.

Patients and Method: A prospective study was conducted at Al-wehda teaching hospital/ Aden, during the period Jan. 2003 – Oct. 2005 including all children attended with epilepsy, for which syndromic classification for diagnosis was applied on clinical and EEG findings.

Results: Two hundred fifty patients with epilepsy were enrolled in this study. Male were affected more frequently than female (59.6% versus 40.4%). Localization related syndromes were seen in 52.8%, generalized syndromes in 43.2% and 4% of patients had undetermined syndromes. Syndromic diagnosis was definite in 88 (35.2%) and partial in 152 (60.8%). In localization related, Benign rolandic epilepsy was diagnosed in 20 patient, moreover it was symptomatic and cryptogenic and cryptogenic in 50 and 61 patients respectively. In the generalized group the following syndromes were diagnosed: Benign myoclonic epilepsy of Infancy, childhood absence epilepsy, juvenile myoclonic epilepsy, west and Lennox Gastaut syndromes in 13.3.2.4 and 2 patients respectively. The etiology was idiopathic in 144 (45.6%), symptomatic and/ or cryptogenic in 136 (54.4%) of patients. The age of onset in the vast majority of patients 77.2% was <5 year, being under 1 year in 52.9% of symptomatic group (partial and generalized). EEG was performed for 212 (84.4%) of patients, epileptiform discharges were recognized were recognized in 54%. Response to treatment was complete in 110 (44%) of patients, 45 (40.9%) of them had generalized idiopathic epilepsy, which is characterized by high rate of remission.

Conclusion and recommendations: Epilepsy was diagnosed in a significant proportion of patients, being common under 5 year of age as it is seen in this study and previous 4 studies about epilepsy in our hospital. Adequate registrations and the use of syndromic diagnosis must be encouraged in order to know the real incidence of the disease and to improve management and classification of the disorder.

51) Title: Epilepsy in Cerebral Palsy

Author: Asia Mulhi

Date: 2003

Source: The 13th congress of the Union of the Arab Pediatric Societies

Abstract

Objective: To study the nature, associated factors, seizure outcome in children with cerebral palsy

Design: prospective hospital, clinic-based case control study.

Setting: Alwahda Teaching Hospital in Aden.

Method: Fifty children with cerebral palsy and epilepsy were evaluated between Dec.1999-Dec. 2003. A control group of 50 epileptic children with normal neurodevelopment status were assessed during the same period.

Results: Epilepsy most commonly was identified in patients with spastic quadriplegia and those with mental retardation. When we compared with the control group. Children with cerebral palsy has a higher incidence of epilepsy with onset within the first years of age (56% vs. 12%), history of neonatal seizures (36% vs. 4%), status epilepticus (30%vs. 4%), polytherapy (68% vs. 30%), and discontinuation of antiepileptic drugs (22% vs. 70%). Factors associated with seizure free period of two years or more in epileptic children with cerebral palsy were normal intelligence, single seizure type, monotherapy, and spastic diplegia.

52) Title: Fulguration of Posterior Urethral Valves in Yemeni Boys: 5 Years Experience

Author: A. A. Karama Musa

Date: 2000

Source: The 13th congress of the Union of the Arab Pediatric Societies

Abstract

Background: Posterior urethral valves (PUV) are the most common cause of mechanical infravesical obstructive malformation. Our objective is to explore the symptoms, radiological findings and outcome after valve fulguration.

Patients and method: The medical records of 39 boys (mean age 3.7 years, range 6 months and 11 years) diagnosed with PUV and treated in our clinic with valve fulguration since Jan. 2000 were retrospectively reviewed. Findings of a physical examination, laboratory investigations (urine analysis, urine culture and se creatinine levels), ultrasonography, intravenous urography and voiding cystourethrography (VCUG) were noted. After valve fulguration, a follow-up for 33 patients, but 6 patients were from far distances and they could not come for regular follow-up.

Results: The most common presenting symptom was voiding dysfunction; 24(61.5%) presented with nocturnal enuresis, 21 (53.8%) with urinary frequency and 17 (43.6%) with history of urinary tract infection. Ultrasonography and intravenous urography showed hydronephrosis in 27 (69.2%) and postvoid residual volume (PVR) in 32 (82.1%). On VCUG, 28(71.8%) patients had evidence of PUV, 9 (23.1%) with vesicoureteral reflux. After fulguration of the valves most patients improved; 15 of 21 (71.4%) had resolution of urinary frequency and 11 of 24 (45.8%) of nocturnal enuresis. Off 33 patients followed up, 21 (63.6%) had some reduction of hydronephrosis.

Conclusion: PUV should be considered in boys presenting with voiding dysfunction. After valve fulguration most patients improve dramatically, but they should be followed up much beyond the immediate electrosurgical treatment period as complications could arise on the long term.

Keywords: posterior urethral valves, Yemeni boys, Fulguration,

53) Title: Abdominal Wall Hernias in Pediatric Patients' Admitted to Al Jamhouria Teaching Hospital

Authors: Ali Mohammed Al-Nawi, Ali Hidan, Tareq Mazida

Date: 2005

Source: The 13th congress of the Union of the Arab Pediatric Societies

Abstract

Introduction: This is retrospective and descriptive study for pediatric patients with abdominal wall hernias admitted to Al Gamhouria Teaching Hospital from 1st January 2002 through 31st December 2005.

Objectives: To evaluate the different aspects of hernias in those pediatric patients' including the age, sex distribution as well as the methods of presentations and management.

Methodology: The medical records of all patients who had abdominal hernias during that period were studied retrospectively. Over six years 223 patients age ranged from one day up to 14 years old.

Results: The highest incidence was in age group of 3-6 years 22% and infants 21.5% and lowest in neonates 7.6%.

Male most frequently affected than females with male: female ratio of 4:1 and the right inguinal hernia form the majority 53.4% followed by left inguinal hernia 28.3%, umbilical hernia 7.6% and one case as incisional hernia 0.4%.

Preoperative diagnosis in 77.6% of patients was simple reducible hernias and admitted as elective cases while 22.4% of cases admitted as emergency.

Congenital hydrocele associated with inguinal hernias were found in about 5.4% of all male cases and undescended testis in 2.3% of all admitted male cases.

Surgical treatment employed by herniotomy for 83% and herniotomy with herniorrhaphy for 17%, with recurrence rate of about 1.3%. The most common post operative complications was scrotal swellings in 9.7%, followed by chest infection in 4% and wound sepsis in 3.6%.

Conclusions:

- Males affected more than females (4:1).
- Highest incidence in infancy and early children. Emergency presentation was most frequent in males.
- Recurrence rate 1.3% after surgical treatment.

54) Title: Characteristics of Myocardial Infarction in Yemeni Patients

Supervisors: Professor Ahamd al-Hadad, Khaled Al-Aghbary

Authors: Nora Ahmad Humood Al-Awadhy, Afrah Abdullah Murtadha, Ahlam Abdo Mohammed Swileh, Khadeejah Mohammed Al-Arasi, Taghreed Abdu Albiky Al-Abse, Afaf Ahmed Qasem Hamza, Huda Mustafa Abdullah al-Hamzi, and Rania Abdullah Ahmed Ali Al-Ghithy

Date: 2005

Source: The 17th Scientific Conference for Graduation Researches Sana'a University, April 2006

Abstract

Myocardial Infarction is the irreversible necrosis of heart muscle secondary to prolonged ischemia. Myocardial Infarction is a leading cause of mortality among adults during the 20th century in most industrialized countries. Few studies have investigated the relative importance of major coronary risk factors in the two sexes within the same study population. Myocardial Infarction cause about 12 million death through the World each year. The study was non interventional analytic cross sectional, prospective study for 132 cases of myocardial infarction. Most of myocardial infarction patients (43.9%) are presented to Al-Thwara Hospital. Myocardial Infarction is more evident in male and most of patients are older than 50 years. Atherosclerosis is the main cause of MI. Most of myocardial infarction admitted cases are tobacco smokers and most of them are active smokers. Most of myocardial infarction admitted cases are Khat chewers & most of dead cases were weekly Khat chewers.

55) Title: Urolithiasis Recurrence Prevention and Methods of Removal among Patients in Sana'a Hospitals

Supervisors: Mohammad Habib Al-Naib and Dr. Tawfeeq Al-Abadani

Authors: Wail Abdo Sa'id Al-Shera'I , Nabeel Salem a. Al-Yafa'I, Adnan Hashed Taleb, Mohammed Abdullah Saleh, Amir Abdul-Aziz al-Shehari, Fayzah Abduljalil Al-Shamiri, Salwa Mohammed Al-Hamdi, Nada Abdul-Wase'e Al-Aghbari, Yasmeen Ali Al-Azzani ,and Mohammed Yaser leesa

Date: 2005

Source: The 17th scientific Conference for Graduation Researches, Sana'a University, April 2006

Abstract

Objectives: To determine recurrence, prevention and Methods of removal of urinary calculi among Yemeni patients in Sana'a hospitals.

Subject Methods: Descriptive study for "250"

Results: Recurrence of urinary stones was found in 49.6% of patients. Recurrence of stones in males five times more than females and the age between "13-50" years old the most affected age.

Factors that affect on recurrence were family history, urinary tract infections, male sex, amount of water drinking, day, Kat chewing.

Recurrence of stones decreased by prevention.

Methods of removal ESWL in 51.6%, endoscope 34.4% and 14% by open surgery.

56) Title: Factors Affecting Helicobacter Pylori Prevalence in Sana'a City

Supervisor: Ahmad Al-Hadad

Authors: Abdurabah Ja' ar, Abdo Farhan farhan,Ahlam Abdylmalk Abdrultwab, Ahlam Abdullah Hajar, Ahmed Nageeb Shokry, Ali Abdulkarim Sheiban , Dhekra Hassan Salama'A, Khadijah M. Al -Dahwa , Mohammed Ahmed Alakwa'A, and Nada Abbas Al Shahary

Date: 2005

Source: The 17th Scientific Conference for Graduation Researches Sana'a University, April 2006

Abstract

H.pylori is an ubiquitous bacterium with some 30-50% of the world's population estimated to be colonized with it. This study was conducted in Al-Kuwait University and Al-Thawra general hospitals during the period between August 2004 – January 2005. It is aimed to assess the prevalence of Helicobacter Pylori and its relation to khat chewing, smoking, age, gender and marital status. It is an applied, non – interventional analytical cross sectional study where 172 volunteers aged between 15 – 70 years old were tested by (ELISA) test done in the Central Laboratory. The positivity of H.pylori among the study subjects was 71.5% while 28.5% was negative without correlation to age, gender, smoking, khat chewing and marital status. The prevalence of H.pylori in our study agreed with studies and the prevalence rates of developing countries.

57) Title: Risk Factors & Outcome of Brain Stroke among the Patients of Al- Kuwait University Hospital

Supervisor: Prof. Ahamd Al-Hadad

Authors: Hesham Ali Al-Akhali, Hayfaa Yahya Al-Qudimi, Rashed Hameed Ahmed, Yusra Abdulsalam Al-Haddad, Hani Ateeq Al-Dubae, Elham Mohammed Azzaddin, Akhlaq Muhsen Al-Jabri, Fathi Mohammed Naji, Arwa Abdulbari Al-Hussaini, and Zaynab Hemedan Shaath

Date: 2003

Source: The 17th Scientific Conference for Graduation Researches Sana'a University, April 2006

Abstract

Brain Stroke is the first Neurological disease cause of admission to the hospital and the second cause of death in the world according to WHO report 2002. In our community, there is no a study performs about risk factors affecting Brain Stroke in Yemen. So, our study was conducted in Al-Kuwait university hospital during (1999 – 2003) and was aimed to evaluate Brain Stroke problem in Yemen & to determine its types, Risk factors, mortality rate, case fatality rate and admission rate for Brain Stroke. This study was non-interventional descriptive retrospective study conducted (505) patients presented with Brain Stroke, for that purpose a data collection paper was designed include information about patients, risk factor from history, specific test and investigation done for patients, also include types of Brain Stroke according to CT-scan. We concluded that Brain Stroke is an important problem faced our community and it is a major problem leading to death and disability in spite of it is not curable disease but it is preventable through control of risk factors like hypertension, so we recommended to pay a more attention to this problem, and to draw attention of people to it and risk factors through ministry of health and mass media.

58) Title: Prevalence of Epilepsy in Azal District in Capital's Secretariat

Supervisor: Prof. Ahmad Al-Hadad

Authors: Ahlam abduarhaman Al-Ramissi, Enass Hasan Ahmed Anbool, Hayfaa Saleh Ali Al-Fahad, Haneya Ahmed Mubeel Al-Sanaani, Jeelan Abdulfatah Asham, Laila Ahmed Mohammed al-Awami, Muneera Yahya Al-Fayeq , Ramzya abdulmaleek Al-Taeb , Wafaa Qahtan Salh Al-Qahtani ,and Yassmein Ahmed Ali Amer Sayfan

Date: 2005

Source: The 17th scientific Conference for Graduation Researches Sana'a University, April 2006

Abstract

Epilepsy is an important health problem and epidemiological studies are important for understanding this disease. In Yemen no previous study done regarding the epidemiology of epilepsy. So our study aims to determine the prevalence of epilepsy in Azal district in capital's secretariat.

The study shows that, 178 suspected cases of epilepsy was detected (crude prevalence from screening survey), the prevalence rate (PR) was (13.2/1000). Sex specific prevalence was higher in Men 14.83/1000 than in women 11.66/1000.

The prevalence per 1000 inhabitants for the age groups (years) was: 7.67 (0-9), 15.11 (10-20), 22.79 (21-30), 13.46 (31-40), 10.74 (41-50), 4.68 > 50 years old. And majority of epileptic cases 70.22% live in poor families whereas 29.78% of epileptic cases live in non poor families.

Most of the families know the epilepsy 838 and majority of them 568 know it as convulsion...

Most of the epileptic patients under treatment where 45.4% received antiepileptic drug therapy and 14.7% received the traditional therapy and remainder combination of both.

Regarding traditional therapy, Quran was the most type of traditional therapy received by the patients 68.87%, the major cause for receiving traditional therapy was no confidence in medical treatment 32.1%.

We conclude that, prevalence rate (PR) of epilepsy in Azal district in capital's secretariat is similar to many other developing countries but this is crude prevalence can be decreased or increased, so confirmative studies are needed.

59) Title: Traditional Tonsillectomy in Many Governorates of Yemen

Supervisor: Yahia Raja'a

Authors: Wadah Salh Al-Ansi, Arwa Ahmed Al-Haddad, Muammar Saleh Sahloul, Nabil Mohammed Al-Barati, Adel Yahya Al-Muhanadi, Bandar Ali Hezam Al-Abdali, Halah Mubarak Esmaeel, Sadiq Mohammed Al-Duaes, Tawfeq Kamel Al-Gharassi, and Mohammed Ahmed Izzaddeen

Date: 2005

Source: The 17th Scientific Conference for Graduation Researches Sana'a University, April 2006

Abstract

Traditional tonsillectomy represents a widespread problem in many areas in Yemen and performed by so many medicine men , they do without scientific basis , and because of the precautions of the surgical operation, there is a risk of many complications the patient. So that the purpose of this research is to evaluate this problem by the way of describing the distribution of patients, reasons for going to medicine men and the resulted complications by the description of these medicine men.

Our research is a descriptive study in 7 governorates for 4 samples: The first sample is 187 patients we looked for in these governorates. The second is 143 patients they admitted to hospital suffering from complications. The third sample is 6 medicine men from Sana'a city, Dhamar and Ibb. The fourth sample was 13 recently cutted tonsils for histopathological investigation. This methodology carried out by interview and photography.

We found that the low level economic state, low education of patients and their families, low cost take the medicine men and the bad effect of community; all they play the major role in the influence of patients toward the medicine men instead of hospital. The most complications were incomplete removal, bleeding and otitis media. We also found that the medical and surgical principles were not seen in diagnosing, carrying out these operations and correction of complications. No permission for work. These medicine men must be prevented from this work, many medical centers must be building and education for the community, all these procedures will improve the health for people and minimizing of this medical problem.

60) Title: The Association between D.M & T.B among Pulmonary T.B Patients More Than 20 Years Old

Supervisor: Abdullah Mohrm

Authors: Asheer Ali Mahyoob Abdo, Mohammed al-Dumaini Ali, Mohammed Ali Ahmed Al Awadi , Anwar Mohammed al-Duaess, Ahmed Samir Ahmed Nasser, Samya Khatar al-Ostah, Samar Abdulellah al-Maqtari, Samira Khaled al-Shareff, Fathya Ali al-Shehabi, and Hanaa Ahmed Ali.

Date: 2005

Source: The 17th Scientific Conference for Graduation Researches Sana'a University, April 2006

Abstract

Our study was conducted to determine the relationship between diabetes mellitus and tuberculosis infection among sputum smear positive pulmonary TB patients in National Tuberculosis Institute (NTI) IN Sana'a city during the mentioned period from 20 July /2004 to 20 September /2004. The study was comparative case-control study, the cases was carried out on the patients >20 years who presented to the NTI during the mentioned period & diagnosed as positive pulmonary TB by sputum smear three successive days, the total number of cases was 100 cases (60 male & 40female), While the controls were sampled from general population, they were matched for age, sex, residence, income status and they had no history of both (DM & TB). All study TB patients and controls have been subjected to; History taking, full clinical examination and we were taking blood samples from all patients and controls to test the random blood suger to chek the serum glucose concentration. The data was analyzed by SPSS computer system. We found that The diabetes mellitus among TB patients was 13% and 6% among control (odds ratio=2.341), this mean, the DM among cases occurs 2.341 fold than in control, which indicate the significant association of diabetes mellitus with tuberculosis. In comparing to the world wide studies, it was similar to those studies. The diabetic TB patients was more common among male (77%) than among female (23%), it was more in middle-aged (40-59 years) which represent 53.8%, while it was less among elderly (60 years or more) which represent (7.7%). The diabetic TB patients occur more in urban (61.5%) than in rural (38.5%). According to income state

The diabetic TB patients was more among moderate level (61.5%) and low income state (38.5%). The both diseases was more common among illiterate (46.2%) but, absent among high educational level patients. The BMI in diabetic TB patients was (46.14%) as normal weight, (30.76%) as underweight and (23.07%) as overweight. The past history of diabetes was present in 46% of all diabetic TB patients and absent in 54% of these patients. The family history of DM was present in 15.4% of diabetic TB.Patients and absent in 84.6% of these cases. Finally we asked about the past history of TB, we found only (7.7%) of all diabetic TB patients had history of TB while, (92.3%) had no history of TB.

61) Title: Daytime Urinary Incontinence in Aden Kindergarten children

Authors: Khalide Anner Yousef and Huda Omar Basaleem

Date: 2003

Source: The 13th congress of the Union of the Arab Pediatric Societies.

Abstract

Background: Daytime urinary incontinence is an involuntary or intentionally voiding of Urine in an awake child who is enough to have developed control. Prevalence is variable throughout the world. In Yemen, data regarding this problem is almost absent.

Objectives: (1) to determine the prevalence of daytime incontinence in Aden Kindergarten children aged 4-6 years , (2) to identify the relation between daytime enuresis with personal and family characteristic of the studied children, and (3) to describe the severity, characteristic and some related factors of daytime enuresis in the studied children.

Methodology: During February to May 2003, a cross-sectional comparative study was undertaken on all Kindergarten children aged 4-6 years in Aden Governorate (1704) in either public Kindergarten (14) or private (10). The total responded children were 1061. Data were obtained by using a precoded self-administered questionnaire, which was completed by parents. The questionnaire consists of two parts: The first part was on personal and family characteristic of the studied children and the presence of daytime incontinence. The second part filled if there is history of daytime incontinence, which contains information on the severity and possible associated factors. Stepwise multiple logistic regression analysis was used with daytime incontinence as dependent variable.

Results: Daytime incontinence encountered in 34 cases (3.2%), 18 cases females and 16 males. Significant differences between cases and incontinence-free children were encountered in birth order, type of kindergarten, and mother and father education ($p < 0.05$). The majority of cases (85.3%) have severe forms of daytime incontinence. Bed wetting and combined day and night wetting are more frequent among males, whereas urinary symptoms (urgency, squatting, dysuria, dribbling) are more frequent among females. Frightening and emotionally stressful events in the 6 months preceding the study, punishment for daytime incontinence and the presence of family history of logistic regression

Analysis shows that mother and father education are the significant predictors of daytime incontinence.

Conclusion: According to the authors Knowledge, daytime incontinence is studied for the first time in Yemen. The study results suggest that prevalence rat for day wetting in Aden Kindergarten children is similar to those in previous reported studies. Frightening and emotionally stressful event, family history of incontinence, and parent education were significantly associated with daytime incontinence. Future more deep studies are needed to explore this problem, which puts the helpless child in great conflict with his parents, since punishment was the tool mostly applied by the families of effected children.

62) Title: Pattern of Distribution GIT Tumors among Yemeni Patients

Supervisor: Mohammed Habed

Authors: Ali Hasan Ebrahim Al-Baz, Essam Ahmed Al-Sabri, Akram Abdulkareem Mahyoub, Lamia Abdo Ali Al-Sharjabi, Ashraf Qaied Saleh Al-Tairi, Khaled Darwish Hawshab, Emad Fadel Mohmood Abed , Fwaad Ahmed al-Ahdal, Khawlah Abdulkareem Al-Hamadi, and Fathya Abdo Al-Jelani,

Date: 2003

Source: The 17th Scientific Conference for Graduation Researches Sana'a University, April 2006

Abstract

Our study was a retrospective cross sectional hospital based study that had aimed to detect the pattern and distribution of gastrointestinal tumors (in regards with some related personal, habitual, the disease characteristical and therapeutic factors), among patients admitted to Al-Thawrah, Al-Gamhoori and Al-Kuwait Republic hospitals in the capital Sana'a during the year of 2003. Informations were gained from the archives of mentioned hospitals. Although some informations were incomplete, however, the study had illustrated a clear progressing risk of malignant gastrointestinal tumors, and hence. further studies in this field to detect the related risk factors and control them is very important.

63) Title: Predisposing Factors of Preeclampsia in Obstetrics Wards at Sana'a Hospitals

Supervisors: Prof. Ahmad Al-Hadad and Dr. Abdullah Ali Al-Rwkaimi

Authors: Al-Baz Muhsen Mohammed Al-Othari, Mohammed Ali Abdullah Zaid, Arwa Abdulwahed Ali Al-Awadhi, Mohammed hameed Al-Mulassi, Jamelah Hamoud Mohammed Al-Selmi, Najween Abdulqadeer Muqbel , Nashwan Moahmmed Lutf Al-Atab, Reem Abdullah Ali al-Rwkaimi, Salwa Ali Ahmed Al-Ghaithi, and Rwaah Hammed Ali Abo-Ghanem

Date: 2004

Source: The 17th scientific Conference for Graduation Researches Sana'a University, April 2006

Abstract

An estimated 365 women per 100,000 live births die in Yemen as a result of obstetric complications, compared with 20 women in developed countries. Preeclampsia is one of the major causes of maternal mortality which is avoidable. In Yemen, it is responsible for 11-15% of maternal mortality compared with 2.1% in developed countries.

This study objected to identify the prevalence and predisposing factors of preeclampsia to improve screening and prevent complications of preeclampsia during pregnancy and childbirth. For attending this objects our study was cross-sectional analytic study including 2686 consecutive maternities who admitted to obstetrics wards at Sana'a hospitals in the period from Aug. 2004-Jan. 2005.

The study revealed that, 304 women (11.3%) had preeclampsia. The most common predisposing factors for preeclampsia in the study population were in the following order: Low educational level, Khat chewing, Grand multipara, Nulliparity, Maternal age >35 years, previous history of preeclampsia, Family history of preeclampsia, Maternal age <20 years, Preexisting hypertension, Multiple pregnancy, Diabetes mellitus, and less frequency for hydrops fetalis and hydatidiform mole.

The study recommend to:

- Identifying the known risk factors of preeclampsia in obstetrical practice which help in early detection, avoiding complications and providing prophylactic measures for those who are at high risk.
- Increase maternal health education about the importance of antenatal care and warning signs and symptoms of preeclampsia for early detection and management.
- Do more studies in this subject.

64) Title: Puerperal Sepsis after Vaginal Delivery (Related Factors and Outcome) Al- Wahda Teaching Hospital Aden

Authors: Fairouz Abdul and Kader Sail

Date: 2004

Source: Faculty of Medicine and Health Sciences, Aden University

Abstract

Puerperal sepsis is one of the most common postpartum infections and one of the major causes of maternal deaths in Yemen and many of developing countries.

Objectives: to assess the most common related factors and outcome of puerperal sepsis after vaginal delivery.

Methods: This was a descriptive study of 103 patients of puerperal sepsis after vaginal delivery admitted in Al- Wahda Teaching Hospital during 20 months.

Results: the frequency of puerperal sepsis after vaginal delivery in Al Wahda hospital was 0.8 %, approximately 7.6 /1000 live birth. The maternal mortality rate reached up to 17.2%, constituted the second obstetric cause of maternal mortality. The patients of hospital delivery are more than home delivery (55.3 %), (44.6 %) respectively , Most of patients were illiterate (64%) below the poverty level (72%) and with inadequate PNC (70.8 %) . The most common related factors were, Anemia (88.2%) sexual intercourse in last month (82.5%) Retained placental fragments (71.8 %) , prolonged labor (56.5 %) Meconium passage (42.%) , lower genital tract infection (32%) , Prolonged rupture of membranes (31%) , premature rupture of membranes (19.4%) , while PPH , APH , PET , DM , PTL , and Placental manual removal were infrequent , Frequent vaginal examination significantly associated with lower genital tract infection , prolonged rupture of membranes and PROM in puerperal sepsis patients . The most common clinical types were endometritis (80.5 %), following by septic perineal wound (22.2 %) , sepsis shock (7.7%) and parametritis (4.8%) . About the outcome most of the patients survived with complete recovery (91.2%) and only (3.8%) survived with loss of the reproductive organs (hysterectomy) and the death was the final outcome in (4.8%).

Conclusion: The poverty, illitrecy and poor PNC were predominance which may responsible for presence the risk factors in most of the patients and increase the fatality of puerperal sepsis.

**65) Title: Rupture of the Uteruses and Related Factors in
Women Admitted To Al-Wahda Teaching Hospital
and Ibn-Kalodon General Hospital**

Author: Shama Mohammed Bin Mohammed

Date: 2004

Source: Faculty of Medicine and Health Sciences, Aden University

Abstract

Rupture of the uterus is one of the major catastrophic seen in obstetric practice, it carries a high risk of fetal and maternal mortality and morbidity. Uterine rupture incidence used as an indicator that reflect the quality of antenatal and obstetric care , and the health condition of women in general in any country . This study about rupture of the uterus and it related factors was performed in Al – Wahda Teaching hospital and Ibn –Kaldone General Hospital , and involved all the women with ruptured uterus who were admitted in these two hospitals through the period from 1st January 2001 – 31st December 2003 . In this study we try to determine the frequency of repute uterus in the tow hospital to identify some socio – demographic and obstetric factors related to it . And finally to find out the maternal and prenatal morbidity and mortality associated with this problem. During the period of study, there were 17077 deliveries in the two hospitals, among them there were 79 cases of rupture uterus with a frequency of 1 per 217 deliveries 59.5 % of these rupture were occurred in patients with intact (unscarred) uterus, while 40.5% were associated with previous scar. Rural residence, low economic level, was contributed with majority of patients with rupture uterus, especially those in the unscarred group. Lack residence, low economic level, were contributed with majority of patients with rupture uterus, especially those in the unscarred group. Lack of antenatal care high parity and advanced age (more than 35 years) were associated with 70.9 % , 58.2% , 49.6% of all the patients respectively. In 77.6% of all patients, labor attended at home and in 78.9% it assisted either by traditional birth attendant or midwives. Rupture of the previous uterine scar (mainly cesarean section scar) , obstructed labor and improper use of oxytocin were the major causes of rupture uterus in rate of 39.3 , 36.7,17.7 percent respectively , In 75.9% of the total cases the rupture was spontaneous while in 24.1% , it was traumatic due to oxytocin use or other traumatic obstetric maneuver , 82.3% of rupture occurred out side the two hospital (Extra hospital) , while 17.7% was inside the hospital (Intra hospital) . Hysterectomy was done in 65.8% of patients (especially in the

Unscarred group 77.7%) while suture repair was done in 34.2% of patients , the majority of them from the scarred group. Blood transfusion in more than 3 unit , wound infection and vesicovaginal fistula were the main maternal morbidities in a frequency of 39.7, 17.8, 5.5 percent respectively uterine rupture associated maternal mortality rate was 7.6% and prenatal mortality rate was 68.4% . All the maternal deaths except one were from the unscarred group and the improvement and expansion of antenatal care and obstetric services, especially in the remote of rupture uterus. The prevention of oxytocin use outside the hospitals, improvement of the general condition of the hospitals (including 24 hours blood bank services , neonatal care m presence of oxytocin infusion pump , CTG and other facilities also play role in both reduction of frequency of this problem and decrease is maternal and perinatal morbidity and mortality .

66) Title: Childhood Diabetes Mellitus Clinical Pattern & Management

Authors: Nuha Abdul and Malik Ahmed Aghbari

Date: 2004

Source: Faculty of Medicine and Health Sciences Aden University

Abstract

Type 1 diabetes is by far the most common chronic endocrine childhood diseases although the disease is prevalent worldwide: there is a significant difference in frequency among countries. This current study was conducted to elucidate some epidemiological factors related to occurrence, clinical pattern and management of the disease which revealed 53 children age ranged from 16 months to 14 years with type 1 diabetes attending Al Wahda- Teaching Hospital and Aden Hospital from April 2002- March 2003. A major bulk of our patients was from Aden governorate comprising 58.5% ,The admitted patients were 36 representing 0.7% of total pediatrics admission Newly diagnosed type 1 diabetes during one year constituted a relatively high number of 41.5% with 10-14 years (52.8%) , the most common age group affected at onset . Males were affected slightly in excess than females (52.8 vs. 47.2%) with a relatively high number of patients diagnosed in winter than in summer months (67.9% vs. 32.1%) a possible inherited genetic fact was a positive family history of diabetic in (50.9%) while consanguineous parents was relevant in (41.5%) and half of diabetic in (50.9%) of positive family history , and there were 3 children had siblings affected with type 1 diabetes (50%) in the first degree relatives . The early life risk factors of low or high birth weight, non breast fed , weaning practices and cow's milk consumption before 3 months of age revealed no significant correlation with type 1 diabetes . In genetically susceptible individuals the role of some possible environmental insults among our diabetic (50%) in the first degree relatives. The early life risk factors of low or high birth weight, non breast feed , weaning practices and cow's milk consumption before 3 months of age revealed no significant correlation with type 1 diabetes , in genetically susceptible individuals the role of some possible environmental insults among our diabetes patients included rubella (22.6%) , mumps (18.9%) and stress in (11.3%) Malaria identified in 6 newly diagnosed diabetic children during admission requires further broader studies to identify its possible role in etiology of diabetes since this possible correlation was not yet reported in children. The main classic symptoms were polyuria (90.6%) polydipsia (84.9%), polyphonic (66%), and weight loss in (58.5%) , Under-nutrition was relevant in majority of our patients (59.6%) had obesity . Diabetic ketoacidosis was present

In 15 patients the new cases comprised (31.8%) and majority were 10-14 years of age. Infection (80%) was the most common precipitating factor for DKA with malaria the predominant cause in 50%; followed by pneumonia (33.4%) and then omission of insulin in (33.3%) the most frequent metabolic disturbance was hypokalemia in (33.3%). All the patients received human insulin with the vast majority in twice daily injections (92.2%) with a mean dose of 0.79 unit/kg and the site of injections was isolated in the arms in (74.2%). Educational problems were relevant in 37.8% of our patients, where 8.9% withdrew from school , 26.7% irregularity and 2.2% were illiterate . Education on diabetes management is demanding and of primary importance. But the parents of our patients there were 2 deaths cases with a case fatality of 5.6% DKA was considered the most common cause of death . We conclude that diabetes mellitus is a major current stressful issue for our patients and there is growing income in number of patients, the etiology of diabetes is complicated and the impotent factors are age, inheritance, viral infections and autoimmunity Management of type 1 diabetes required a physician –coordinated team that provides constant patient and family education and awareness program treatment and continuing medial care.

67) Title: Symptomatic Uterine Leiomyoma: Clinical Epidemiological Study And Operative Management

Authors: Muna Ali Mahmoud Ba and Saddik

Date: 2004

Source: Faculty of Medicine and Health Sciences, Aden University

Abstract

This current study was conducted on Yemeni women with symptomatic uterine leiomyoma admitted to al Wahda Teaching hospital , , Aden city form period 1 May 2002 to 31 December 2003 as an initial step to define the extent of this problem and clarify different aspects and management of the disease . Symptomatic uterine leiomyoma was evident in 121 patients constituting 8.7 % of total gynecological admission and 27.8% of gynecological operations and were the major leading indication for 35.5% of hysterectomy. The predominate reproductive age groups affected was 35-44 years with a significant association observed between the different age groups of uterine leiomyoma, Among the related factors, a major problem in 40.5% of multiparous was documented, while oral contraceptive use in (33.1%) of patients. smoking cigarettes reported to decrease the risk of leiomyoma development, was found among 12.4% leiomyoma smokers, while obesity was a non-contributory finding in (11.5%) of patients. Intramural type was the commonest significant location of leiomyoma in 37.2% of patients followed by subserous and submucous leiomyoma in (28.1% and with significant percentage (77. 7%) followed by non-cyclic pain (50.4%) urinary symptoms (41.3%) and infertility in (39.7%) of patients , Menorrhagia was the most frequent pattern of abnormal uterine bleeding in (61.2%) of patients , mainly found in submucous (90.9%) and intramural (71% and 30.6%) respectively . The cornerstone of management of uterine leiomyoma in our hospital was with either abdominal momentum or hysterectomy performed in (36.4 %) and (63.6%) patients respectively. The patients who were less than 35 years of age and multiparous were subjected to myomectomy than hysterectomy. The principle indication for surgical intervention was abnormal uterine bleeding in (61.2%) of patients. Patients with infertility and pelvic pain were more likely to undergo myomectomy rather than hysterectomy while those with pelvic mass and previous myomectomy underwent hysterectomy rather than myomectomy. Surgical complications were more frequently encountered in hysterectomy than myomectomy. Surgical complications were more frequently encountered in hysterectomy than myomectomy groups that necessitated a mean hospital stay of 11.4 days for hysterectomy versus 8,4 days for myomectomy. We concluded that the present study gives indices to the disease important and The research results might be a foundation for further future analytic studies on uterine leiomyoma.

68) Title: Diagnostic Value of Lymph Node fine Needle Aspiration Cytology

Author: Fatima Taleb Thabit Abadel

Date: 2005

Source: Faculty of Medicine and Health Sciences, Aden University

Abstract

Enlarged lymph nodes are common phenomena in carrying out diagnosis in clinical practice. The causes are varied as benign and malignant processes might be responsible. It is important to give a quick proper diagnosis and find out whether the origin is malignant. The aim of this study was to assess the results of fine needle aspiration cytology (FNAC) of lymph nodes comparison with the results of histopathology. FNAC of lymph nodes from various anatomical sites were obtained from 100 patients. In the period between October 2002, to December 2003, of which histological results were available in 54 patients (55%) . Male to female ratio was 1.1:1.0 patients' age ranged from 1 year to 70 years with a mean age of 27.2+ 8.3 years and a median age of 27.4 years. Different age categories and groups were applied as (< 15, 16-30 , 31-45 and > 45 years old) . According to the anatomical regions , the areas that affected by lymph nodes swelling were cervical lymph nodes swelling were cervical lymph nodes 84.7% , axillary lymph nodes 10.2% and inguinal lymph nodes 5.1% . The results of FNAC reveal: Reactive hyperplasia in 31 tuberculosis 25% , chronic non-specific lymphadenitis 2% non Hodgkin lymphoma 17% , Hodgkin's lymphoma 3% metastasis 13% leukemia 1% and suspicious 6% and inconclusive 2% (excluded from the study) .In 53 patients the results were confirmed by histopathology study as 39 malignant lesions was 94.9% and 86.7% respectively . Likelihood positive ratio was 7.1% the likelihood negative ratio was 0.06% and unsatisfactory rate was 7.4% . Tuberculosis was diagnosed in 25 patients by FNAC, 21 patients of which proved positive by Ziehl Neelsen stain and four patients were negative. Those negative four patients proved T.B in histopathology study . The overall accuracy of Z.N stain was 84%, while the overall the accuracy of FNAC in the diagnosis of T.B was 100% in this study.

69) Title: Cervical Smear Findings In Patients Attendants In Al-Wahda Teaching Hospital

Author: Aida Hassan Mohammed

Date: 2002

Source: Faculty of Medicine and Health Sciences, Aden University

Abstract

Carcinoma of the uterine is identifiable in pervasive stage that is amenable screening and treatment. Cancer cervix is preventable and curable 100% if detected early. The Pap smear is the single most successful screening test in gynecology, has been responsible for the dramatic reduction in cervical cancer in past twenty years. The aim of this work is to detect the abnormal cervical cytology in women attended in Al-Wahda Teaching Hospital. This study included 500 patients attending the gynecologic out patients in Al-Wahda Teaching Hospital within July 2003 through March 2004 . Pap smear was taken after data collection then colposcopy was done for all patients who came with abnormal results. Colposcopically directed punch biopsy was performed for all abnormal colposcopic findings. The cytological report was based on the Bethesda classification, The unsatisfactory smear was 15.8%. The prevalence of intraepithelial abnormalities was 45.1% distributed 21.1% ASCUS 17.5% L SIL, 2.8% H SIL, 2.8% AGUS 0.7% squamous cell carcinoma. The study shows significant association between abnormal cytological result and age parity, oral contraceptive use , The age at marriage , age at first birth and smoking were non-significant factors . There were two cases of cancer found by means of colposcopically directed punch biopsy in low-grade lesions.

70) Title: Prevalence of Oral Cancer and Potentially Malignant Lesions among Shammah Users in Yemen

Authors : Scheifele C, Nassar A, and Reichart PA.

Date: 2005

Source: Oral Oncol. 2006 Jun 5; [Epub ahead of print]

Abstract

The purpose of this study was to assess the prevalence of oral precancerous lesions and squamous cell carcinoma (OSCC) in Yemeni users of shammah, a traditional smokeless tobacco habit known in the Arabian Peninsula. The study group comprised 199 male and one female shammah users who were interviewed via a standardised questionnaire and clinically examined in 48 Yemeni villages and cities. Cases with oral leukoplakia (OL) or mucosal burns (MB) were compared with users without any lesion. MB were detected in 31%, of which 46.8% were located on the tongue or floor of the mouth, and OL in 27%, of which 59.2% were located in the same region. In addition, two cases (1%) of apparent OSCC were identified. Statistically significant increased OR (95% CI) of OL were (a) 6.91 (2.66-17.95) for an average duration of the respective shammah application >5min.; (b) 4.90 (1.99-12.08) for a daily frequency of those applications >10; and (c) 4.22 (1.43-12.43) for a daily duration >6h of chewing qat, also a traditional habit in Yemen. Likewise, decreased OR were (a) 0.39 (0.18-0.85) for rinsing the mouth after the shammah application; (b) 0.36 (0.17-0.78) for successful attempts to stop the use in the past; and (c) 0.26 (0.09-0.72) for existing knowledge about the carcinogenicity of shammah that was present in only 19% overall. In conclusion, evidence was shown for a significant association between the prevalence of OL and the daily duration of shammah application in a dose-dependent manner. An appropriate public health program might help to reduce this potential OSCC burden in shammah users.

71) Title: Whether Post-Ureteroscopy Stenting Is Necessary Or Not?

Authors : Al-Baadani T, Ghilan A, El-Nono I, Alwan M, and Bingadhi A.

Date: 2005

Source: Saudi Med J. 2006 Jun; 27(6):845-8.

Abstract

Objective: To verify if post-ureteroscopy (URS) stenting is still necessary as a routine strategy, or if some cases can be treated without.

Methods: Between August 2004 and April 2005, 85 patients were admitted to the Urology Department at the Nephrology and Urology Center, Al-Thawra Hospital, Yemen with ureteric stones of different size and site. All were scheduled and treated by the ureteroscopy method. According to prospective pure randomization, 45 patients were left non-stented at the end of the operation (non-stented group), while 40 patients were left with stent (stented group).

Results: The ages of the non-stented group ranged between 6-70 years (mean 34.36 +/- 15.53), while the size of the stones ranged between 5-20 mm (mean 8.4 +/- 3.1). They were 33 males and 12 females. Regarding the site, 26 stones were in the right, and 19 in the left ureter. In the stented group, the ages ranged between 14-70 years (mean 39.35 +/- 13.36), while the size of the stones ranged between 6-16 mm (mean 9.9 +/- 3.2). They were 34 males and 6 females. Twenty-five stones were in the right ureter, and 15 in the left. Success was 100% in the non-stented group, while it was 39 out of 40 in the stented group. The 2 groups were compared statistically for postoperative analgesia, color clearance of urine and hospital stays, and found significantly different. However, for operative time, the difference was insignificant.

Conclusion: When treating ureteric stones by ureteroscopy, postoperative stenting should not be used as routine, but should be limited to those with ureteric injury, bigger sizes and prolonged operative time. The non-stenting method decreases the need for postoperative analges and hospital stay.

72) Title: C - reactive protein In Patients With First Onset Of Transmural Acute Myocardial Infarction at Al-Gamhouria Teaching Hospital Aden

Author: Waiel Moh'd Abdo Kahiry

Date: 2004

Source: Saudi Med J. 2006 Jun; 27(6):845-8.

Abstract

This is a prospective descriptive study for patients with first onset transmural acute myocardial infarction admitted at AL-Gamhouria Teaching Hospital for the period July 1st _Dec.31st, 2003 that were not having associated diseases. The aim of this study is to evaluate the level of serum C-reactive protein (CRP) in patients with first onset of transmural acute myocardial infarction (AMI).The study group included 47 patients and 94 normal healthy subjects. Males were more affected (72.3%) than females (27.7%) and all ages were affected after 35 years. Most of our patients (72.3%) were from Aden governorate. The mean serum CRP was found to be high on admission of patients with first onset transmural acute myocardial infarction (29.4+ 22.7 mg/L), but returns to normal level after one week (1.5+3.9 mg/l). The mean serum CRP in transmural AMI has no relation with sex ($p>0.05$), but has relation to age, waist measurement, body mass index (BMI), and overweight ($P<0.05$).the mean serum CRP was not affected by Qat chewing but it is affected by smoking .Serum lipids had a significant relationship to the was 9.7 +4.5 days, and 59.6%of the cases remained for 1-2 weeks. The mean serum CRP on admission had a significant relationship to the clinical outcome, and to the 30 – day mortality. For prognostic relation, the mean serum CRP was significantly related to short term prognosis as do the total WBC count, but neither the ESR nor the thrombocytes count do so. In conclusion, serum CRP determination on admission of onset tranmural AMI is of short term prognostic value, the more the elevated the serum CRP on admission, the worst the outcome.

73) Title: Acute Lower Respiratory Tract Infection In The Children under 5 Years of Age Admitted to al-Whahda General Teaching Hospital

Author: Intisar Salem Abdo Al-Hag

Date: 2004

Source: Saudi Med J. 2006 Jun; 27(6):845-8.

Abstract

Acute lower respiratory infection (ALRI) is a main cause of morbidity and mortality among children <5 years of age, particularly in developing countries. ALRI studies among Yemeni children are scanty, for which reason the author was motivated to perform this scientific work.

Objection: The main objective is to give an overview of the ALRI among Yemeni children <5 years of age.

Methodology: Is an observational descriptive study including all children (under 5 years of age) admitted to AL-Wahda Teaching Hospital during the period September 2002 through February 2003.

Result: ALRI cases (284), comprised 18.5% of the total number of admissions during the study period. The male: female (m:f) ratio was (1.5:1.0) ($P < 0.05$). Sixty-one percent of the patients were <12 months of age with a mean age of 12.6 months (standard deviation + 8.9 months) (Range 2 weeks _ 59 months). The most common ALRI found was bronchopneumonia (82%). The Wt /Ht parameter was normal in 26% of the simple. The Hb was <10 g/dL in 68%, the WBC was +10 000/cmm in 53% and the ESR was +20mm/hr in around 80%. The main complications were the acute gastroenteritis (63% of the complicated cases), seizures (22% of complicated cases), CCF (17% of complicated cases), mostly affecting those <12 months of age. Poverty was the most common associated factor (79%), and under nutrition (74%), partial and complete vaccination was found in (74%), while breastfeeding was mentioned for (79%). The case fatality rate was low (3.5%), mostly among those <12 months and significantly among females.

Conclusion: ALRI is a common cause of admission in children <5 years, affects males more than females, and most affected age group was <12 months.

Recommendations : (1) ALRI deserves many scientific studies in different regions of Yemen. (2) Pneumococcal and H.influenzae vaccination should be included in the vaccination schedule of Yemen.

Key words: Acute lower respiratory infection, children

74) Title: Idiopathic Epilepsy: Clinical Pattern among Children Followed At Al-Wahda Teaching Hospital

Author: Shamim Ali Mohamed Sulaiman.

Date: 2004

Source: Saudi Med J. 2006 Jun; 27(6):845-8.

Abstract

This prospective study was performed among children with idiopathic epilepsy attended at AL-Wahda Teaching Hospital, Aden, during the period 1st June – 30th November 2002, to illustrate the extent and to clarify the main aspects of this important disorder. Forty one patients (< 15 years of age) with idiopathic epilepsy included in this study. The majority of patients (68%) were 5 years and above of age and only 2(4.9%) were under 1 year. Males were affected more frequently than females (65.9% vs. 34.1%) and the onset of the disease, in the majority of patients (80.5%) was between 1-10 years of age. Two distinct groups of seizures were seen. Generalized with (51.2%) and partial in (48.8%). The most common type of the generalized group was tonic-clonic seizure (52.4%). Followed by myoclonic seizure (23.8%); while absence was only seen in 2 (4.9%) patients. Among the partial group. The secondarily generalized seizure was the commonest (70%) followed by the complex partial seizure (25%). In syndromic classification. Rolandic epilepsy was the most common .Seen in (31.7%) of patients, followed by grand-mal on awakening in (17.1%) and begin myoclonic of infancy (12.2%). Precipitating factors were detected in 11(26.8%) patients and the duration of seizures, in the majority of patients (65.9%), was 5 minutes or less. Past history of febrile convulsion was reported in (24.4%) of patients, family history of epilepsy in (36.6%), family history of febrile convulsion in (19.5%) and consanguinity of parents in 9(19.5%). Out of the total 41 patients subjected for EEG, abnormal findings were observed in (95.1%) and generalized discharge was the most common (56.4%).It could be concluded from this study that : idiopathic is relatively common in children, more so among those aged 5 years and more and that children with family history of epilepsy are at higher risk. The disease is usually benign, easily diagnosed and universally treatable. Therefore, early diagnosis and proper management are of great importance to potentiate its excellent prognosis.

75) Title: Placental Histopathological findings in Singleton Intrauterine Fetal Death

Author: Muna Anwar Kutb

Date: 2005

Source: Saudi Med J. 2006 Jun; 27(6):845-8.

Abstract

The aim of this research was to study the histopathological findings in the placenta of fetal death in AL-Wahda Teaching hospital in Aden, from December 2004 to May 2005. The study was a prospective and analytic "case control" study in which a total number of 102 placentas, Fifty two of them were collected from women with >_28 weeks of gestational age resulting in delivery of dead singleton baby, and 50 placentas from mothers with alive newborn as control, from the hospitals (Alwahda, Aden). The placentas were fixed immediately in 10% formalin. In gross preparation; weighting the placenta was done by a balance, the measurement of the diameter, and thickness by a ruler, then specimens undergo to a routine processing and staining. Macroscopic evaluation included the measurements of weight, diameter and thickness for both groups. The results were statistically significant in relation to the weight and diameter that were significantly reduced in placentas of fetal death. Microscopical study of the morphological alterations showed that the placentas of fetal death newborns characterized by the presence of: thickening of the villous blood vessels 48.1% , focal old and recent infraction 15.4% and extensive infraction 44.2% , severe fibrin deposition 55.8% , numerous Syncytial knots 48.1% , villous edema 50 cytotrophoblast proliferation 44.2% , chorangiosis 44.2% , generalized dysmaturity 42.3% , maternal floor infraction 19.2% , fetal thrombotic vasculopathy 40.4% , acute chorioamnonitis 9.6% , chronic deciduitis 26.9% , chorionitis 19.2 , chronic villitis 21.2% chronic intervillitis 17.3% , thickening of the basement membrane 48.1% , cytotrophoblastic inclusion 21.2% , unconverted blood vessels 26.9% , acute atherosclerosis 25.0%. The most important pregnancy complications associated with fetal death were: preeclampsia – eclampsia syndrome 25.0%, abruptio placenta 21.15%, urinary tract infection 13.46%, Polyhydramnious 7.69%, Oligohydramnious, Toxoplasmosis and premature rupture of membrane each accounted 3.85%, gestational diabetic and previous cesarean 1.92%. Complicated and uncomplicated fetal death placentas have variable morphological alterations. Also other clinical findings were correlated with the fetal death as: maternal age (the mean was 27.5 years), gestational age (the mean was 34.8 weeks), fetal body weight (the mean was 2055.8 g), parity (multipara accounted 65.4%), bad obstetric history present in 19.25 of the fetal death and the general appearance of the baby after delivery (normal appearance 38.5%, macerated 28.8% , congenital anomalies 13.5% , hydrops 11.5% , cyanosis 7.75)

76) Title: The Relationship between gall Bladder Diseases and Gastrointestinal Tract Cancer

Author: Sina Abdo Ali Al-Noami

Date: 2002

Source: Saudi Med J. 2006 Jun; 27(6):845-8.

Abstract

Three hundred patients were studied retro and prospective from 1997 to October 2001 two hundred fifty patients with gastrointestinal tract cancer (131 Males and 119 females) with an age ranging from 15-87, fifty patients with non-GIT cancer, considered as a control group with cancer of kidney and urinary Bladder, 30 males and 20 females with an age ranging from 30 – 79 years. All patients gathered from the surgical and medical wards of Baghdad Teaching Hospital of Saddam Medical City, the GIT Center, the Nursing Home Hospital, Al-Shaheed Adnan Khair Alla Hospital and the Institute and Hospital of Radiology and Nuclear Medicine. Both groups GIT and Non GIT control were refer all over the country, complete history was taken from each patient, investigation such as abdominal U/S and histopathological examination was essential for all patients. Gastrointestinal cancers were divided into three groups according to the gall bladder disease, which consider as risk factors of developing GIT malignancy. The first group with H/O cholecystectomy 70 cases (28%), the second group with H/O GBS 74 cases (29.6%), and the last group with absence of such risks (normal gall bladder) 106 cases (42.4%), all these patients are divided into 5 groups according to the site of gastrointestinal tract cancer:

1. Patients with Ca. stomach, 51 cases (20.4%).
2. Patients with Ca. small bowel, 36 cases (14.4%).
3. Patients with Ca. large bowel, 62 cases (24.8%).
4. Patients with Ca. hepatobiliary tract, 52 cases (20.8%).
5. Patients with Ca. pancreas, 49 cases (19.65%).

All these GIT cancers were studied in relation to GBD (Cholecystectomy and GBS) was statistically significant and compared with the control group. Most cases of GIT cancer with GBD occurs after 40 years of age and majority of them between 50 – 59 years of age and majority of them between 50 – 59 years (females 60.5%are more than males 54.9%), while in control group most cases occurs after 40 years of age, in which females with GBD represent (57.6%) while in the absence of GBD was (42.4%).Ca colon with GBD represent the highest percentage which is (67.7%) and by anatomical subtype of the colon, the proximal colon (78.5%) is more common than left colon and rectum (21.4%) and females more affected than males. So there are a relationship between GBD (cholecystectomy and GBS) and GIT cancer in which the OR of having GIT malignancy is 31.7 times in the presence of cholecystectomy and 33.5 times in the presence of GBS than those in control group.

77) Title: The Level of Uric Acid and Alkaline Phosphatase in Serum and Synovial Fluid among Patients with Osteoarthritis of Knee Joints

Author: Najat Mugahid A.Kader

Date: 2004

Source: Saudi Med J. 2006 Jun; 27(6):845-8.

Abstract

Synovial fluid analysis is considered as an interesting tool for the initial diagnostic evaluation in patients with arthritis, and reflects the pathology in the joint of interest and therefore is often a valuable adjunct to other diagnostic test.

Purpose of Study: To evaluate the level of uric acid and ALP in serum and synovial fluid of patients with knee osteoarthritis.

Design: This was a prospective non-randomized, quasi-experimental study on patients with osteoarthritis of the knee joint presented with knee effusion.

Setting And Time: Orthopedic out-patient clinic in Al-Gamhouria Teaching Hospital during the period October 2002 to December 2003.

Patients: Thirty one patients, clinically free from any other diseases, were enrolled in this study 17 males with mean age 55 (+13.1), and 14 females with mean age 53 (+ 9.9).

Results: The mean serum and Synovial fluid uric acid and ALP were within normal range and revealed obvious tendency to increase in Synovial fluid with increased age and BMI. A remarkable result showed that (51.65) of patients had normal levels of uric which was in favor of primary osteoarthritis, while (22.6%) had uric acid levels normal in serum but raised in Synovial fluid, which was in favor of normoureemic gouty arthritis. There was no statistically significant difference between uric acid and ALP in serum and Synovial fluid in regard to sex, age and BMI, though the results showed 42.95 of females with raised uric in comparison to males (23.55). Regarding age (80.6%) and (84.6%) of patients with age >_50 years showed a rise in SF uric acid and ALP level respectively. A tendency of increasing Synovial fluid uric acid and ALP observed among different classes of BMI which had statistically significant difference (P= 0.030 at normal and obese groups of BMI in relation to uric acid.

There was an association between raised mean value of Synovial fluid ALP in regard to duration and severity of osteoarthritis.

Conclusion: Detection of high levels of Synovial fluid uric acid aids in establishing the diagnosis of gouty arthritis. There was an association between risk factors of knee osteoarthritis and Synovial fluid uric acid and ALP. Serum and Synovial fluid ALP had statistical significant difference (P= 0.004). A strong correlation was observed between AIP, duration and severity of knee osteoarthritis.

**78) Title: The Epidemiological and Clinical Pattern Of
Bronchial Asthma Among Children Admitted Ar Al-
Wahda Teaching Hospital**

Author: Sausan Ali Naser "Amber"

Date: 2004

Source: Saudi Med J. 2006 Jun; 27(6):845-8.

Abstract

Childhood bronchial asthma is a chronic disease with an increasing prevalence, as well as number of preventable hospital emergency visits and admission (14, 15, 22, and 23). This prospective study was conducted among children admitted with asthma at Al-Wahda Teaching Hospital, Pediatric Department, during the period 1st September 2002 – 28th February 2003, as an initial step to define the extent of the disease and to clarify its related clinical epidemiological aspects. During the period of study, 64 patients, aged birth – 15 years, with bronchial asthma were admitted, representing (4.2%) of the total pediatric admission, and (17%) of the patients with lower respiratory disease. The highest rate of admission was seen during the cold months (November – January), (68.8%). The majority of the patients (62.8%) were under 5 years of age, and males were affected more than females (53.1% vs. 46.9%). The main presenting features were cough (96.9%), difficulty of breathing (96.95), wheezing (81.3%). Retraction (89.15), tachypnea (76.65) and chest hyperresonance (53.1%). Past history of atopic disease was obtained in 97.7%, mostly allergic rhinitis (70.3%). Positive family history of allergic disease was referred in (84.4%) of patients, asthma alone in 92.5%, asthma with allergic rhinitis in (50%), and consanguinity was observed in (42.2%) of patients. The main provoking factors were: cold exposure (79.95), exposure to smoke (39.1%), and U.R.T.I (25%) of patients. Most of the patients had history of low family income (76.6%), and were living in an industrial area (82.8%) in bad housing (62.5%), overcrowding (68.8%), and having animals and birds at home (68.8%). Most of previously diagnosed patients had frequent attacks (58.9%). Frequent admissions; two or less in (74.1%), three and more in (25.9%) of patients. Hyperinflation was the main chest x-ray finding (32.8%), and blood eosinophilia observed in (46.3%) of patients. School absence was reported in (31.3%), and emotional disturbances in (18.8%). The majority of patients (70.3%) were treated with intravenous aminophylline, (29.7%) with β -agonist inhaler, and intravenous corticosteroids were used in (45.3%) of patients. No death cases were

reported and the mean hospital stay was 3.5 days. We concluded that bronchial asthma is a recognized cause of admission in children, being common among those under 5 years of age who have history of atopy and family history of allergy. Frequent attacks are seen among those living in poor socioeconomic conditions and not subjected appropriate management and regular follow up. Therefore, great efforts, to introduce the required facilities for good assessment, proper management and control are highly recommended.

79) Title: Clinical Pattern of Gallbladder Stones in Patients Treated surgically in algamhouria Teaching Hospital-Aden

Author: Aref Mohammed Abdul-Karim

Date: 2005

Source: Saudi Med J. 2006 Jun; 27(6):845-8.

Abstract

Cholelithiasis is a major health problem in many countries of the world, so in developed countries. Gallstones are more common in adults than children and in females than males. The causes for these age- and sex- related variations are now well known. Epidemiological studies in many countries have been performed with the aim of establishing gallstone prevalence and incidence rates. Although gallstones are common, it is only symptomatic in 20 – 30 % of patients, with biliary colic being the most common symptom. The most common complications of gallstones are acute cholecystitis, acute pancreatitis, ascending cholangitis, and obstructive jaundice. Less Frequent complication includes Mirizzi syndrome, cholecysto-choledochal fistula, and gallstone ileus. The clinical presentations are varied; diagnosis is at time hazy and the treatment often problematic and challenging. The widespread use of diagnostic abdominal ultrasonography has led to the increasing detection of clinically unsuspected stones. This, in turn, has given rise to a great deal of controversy regarding the optimal management of asymptomatic or "silent" gallstones. Recent introduction of laparoscopic cholecystectomy as the treatment of choice of symptomatic gallstones, even with difficult forms, has further complicated the issue of management of asymptomatic gallstones. This was a prospective and descriptive study, conducted in the Department of surgery, Al-Gamhouria Teaching Hospital – Aden, Yemen, during the period from February 2003 to February 2005. The aim of this study was to determine the clinical pattern of gallbladder stones in patients treated surgically. The study included (70) patients, who had underwent cholecystectomy. Only 7.14% of them under went beside the cholecystectomy, choledocholithotomy plus choledochoduodenostomy (4.3% of patients) or choledocholithotomy with T-Tube drainage of the CBD (2.9% of patients). Mode of presentation of gallstone disease were as following: chronic cholecystitis (72.9%), acute cholecystitis (17.1%), jaundice (11.1%), asymptomatic (10%), Mucocele (4.3%), Mirizzi syndrome and porcelain G. B. (1.4%) for each Symptom was mainly as following: colicky pain in the RUQ (85.7%), nausea (70%), vomiting (65.75) and abdominal discomfort 98.6%. Examination revealed the following sign: tenderness in the RUQ (85.7%), jaundice (11.4%), palpable in the RUQ (12.9%), fever (7.1%), spasm in the

RUQ (12.9%) and hepatomegaly (2.95). Cholecystectomy was performed by open surgery altogether in 51.43% of patients, whereas by laparoscopic method – in 48.57%. Conversion rate, due to technical difficulties, from laparoscopic to Open surgery was 2.9%. Most of the removed stones were of mixed type – in 88.5% of patients, whereas pure cholesterol type of stones was found in 8.6% and pure pigment stones – in 2.9%. Histopathological results of selected ectomized gallbladders revealed chronic cholecystitis in 85.7%, no inflammation in 14.3%, and adenoma of the gallbladder without lithiasis in 1.4% of cases. It was concluded that ultrasound is now established as the most accurate method for demonstrating cholelithiasis. Laparoscopic cholecystectomy is a safe modality of treatment for asymptomatic cholelithiasis and chronic cholelithiasis. Factors associated with low conversion rate and low post-operative complications are properly selected and well prepared patients, as well as a good qualified senior surgeon experienced in open surgery.

**80) Title: Frequency of Hashimoto's Thyroiditis by FNA
Correlating With Thyroid Hormonal Status and
Other Parameters in Al - Gamhoria Teaching
Hospital**

Author: Maraim Ahmed Abdullah Humam

Date: 2003

Source: Faculty of Medicine and Health Sciences, Aden University

Abstract

The thyroid gland is one of the largest endocrine organs. It is a host for a wide variety of pathologic conditions, one of these is Hashimoto's thyroiditis, which is the most common form of thyroiditis, FNAC/B plays a significant role in the diagnosis of thyroid lesions due to its simplicity, safety, speedily and cost effectiveness. We studied the frequency of Hashimoto's thyroiditis diagnosed by FNA in the pathology Department of Al- Gamhoria Teaching Hospital during the period of January 2002 to January 2003, and we correlated the clinico-cytopathological aspects with thyroid hormonal function. A prospective descriptive study of all cases referred to Histo/Cytopathological department (200 patients) with indication of the FNA of the thyroid goiter, The FNA was performed in our pathological Department. The samples were fixed in ethyl alcohol 95% and stained with Hematoxylin and Eosin. The cytological diagnosis was done following to the standards criteria. The statistical analysis was performed by using Epi info 2000 program. Hashimoto's thyroiditis is the second most common thyroid lesion next to colloid goiter. It is most predominant among young women, and most frequently presented as a diffuse, firm, mobile and non-tender swelling. The thyroid function (hormonal status) in Hashimoto's thyroiditis is severely affected with the duration of the disease, long standing Hashimoto's thyroiditis may result in hypothyroidism. A higher degree of lymphocytic infiltration and Hurthle cell changes in Hashimoto's thyroiditis indicate more follicular destruction and so hypothyroid state developed.

81) Title: Percutaneous nephrolithotripsy (PCNL – First Yemeni Experience)

Author: Abdullah Ghilan, Ibrahim Al-nono, Tawfiq Al-badani, Mohammed Alwan, and Ahnad al-ahnomy

Date: 2000

Source: Yemen medical Journal

Abstract

Although PCNL is relatively an old approach for the treatment of the upper urinary tract calculi , it is still considered a new technique here in Yemen , where overseas visitors did only some cases intermittently , Between (1997-2000) 220 operations of PCNL were done on 208 patients . the success rate was 84% in the first session increased to 89% in the second Residual stones remain in 17 cases (7.7%) .Pelvic perforation and bleeding were the most common interpretative complications .No mortality was reported. The hospital stay was (3-6) days. PCNL is an effective. Safe ld replace the open approach in the majority if cases.

Key words: PCNL puncture –ESWL open surgery –PNC

82) Title: Frequency And Treatment Of Urinary Tract Infection In Children Subjected To Urine Culture, In Sana'a, Yemen.

Authors: Mohanna MA, and Raja'a YA.

Date: 2004

Source: Ayub Med Coll Abbottabad J. 2005 Apr-Jun; 17(2):20-2

Abstract

Background: This study was carried out to estimate the frequency of urinary tract infection among children subjected to urine culture presenting to Sam Hospital, Sana'a city, Yemen and to determine the susceptibility of the isolated bacteria to the antibiotics.

Methods: Record-based study was done in Sam hospital in Sana'a city Yemen during three years 1/1/1999-31/12/2001. Out of 70,500 patients seen for different causes through that period 820 (1.16%) having urinary symptoms (fever, rigor, vomiting, frequency or screams during the act of urination) were subjected to urine culture. Data about age and sex were also collected.

Results: Frequency of urinary tract infections among children examined by urine culture was 36.8% (n=302), with mean age of 7.6 years. 272 (90.1%) of them were females, and 30 (9.9%) were males. More than half 154 (51%) of infected patients were less than three years old. The isolated bacteria was Escherichia coli 201 (66.3%) followed by Staphylococcus suproyticus 45 (14.9%), Proteus spp 15 (4.9%), Klebsiella 12 (3.9%) then Enterococcus spp 12 (3.9%). Sensitivity of E. coli to Nalidexic acid was 70%, to Amoxicillin/Clavulanic acid was 29.9%, to Co-trimoxasole was 16.4%, and to Nitrofurantoin was 15.9%.

Conclusion: The majority of the infected patients were females and the highest frequency of the disease was in the first three years of age. The most common isolated microorganism was E. coli followed by Staphylococcus suproyticus, Proteus spp, then Enterococcus spp. The highly active antibiotic for most organisms isolated was Nalidexic acid, then amoxicillin/clavulanic acid. Nalidexic acid can be used as a first line empiric treatment and/or prophylaxis of UTI in children.

83) Title: Urolithiasis in Yemeni Children

Author: Abdullah Ahmed Karama Musa

Date: 2003

Source: the 13th congress of the Union of the Arab Pediatric Societies

Abstract

Objectives: Urinary tract stones are common disease in Yemen as other Asians countries. Here we tried to reflect light on this disease in our children.

Patients and Methods: 165 records were analyzed retrospectively. The patients were admitted and treated in three governmental hospitals and one private urologic clinic in Aden governorate during the period of January 1999 and December 2003 .

Results: The admitted patients were 136 boys and 29 girls with M: F ratio of 4.7:1, median age was 6 ± 4.3 years. UTI was the most common presenting symptom with stones. The majority of stones (63%) were in the lower urinary tract. Stones of 78.8% of the patients were removed by open surgery.

Conclusion: Childhood urolithiasis is a serious problem in Yemen. In order to prevent the development of end-stage renal failure and to improve the patients' quality of life, more efforts should be made with respect to early diagnosis and management of renal stones and urinary tract infections.

84) Title: Prevalence of HBV and HCV in Haemodialysis Patients and Study of Risk Factors

Authors: Dr. Rashed Abdulbary Alariky, Dr. Abdulrahman Alsilwi, Dr. Abdul hamid Saif, Dr. Hassan Jamel

Date: 2005

Source: Documented in research center, ministry of public health, Yemen

Abstract

In order to determine HBV and HCV among Haemodialysis patients in a dialysis center in Hodeidah and to evaluate the risk factors in transmission of HBV and HCV among Haemodialysis patients, retrospective study was carried in 150 cases of Haemodialysis in Hodeidah during the period from January 2000 to December 2002. Medical records of all patients were studied for each one. The following data was collected: Age, sex, HBs Ag, HCA, time of dialysis, blood transfusion statistical analysis of the prevalence of HCV and HBV.

84 cases under Haemodialysis having infection were subjected to the Chi-square test. 19 (12.6%) were found to be positive with HBsAg. Anti HCV was found in 43 cases (28.6%). Anti HCV + HBsAg was found in 22 (14.6%) The results were correlated with age, number of blood transfusion and time of dialysis. The study confirms the high prevalence of Anti-HCV-HBsAg and Anti-HCV + HBsAg in Haemodialysis patients and suggests that HBV and HCV are very important risk in dialysis unit.

Objectives: To determine the surface antigens of HBV and HCV among Haemodialysis patients in dialysis center in Haemodialysis Center in Hodeidah. To evaluate the risk factors in transmission HBsAg and Anti-HCV among haemodialysis patients and methods. Statistical analysis of the Prevalence of HBsAg and Anti-HCV, and correlation to the other variables using the Chi-square test.

Introduction: Hepatitis B Virus is one of the major health problems worldwide. Out of 2,000 million people who have been infected with the virus, more than 400 million are chronic carriers of the virus. In the Republic of Yemen, many surveys have been carried out which show high carriage rates (between 13% and 20%) of hepatitis B surface. The overall prevalence of total markers of Hepatitis B Virus was 45%. Viral Hepatitis remains a major hazard for both patients and staff of haemodialysis.

In recent years, blood transfusion is a recognized route of viral hepatitis infection in Haemodialysis Patients in most cases of hepatitis. More than 50% have been attributed to B and C hepatitis. The availability of a serological test to detect hepatitis B and C, now permits the evaluation of ethological role of HBC and HCV in this setting. Recent studies have reported a high prevalence

of HCV. The possibility of patient to patient or nosocomial transmission of viral hepatitis has become more evident in haemodialysis units. However HBsAg was found on the surfaces of gloved hands, needle clippers, furniture and external parts of dialysers. HBV survives drying for at least one week and surface contamination can be the source of infection.

Conclusion:The study confirms the high prevalence of HBsAg and Anti-HCV in haemodialysis patients and suggests that HBV and HCV infections are very important risks in dialysis unit.

The presence of HBsAg and Anti-HCV was found to be correlated to age, number of blood transfusions and time of dialysis

HBsAg and Anti-HCV were directly proportional to the number of blood transfusions indicates that the risk of HCV and HBV infections via blood transfusion is very high.

Patients on maintenance haemodialysis are at high risk of infection from blood borne hepatitis viruses.

Viral hepatitis remains a major health hazard for both patients and staff of haemodialysis units.

**85) Title: Apparent Causes of Death of Childhood Malignancy
in Oncology-Unit Al Wahda-Teaching Hospital**

Authors: Gamal H. Zain, Nadia Salah A.Kawi

Date: 2003

Source: The 13th congress of the Union of the Arab Pediatric Societies

Abstract

Malignancies remain the most common causes of death in children between 0-15 years. This study was performed to determine the apparent cause of death in patient admitted with malignancy to oncology-hematology ward-Alwahda –teaching hospital, and to document other clinico – epidemiological contributing factors. This is a retrospective, descriptive study. Including 160 admitted patients with malignancy, 61 (38%) patients of them were died. The others were cured or escaped from the hospital. The most important causes of death were infections which constituted 24.9% of death cases followed by bleeding 14.7%, metastasis 9.8%, relapses 6.5% and two patients died due to respiratory insufficiency. Mixed etiologies constituting higher Figures (21.4%). Those who died outside the hospital with out an identified cause constituted 9.8%.

There is decline in the number of death patients in the year 2003 (16.39%) and 2004 (11.4). Among the death patients 29.5% had NHL. 27.9% ALL and 21.3% AML. Male sex constitutes 55.7% of the death patients. About 66.7% of the patients were died in the hospital while 33.3% died outside the hospital, 55.7% of them were under regular treatments, 19.7% discontinued their treatment, 11.5 with irregulars treatment, and 11.1% die before receiving any treatment. Concerning the duration from the time of diagnosis till death 41% were died in the first months, 11.5% during the next two months and 19.7% between 3 and 6 months after diagnosis and thereafter the number decreased. We conclude that considerable number of patients with malignancy were died due to multiple causes including infection, hemorrhage, metastasis, respiratory insufficiency and others. Many of them discontinued their treatments and most of them died at the beginning of the treatment. Decline the number of death cases could be due to the improvement in the diagnostic and therapeutic tools. However, those tools still need more development and supports from the social and governmental sides to increase the life longevity of affected children.



**Communicable
Diseases**

1) Title: Prevalence of Hepatitis B and Hepatitis C in Blood Donors and High Risk Groups in Hajjah, Yemen Republic

Authors: Nassir A. Haidar

Date: 2005

Source: Saudi med J. 2002 Sep; 23 (9): logo -4

Abstract

Objectives: To determine the prevalence of hepatitis B antigen and anti-hepatitis C virus (HCV) antibodies in blood donors, hospital employees, patients suspected to have liver disease, and hemodialysis patients.

Methods: This study was conducted from April 1997 through to September 1999 as a hospital based study in Hajjah, Republic of Yemen. All healthy blood donors, hospital employees, suspected hepatitis patients and patients in the hemodialysis unit were included in this study. The hepatitis B antigen (HbsAg) measured in IMX system (Abott) using the monoclonal anti-HBs assays. The Hepatitis C screened by the same system using HCV version 3.0 [Third generation (Recombinant HCr43, c200, c100-3, NS5)].

Results: The screened blood donors for HbsAg and HCV were 7868 and 2434 with a prevalence of 9.8% for hepatitis B antigen and 1.1% for anti-hepatitis C virus. Two hundred of the hospital employees were screened with a prevalence rate of 1.5% and 0.5% for hepatitis antigen and anti-hepatitis C virus. The patients referred selectively for testing the hepatitis B antigen and anti-hepatitis C virus were 1229 and 749, the prevalence rate of HbsAg was 14.9% and 8.8% for anti-HCV, double infection (both hepatitis B virus and HCV) recorded in 8 patients forming 3.2% of the positives (in 0.4% of the total).

Conclusions The prevalence was high in Hajjah governorate, Republic of Yemen in both the healthy blood donors and in the risky groups except the hospital employees.

2) Title: Malaria Status in Al-Hodeidah Governorate, Yemen: Malariometric Parasitic Survey & Chloroquine Resistance P. Falciparum Local Strain

Authors : Al-Maktari MT, Bassiouny HK, Al-Hamd ZS, Assabri AM, El-Massry AG, Shatat HZ

Date: 2003

Source: Egypt Soc Parasitol J. 2003 Aug; 33 (2): 361-72.

Abstract

Malaria continues to be a major public health problem in Al-Hodeidah G. A cross-sectional malariometric parasitic survey including 4000 Yemenis of various age /sex groups were enrolled in this study from 43 villages/or Harah in five selected districts representing Al-Hodeidah G. Duplicate thin and thick blood smears were stained with Giemsa's stain and examined. Out of 4000 examined slides, 646 (16.2%) were found to be malaria positive, 508 (78.6%) of them were detected through ACD, while 138 (21.4%) cases were detected by PCD. The overall parasite rate was 16.2%, a situation of prevalently mesoendemic condition. *P. falciparum* was the predominant species recorded (96.7%), followed by *P. vivax* (1.7%), the least prevalent was *P. malariae* (0.3%). Yemen has been considered free of ovale malaria. The recorded an indigenous case of *P. ovale* for the first time in Yemen should be taken into consideration for the existence of this particular Plasmodium species when surveying for malaria in the future. The present study was the first document in Yemen to compare simultaneously the in vivo and in vitro response to chloroquine among 209 of *P. falciparum* field isolate patients that were satisfied all criteria of WHO for the implementation of the in vivo and in vitro tests and were obtained by PCD and ACD methods. Chloroquine resistance of local strain of *P. falciparum* was recorded in all studied districts (Zabid, Bajil, Azohrah, Azaidiah and Al-Hodeidah city). RIII (high level of resistance) was recorded for the first time in Yemen and should be taken into consideration in the treatment of infected malaria patients. This calls for urgent revision of the current malaria treatment policy in Yemen where chloroquine is the first-line treatment of uncomplicated *P. falciparum* malaria.

3) Title: Prevalence of rubella antibodies among Schoolgirls in Sana'a, Republic of Yemen

Authors : Sallam TA, Raja'a YA, Benbrake MS, Al-Shaibani KS, Al-Hababi AA.

Date: 2003

Source: East Mediter Health J. 2003 Jan-Mar ; 9 (1-2) : 148-51

Abstract

To determine the prevalence of rubella antibodies and age of exposure to rubella among Yemeni schoolgirls, we studied the sera samples of 323 female students (age range 11-21 years; mean age 16.26 +/- 1.89 years) drawn from three schools in Sana'a. All samples were screened for rubella IgG antibodies using enzyme linked immunosorbent assay and, if negative, for IgM in order to exclude the possibility of recent exposure. Of 323 sera, 296 (91.64%) were positive for rubella IgG. All IgG negative sera were also IgM negative. Comparable antibody prevalence was observed in all age groups. The prevalence of rubella IgG among Yemeni schoolgirls is high, with most becoming immune between the ages of 11 and 21 years. Although the age of exposure seems to be < or = 13 years, further investigation is needed to confirm this

4) Title: Prevalence of Blood-Borne Viral Hepatitis in Different Communities in Yemen.

Authors : Sallam TA, Tong CY, Cuevas LE, Raja'a YA, Othman AM, Al-Kharsa KR.

Date: 2003

Source: *Epidemiol Infect J.* 2003 Aug; **131(1): 771-5**

Abstract

It is generally believed that hepatitis B (HBV) and C (HCV) viruses are highly prevalent in the Republic of Yemen. This study investigated the prevalence of HBV and HCV markers in 494 blood donors from Aden, 493 blood donors from Sana'a, 97 residents from an African ethnic minority in Sana'a and 99 residents of Soqotra Island. There were significant differences in the prevalence of HBV carriage (HBsAg: 6.7, 15, 19.6 and 26.3% respectively; $P < 0.001$); past HBV infection (anti-HBc: 17.4, 18.5, 30.9 and 59.6% respectively; $P < 0.001$); susceptibility to HBV (absence of HBV markers: 73.3, 61.9, 38.1 and 9.1% respectively; $P < 0.001$), infectivity of HBV carriers (HBV DNA: 51.5, 33.8, 52.6 and 65.4% respectively; $P = 0.028$) and HCV antibodies (RIBA confirmed or indeterminate: 0.6, 0.2, 5.2 and 5.1% respectively; $P < 0.001$). A significant difference in HBV carrier rate and a borderline significant difference in the prevalence of natural infection was observed between males and females in the African community ($P = 0.02$ and 0.06 respectively). In contrast, in Soqotra Island, there was no significant sex difference in HBV carrier rate but susceptibility was significantly more prevalent in males ($P = 0.03$). This study illustrates that significant difference in prevalence and epidemiology exists among different communities within the same country, reflecting political, geographical and social differences. Control strategies should take these differences into account.

5) Title: Impact of Asymptomatic Malaria Parasitaemia on Cognitive Function and School Achievement of Schoolchildren in the Yemen Republic.

Authors : Al Serouri AW, Grantham-McGregor SM, Greenwood B, Costello A

Date: 2000

Source: *Parasitology J.* 2000 Oct; 121 (pt4): 337-45

Abstract

Asymptomatic malaria parasitaemia is prevalent among schoolchildren in many countries. The relationship between asymptomatic parasitaemia and children's cognitive functions was examined in a case control study and then in a natural experiment. A group (n = 445) of asymptomatic parasitaemic boys were compared with a group of non-parasitaemic boys (n = 142) matched for grade and school on their performance on a battery of cognitive tests. Two weeks later the parasitaemic children were re-screened and 150 children of those who remained parasitaemic were matched for grade and school with 150 children who were no longer parasitaemic. These children were then re-tested and their cognitive function compared. Initially, after controlling for age, socio-economic background and nutritional status the parasitaemic children performed worse than the non-parasitaemic children in fine motor function tests. There was no difference in change in cognitive test scores between those who became non-parasitaemic and those who remained parasitaemic. However, children who initially had the highest parasite density improved the most in 2 fine motor tests and a picture memory test. We were unable to show a benefit from losing parasitaemia over a 2 week period, but it remains possible that parasitaemia may affect cognition and longer term trials should be conducted.

6) Title: The Pattern and Distribution of Malignant Neoplasms among Yemeni Patients.

Authors: Al-Thobhani AK, Raja'a YA, Noman TA.

Date: 2000

Source: Saudi Med J.2003 Oct; 22 (10):910-3

Abstract

Objective his research was aimed at describing the pattern of malignancies among 1,491 patients during 1996 through to 2000 and to explore association with age, sex and site of cancers.

Methods: A research was carried out at a Histopathology Center in Sana'a, Republic of Yemen between the period August 1996 through to August 2000. All specimens were diagnosed by one pathologist based on the International Classification of Disease for Oncology.

Results: revealed comparable male: female ratio (1:0.92) and mean age of 46.1 +/- 22.8 in males and 44.2 +/-18.3. The most common cancers were the gastrointestinal tract malignancies, 22%. Lymph node cancers constituted 16%, followed by head and neck malignant tumors 12%, skin 10%, urinary tract 8%, bone and soft tissue 8%, breast 8%, female genital system 5%, thyroid gland 2% and finally male genital system, bone marrow and central nervous system/eye 2% each. For female patients breast cancers and gastrointestinal tract cancers were equally the most frequent malignancies. Skin cancers, followed by gastrointestinal tract and male genital system affected mostly older age patients. While bone marrow followed by central nervous system and eye, then bone and soft tissue cancers were mostly diagnosed in young age patients. Within the gastrointestinal tract liver was the most affected site 33% and adenocarcinomas were the most frequent diagnosed type 42%. Among lymph nodes malignancies non-Hodgkin's lymphoma constituted 42%. Oral cavity cancers constituted 73% of head and neck malignancies, where squamous cell carcinoma constituted 65%.

Conclusion:Gastrointestinal tract in general with breast in females, were the most frequent sites of malignancies in the Republic of Yemen. Adenocarcinoma and squamous cell carcinoma were the most frequent typ.

7) Title: Schistosoma Mansoni as a Cause of Bloody Stool in Children.

Author: Haidar NA.

Date: 2000

Source: Saudi Med J.2001 Oct; 22(10):856-9

Abstract

Objective:To identify the frequency of schistosoma mansoni as a cause of bloody stool or diarrhea and study the clinical, laboratory, radiological characteristics and regional distribution in Hajjah governorate. **METHODS:** This was a hospital based study conducted in Hajjah town, from April 1997 to May 1999. Medical charts were reviewed for age, sex, area of residency, clinical presentation, number of previous schistosoma mansoni infections, possible causes of bloody stool or diarrhea, number of hospital visits and results of any radiological studies made. **RESULTS:** Three hundred and sixty patients presented to the pediatric clinic with a history of bloody stool, 156 (43%) with schistosoma mansoni, older children formed 83% and boys 79.5%. Ninety five and a half per cent were from Hajjah governorate, 67% were from Hajjah town. Previous schistosoma mansoni infection was found in 19% and in 20% there was other associated parasitic infestation. **CONCLUSION:** Schistosoma mansoni is a major health problem in Hajjah governorate. Older boys were the most at risk group. Patients in rural regions had difficulties in reaching the hospital, indicated by their low percentage compared to patients from urban areas.

8) Title: Bacterial Aetiology and Anti-Microbial Resistance of Childhood Diarrhoea in Yemen.

Author: Banajeh SM, Ba-Oum NH, Al-Sanabani RM.

Date: 2001

Source: Trop Pediatr J.2001 Oct; 47(5):301-3

Abstract

In a 12-month period, 561 stool cultures from Yemeni children aged 1-60 months and presenting with diarrhoea, were analysed to identify the bacterial aetiology and their anti-microbial resistance to the commonly used antibiotics. A total of 190 (33.9 per cent) were positive for bacterial culture. Most of the positive cultures (58 per cent) were from children aged 1-12 months. The majority of the positive cultures were enteropathogenic *Escherichia coli* (58.4 per cent) *Salmonella* spp., and *Shigella* spp. (20 per cent each). *Campylobacter* were found to be an extremely uncommon agent of childhood diarrhoea making only 1.6 per cent of the positive cultures. The majority of the *Salmonella* were group C (60.5 per cent) and group B (29 per cent). Of the *Shigella* isolates, 13 (34 per cent) were *S. flexneri*, and seven (18 per cent) *S. dysentria*. More than two-thirds of the *Salmonella* isolates were resistant to nalidixic acid, chloramphenicol, co-trimoxazole, gentamicin, and amoxicillin, while 42 per cent were resistant to cefotaxime. Most of the *Shigella* isolates were susceptible to nalidixic acid and cefotaxime, and resistant to the other antibiotics. All the tested enteropathogenic *E. coli* isolates were resistant to amoxicillin, 83 per cent were resistant to co-trimoxazole, 62 per cent to chloramphenicol, and 54 per cent to gentamicin, while only 16 and 6 per cent were resistant to nalidixic acid and cefotaxime, respectively. This study, the first in Yemen, draws attention to the urgent need of a national surveillance system, essential for the containment of anti-microbial resistance.

9) Title: Clinical Features, Tissue smear and Competitive Enzyme Linked Immunosorbent Assay as Dignostic and Prognostic Procedures for Visceral Leishmaniasis in Yemen

Authors: Agina AA, Khalil AH and Mustafa FM, Helmy MM.

Date: 2000

Source: Egypt Soc Parastiol J .2001 Aug; 31(2):345-53

Abstract

Twenty six Yemeni patients with clinically visceral leishmaniasis (VL) and laboratory abnormalities were subjected to L. donovani species-specific monoclonal antibody (D2) and a competitive enzyme-linked immunosorbent assay (C-ELISA). The results were compared with those obtained by microscopy Giemsa stained tissue smears of bone marrow or splenic aspiration. Of the patients, 51 (82.3%) were positive and 3 (4.8%) were negative by both microscopy and C-ELISA. An additional 8 (12.9%) who were negative by microscopy were positive by C-ELISA. 59 patients were treated with sodium antimony gluconate, 45 (76.3%) were drug responsive and 14 (23.7%) were drug resistant. The C-ELISA of 17 patients before and after chemotherapy showed a significant decrease in percent inhibition of monoclonal antibodies D2 in drug responsive patients. In drug-unresponsive patients the percent inhibition of D2 was unchanged or slightly increased. The results indicate that C- ELISA is more sensitive and specific than microscopy, especially for early diagnosis of VL and to evaluate the success of drug treatment.

10) Title: Visceral Leishmaniasis in Children in the Yemen Men

Authors: Haidar NA, Diab AB, El-Sheik AM.

Date: 2000

Source: Saudi Med J. 2001 Jun; 22(6):516-9

Abstract

Objective: The clinical presentation and duration of therapy for visceral leishmaniasis varies in different countries. The sodium stibogluconate is costly, and a trial of short course therapy has not yet been studied in Hajjah governorate. The aim of this study was to evaluate the efficacy of a 20 days regimen of sodium stibogluconate and to ascertain the epidemiological, clinical and laboratory features of visceral leishmaniasis in children.

Methods: This was a prospective hospital-based study in Hajjah Governorate, Republic of Yemen. Children of 12 years of age or less with a confirmed diagnosis were included. Sodium stibogluconate was given in a dose of 15mg/kg/dose daily for 20 days, then the patients were re-evaluated and the data required for achieving the other objective was collected.

Results: Thirty-two patients fulfilled the inclusion criteria. The age ranged from 12 months to 144 months (67.7 +/- 35). Females formed 53% of this criteria. The duration of symptoms ranged from 2 weeks to 116 weeks. Fever, fatigability and abdominal distension were the most common symptoms. The hematological findings showed anemia in all patients, leukopenia in 81% and thrombocytopenia in 56%. Formol gel test was negative in 20 patients (63%). Malaria smear was positive in 11 patients (34%). Splenic aspiration was carried out in 25 patients (78%) and bone marrow aspiration in 7 patients (22%). Blood transfusion was required for 24 patients (73%). After 20 days treatment with pentostam, 20 patients (63%) came for follow-up and re-tested for parasitological cure. Half of those were still positive for leishmania donovan bodies. The mortality rate was 5%.

Conclusion: The clinical features were of the Mediterranean type. Twenty days treatment with sodium stibogluconate was not adequate.

11) Title: Malaria status in Al-Hodeidah Governorate, Republic of Yemen. Part II: Human factors causing the persistence of chloroquine resistant P. falciparum local strain.

Author: Al-Maktari MT, Bassiouny HK.

Date: 2002

Source: Egypt Soc Parasitol J.2003 Dec; 33(3):829-39

Abstract

Two hundred and nine Yemeni with P. falciparum local strain satisfying all criteria of WHO for monitoring chloroquine sensitivity by in vivo and in vitro tests in urban and rural population of Al-Hodiedah G. were interviewed to study the human factors causing the persistence of chloroquine resistant. A pre-designed questionnaire sheet was used for every case, which included data concerning assessment of chloroquine resistant problem. The results revealed that, 54.7% of the studied group had used chloroquine for malaria treatment. About 75.0% were used antimalarial drugs by over the counter (OTC) i.e. self medication which was more common in rural (76.9%) than urban areas (63.6%). Chloroquine resistant was increased with the decrease of education level; decrease income/capita/month; among younger age-group (<15 years); and sleeping in open air in courts (56.3%, 57.8%, 56.6% and 66.7% respectively). The highest percentage of chloroquine resistant (71.0%) was recorded among cases with high parasite density (>1000 asexual parasite/microL); in presence of gametocytes (82.6%); among cases who did not complete antimalarial course (89.7%); those who gave a history of receiving antimalarial drugs without laboratory diagnosis (75.0%); those keeping leftover drugs after usage (63.8%) and reading expiry date and pamphlet of malaria drugs (26.9%). The results suggested the need for increasing of public awareness on emergence and spread of chloroquine-resistant and to outline potential risk factors useful for health workers in Yemen, especially in remote areas to identify high risk P. falciparum patients for chloroquine resistance before treatment.

12) Title: Malaria And Intestinal Parasitosis Among Children Presenting To The Paediatric Centre In Sana'a, Yemen.

Authors: Azazy AA and Raja'a YA.

Date: 2000

Source: East Mediterr Health J.2003 Sep-Nov; 9(5-6):1048-53

Abstract

We studied the profile of malaria and intestinal parasitosis among children presenting to the Paediatric Health Centre in Sana'a from January 1998 to December 2000. In stool samples from 9014 children, *Ascaris lumbricoides*, *Entamoeba histolytica*, *Giardia lamblia* and *Trichuris trichiura* were the most common. Infection with parasites of direct life-cycle were similar in boys and girls. Schistosome infection was significantly higher in boys than girls, but girls were more infected with ascariasis. The only species of malaria parasite found in blood samples from 753 children with suspected malaria was *Plasmodium falciparum*, with the highest rates in April-June. The majority of positive cases were Yemeni children, but 10.8% were Sudanese or Ethiopian.

13) Title: Bacterial Profile And Clinical Outcome Of Childhood Meningitis In Rural Yemen: A 2-Year Hospital-Based Study

Authors: Al Khorasani A and Banajeh S.

Date: 2001

Source: Infect J. 2006 Jan 20;[Epub a head of print]

Abstract

Background: Childhood acute bacterial meningitis (ABM) is an important cause of death and long-term neurological disability in Yemen, the only low income-high mortality country in the Arabian Peninsula. The objective of this study was to document the microbial characteristics, the antibacterial sensitivity pattern, and the outcome for children hospitalized with ABM, prior to the introduction of Haemophilus influenzae type b (Hib) vaccine in Yemen.

Patients And Methods: The study was retrospective, conducted at a rural district hospital, serving the rural population of the northern parts of Yemen. All patients aged 1 month-15 years admitted between May 1999 and June 2001, with clinical evidence of meningitis and cerebrospinal fluid (CSF) cultured, were included in the study. Clinical information from case notes, including CSF result and the outcome on discharge, were obtained. Analysis of extracted data was performed using Epi Info software.

Results: During the 2-year study period, 160 study patients met the inclusion criteria, and 7 (4.4%) were negative for bacterial growth. In the 153 positive cultures there were 46 (30.1%) Streptococcus pneumoniae (SP), 23 (15%) H. influenzae (HI), 81 (52.9) Neisseria meningitidis (NM), 2 (1.3%) Staphylococcus aureus (S. aureus), and 1 (0.7%) Escherichia coli. Sixteen study patients died (overall case fatality rate (CFR) 10%), 7 aged under 12 months, 6 aged 12-60 months, and 3 more than 60 months. Ten deaths were due to SP meningitis, 2 HI meningitis, 3 NM meningitis, and 1 had S. aureus. Of the 144 survivors, 28 (19.4%) developed permanent neurological complications, 17 aged less than 12 months, 6 aged 12-60 months, and 5 more than 60 months. SP meningitis accounted for 57.1% (16/28), and 6 (21.4%) had HI meningitis. Among the 89 aged 1-60 months, 13 died (CFR 14.6%), and 23 (30.3%) of the 76 survivors developed permanent complications. Of those tested 20% and 35% of the 20 HI tested isolates and 9.5% and 14.3% of the 42 SP isolates, were resistant to ampicillin and penicillin G, respectively, and the majority of the 81

NM isolates were sensitive to both. The 3 pathogens were largely resistant to gentamicin, and almost all were susceptible to chloramphenicol and cefotaxime.

Conclusion: In contrast to the studies from the low-mortality countries of the region, our study showed that the predominant pathogens of childhood ABM were SP and NM. SP meningitis was associated with increased mortality and permanent disability.

14) Title: Cutaneous Leishmaniasis In Yemen: Clinicoepidemiologic Features And A Preliminary Report On Species Identification.

Authors: Khatri ML, Haider N, Di Muccio T, and Gramiccia M.

Date: 2005

Source: Int Dermatol J.2006 Jan; 45 (1):40-5

Abstract

Objective: To study the clinicoepidemiologic profile of cutaneous leishmaniasis (CL) in Yemen (Hajjah and adjacent regions) and to identify the Leishmania species responsible.

Methods: All 136 cases [96 (70.6%) males and 40 (29.4%) females] were subjected to detailed analysis. The diagnosis was based on positive slit skin smear and histopathologic studies when needed. In four cases, in vitro culture and Leishmania characterization by isoenzyme electrophoresis of 15 isoenzymes were attempted.

Results: Most of the patients (107; 78.7%) were residents of the Hajjah Governorate. The majority of the patients had a single noduloulcerative lesion on the face. Slit skin smear was positive for parasites in 128 (94%) cases (highly positive in 63 cases) and four Leishmania isolates were obtained. The isoenzyme characterization results revealed *L. tropica* to be the species responsible, and zymodeme analysis showed that one strain belonged to zymodeme MON137, and three strains belonged to two previously undescribed zymodemes similar to zymodeme MON71.

Conclusion: seems to be endemic in this region. *L. tropica* was identified as the species responsible in four strains.

15) Title: Respiratory Syncytial Virus And Human Metapneumovirus In Children With Acute Respiratory Infections In Yemen.

Authors: Al-Sonboli N, Hart CA, Al-Aeryani A, Banajeh SM, Al-Aghbari N, and Dove W, Cuevas LE.

Date: 2004

Source: *Pediatr Infect Dis J.*2005 Aug; 241(8):734-6

Abstract

A survey of 604 Yemeni children younger than 2 years with acute respiratory infections identified respiratory syncytial virus (RSV) in 244 (40%), human metapneumovirus (HMPV) in 41 (7%) and RSV/HMPV coinfection in 25 (4%) children. RSV infections occurred in younger children and were associated with more severe hypoxia than observed with HMPV. Both viruses are important causes of severe acute respiratory infection in Yemen.

16) Title: Prescribing Rationality And Availability Of Antimalarial Drugs In Hajjah, Yemen.

Author: Abdo-Rabbo A

Date: 2002

Source: East Mediter Health J.2003 Jul; 9(4):607-17

Abstract

This study in 3 districts of Hajjah governorate, Yemen, used WHO core indicators to investigate irrational prescribing of antimalarial drugs in public and private health facilities. Laboratory diagnosis rates were low in public facilities (21.2% of encounters). Informal prescriptions were issued in > 70% of encounters (public and private). Important patient and drug information was missing from many prescriptions. Both public and private facilities had high rates of prescribing multiple drugs (mean 3.0 and 4.0 respectively per encounter, maximum 11), brand-name drugs (32.9% and 64.2%) and injections (17.2% and 33.5%). The total number of antimalarial drugs registered in the country was found to be 98, with 52 different formulations and strengths of chloroquine. Efforts should be made to promote rational prescribing of antimalarials.

17) Title: Household Survey Of Treatment Of Malaria In-Hajjah, Yemen.

Author: Abdo-Rabbo A.

Date: 2002

Source: East Mediterr Health J.2003 Jul; 9(4):600-6

Abstract

The practice of self-medication is widespread in the Republic of Yemen. The objectives of this study were to describe the treatment of malaria in households and to promote rational treatment. We surveyed 201 households with family members suffering from malaria or being treated with antimalarials. Numbers of prescribed and non-prescribed drugs were recorded and treatment rationality assessed. Common patterns of irrational treatment of malaria were observed. Polypharmacy was common, with an average of 3.8 total drugs and 1.3 antimalarials found per encounter. Misused and over use of injectables antimalarials was common. People practised self-medication because of belief, experience, lack of confidence in health services and cost of treatment. Most had no knowledge concerning possible risks of antimalarials.

18) Title: Antimicrobial Activity of Some Medicinal Plants of the Island Soqatra.

Authors: Mothana R A, Lindequist U.

Date: 2003

Source: *Ethnopharmacol J.*2005 Jan 4; 96(1-2):177-81

Abstract

Twenty-five selected plants belonging to 19 families were collected from different localities of the island Soqatra, dried and extracted with the solvents chloroform, methanol and hot water to yield 80 extracts. The extracts were tested for their antimicrobial activity against several Gram-positive and Gram-negative bacteria and against one yeast species using agar diffusion method. Antibacterial activity was demonstrated especially against Gram-positive bacteria including multiresistant *Staphylococcus* strains. The greatest activity was exhibited by the methanolic extracts of *Boswellia elongata*, *Boswellia ameero*, *Buxus hildebrandtii*, *Commiphora parvifolia*, *Jatropha unicostata*, *Kalanchoe farinacea*, *Pulicaria stephanocarpa*, *Punica protopunica*, *Withania adunensis* and *Withania riebeckii*. Only the methanolic extract of *Buxus hildebrandtii* displayed significant antifungal activity.

19) Title: Qat Chewing and Pesticides: A Study Of Adverse Health Effects In People Of The Mountainous Areas Of Yeme N.

Authors: Date J, Tanida N, and Hobara T.

Date: 2003

Source: Int Environ Health Res J.2004 Dec; 14(6):405-14

Abstract

Chewing qat leaves, *Cathula Edulis*, is now a very common behaviour among the people of the mountainous areas of Yemen. For about the past 20 years, in tandem with national development, qat chewing has been rapidly expanding, and the use of chemical pesticides in qat production has been increasing. In this study, the adverse effects on human health of qat chewing combined with pesticide use were investigated. Results of interviews and questionnaires showed that chewers of qat grown with few or no chemical pesticides and chewers of qat grown with chemical pesticides have considerably different subjective symptoms. Chewers of qat produced in fields where chemical pesticides are used regularly have more symptoms than chewers of qat produced in fields where chemical pesticides are rarely or never used. Chewers of qat produced with more chemical pesticides, in particular, experience acute adverse effects on the digestive system and chronic adverse effects such as body weakness and nasal problems. Farmers who chew homemade qat on which they spread chemical pesticides by themselves may have the highest health risks regarding the combination of qat and pesticides. It is concluded that chewing qat grown with chemical pesticides causes considerable adverse health effects in human beings.

20) Title: Khat Habit and its Health Effect. A Natural Amphetamine.

Authors: Dhaifalah I, Santavy J.

Date: 2002

**Source: Biomed pap Med Fac univ Palacky Olomouc Czech Repub
J.2004 Jul; 148(1):11-5**

Abstract

Chewing the leaves of the khat shrub is common in certain countries of East Africa and Arabian Peninsula mainly Yemen. It has been established that a khat plant leaves contain an active psycho-stimulant substance known as cathinone that is similar in structure and pharmacological activity to amphetamine in affecting the CNS. Intoxication with khat is self-limiting but chronic consumption can cause certain health disturbances in the user and also lead to social and economic damage to the individual and the community. In recent years, several cases of intoxication have been observed outside the area of its use. In this view, the khat habit, its health effects and socioeconomic aspects are described with the political issue they imply.

21) Title: Malaria in Pregnancy in Hodiedah, Republic of Yemen

Authors: Assabri AM, Muharram AA.

Date: 2001

Source: East Mediterr Health J.2002 Mar-May; 8(2-3):245-53

Abstract

In the Republic of Yemen, Plasmodium falciparum is the predominant causative agent of malaria and is associated with adverse consequences for pregnant women and their babies. The prevalence and clinical manifestations of malaria among 500 pregnant (260) and non-pregnant (240) women were compared. Clinical examinations, laboratory investigations and a structured questionnaire were used to collect data. The prevalence of malaria was higher among pregnant women (55%) than non-pregnant women (20%). Anaemia was significantly more prevalent among pregnant woman than non-pregnant women and also more prevalent in pregnant women with malaria than non-pregnant women with malaria.

22) Title: Leprosy Control In The Republic Of Yemen: Co-Operation Between Government And Non-Government Organizations, 1989-2003.

Authors: Al Samie AR, Al Qubati Y.

Date: 2003

Source: Lepr Rer J. 2004 Jun; 75(2):164-70

Abstract

Although the prevalence rate of leprosy in the Republic of Yemen has dropped below the WHO elimination level of less than one case per 10,000 of the population, it is still regarded as a serious public health problem calling for continued vigilance, notably in the detection and treatment of hidden and undiagnosed cases. In the past, religious misinterpretation has generated adverse behaviour patterns towards people affected by leprosy, characterized by aggression, negligence and isolation. Until about 1982, following a visit of a leprologist (Dr S. K. Noordeen) from the World Health Organization, there was no leprosy control programme and attempts to establish one remained ineffective until in 1989, when an agreement was signed between the Ministry of Public Health and Population and the German Leprosy Relief Association. This led to the development of a leprosy control programme in four governorates, later extended to the rest of the country. This paper describes the progress made in the control of leprosy in the Yemen, 1989-2003, by the Ministry of Health and Population and the GLRA, in association with two local societies.

23) Title: Increase In Susceptibility Of Young Adults To Hepatitis B Infection In The Republic Of Yemen.

Authors: Sallam TA, Cuevas LE, Tong CY.

Date: 2001

Source: Trans R Soc Trop Med Hyg J.2003 Mag-Jun; 97(3):302-4

Abstract

Susceptibility to hepatitis B virus (HBV) infection among 987 young adult male blood donors in 2 major Yemeni cities was investigated. Hepatitis B surface antigen (HBsAg) was detected in 10.8% (107/987) of donors and 284 (28.8%) had evidence of ongoing or past HBV infection. Hepatitis B surface antibody (anti-HBs) only was detected in 34 (3.4%) donors. Thus, 67.8% (669/987) of donors had no detectable HBV-markers indicating susceptibility to infection. The proportion of HBV-susceptible donors decreased from 70.9% (249/351) in donors aged < 25 years to 69.4% (334/481) in those aged 25-34 years and 55.5% (86/155) in donors aged > 34 years (P = 0.002). The high proportion of susceptible young adults in a community with a high HBsAg carrier rate could be the result of changing epidemiology of hepatitis B in Yemen. Consideration should therefore be given to immunizing young adults as an adjunct to the current expanded infant immunization programme.

**24) Title: Prevalence of Hepatitis C Virus Among Patients
 With Liver Disease In The Republic Of Yemen.**

Authors: Al- Moslih MI, Al-Huraibi MA.

Date: 2000

Source: East Mediterr Health J.2001 Jul-Sep: 7(4-5):771-8

Abstract

We investigated 143 patients with various classes of liver disease and 120 healthy subjects for serological markers of hepatitis C and B viruses. We found a prevalence rate of 37.1% of anti-HCV markers in patients with liver disease (cases), and 4.2% and in the control group. HBsAg was detected in 33.6% of cases and 13.3% of the controls. Anti-HCV and HBsAg were detected in 7.7% of cases but were not detected in the controls. Anti-HCV, HBsAg, anti-HBe and anti-HDV were detected in three patients. Serum protein electrophoresis results showed elevated gammaglobulin and low albumin in patients positive for anti-HCV who had liver disease.

25) Title: Seroprevalence Of Markers Of Viral Hepatitis In Yemeni Healthcare Workers.

Authors: Shidrawi R , Ali Al-Huraibi M, Ahmad Al-Haimi M, Dayton R, Murray-Lyon IM.

Date: 2003

Source: Med Virol J.2004 Aug; 73(4):562-5

Abstract

The seroprevalence of viral hepatitis in healthcare workers has important public health implications. To assess the risk factors for the acquisition of viral hepatitis in an unvaccinated cohort from an hyperendemic region, 567 healthcare workers from a large hospital in the capital of the Republic of Yemen were interviewed and tested for serological markers of infection with viral hepatitis. 54/543 (9.9%) tested positive for hepatitis B surface antigen (HBsAg), 174/543 (32.0%) had positive hepatitis B core antibodies (anti-HBc), and 19/546 (3.5%) had hepatitis C antibodies (anti-HCV). Age (OR = 1.04, 95% CI 1.02-1.06), male sex (OR = 2.0, 1.32-3.03), and occupation (healthcare workers not carrying out exposure prone procedures, OR = 1.61, 1.06-2.44) were found to be independent predictors for the likelihood of detecting either HBsAg or anti-HBc by multivariate logistic regression analysis. No independent risk factors for anti-HCV positive status were identified. Our findings support the adoption of universal HBV immunisation programmes and infection control precautions. The absence of known risk factors predicting anti-HCV positive serostatus suggests the main mode of transmission of hepatitis C in this cohort in the Yemen remains undiscovered. Copyright 2004 Wiley-Liss, Inc.

26) Title: A Study of 342 Oral Keratotic White Lesions Induced By Qat Chewing Among 2500 Yemeni.

Authors: Ali AA, Al-Sharabi AK, Aguirre JM, Nahas R.

Date: 2002

Source: Oral Pathol Med J. 2004 Jul; 33(6):468-72

Abstract

Background: Qat chewing is a common habit in Yemen. Various studies demonstrated clear effects of this habit on the systemic organs of the human body. The lack of studies, however, on the effects of this habit on oral mucosa was the major motive of this study.

Methods: This cross-sectional study was made on 2500 Yemeni citizens (mean age 27 years, 1818 males and 682 females). Clinical protocol was made for all cases with a full intraoral examination. A new grading system was applied for each case with oral white lesion.

Results: Of our sample, 1528 cases (61.12%) were qat chewers; of them, 342 cases (22.4%) had oral keratotic white lesions at the site of qat chewing, while only 6 (0.6%) non-chewer cases had white lesions in their oral cavity ($P < 0.000000$, Odds ratio = 46.43, RR = 36.26). According to our grading system; 14, 5.9 and 2.4% were grade I, II and III.

Conclusions: We conclude that qat chewing can provoke the development of oral keratotic white lesions at the site of chewing. The prevalence of these lesions and its severity increase as duration and frequency increase.

27) Title: Peritoneal Schistosomiasis : An Unusual Laparoscopic Finding

Authors: Spicher VM, Genin B, Jordan AR, Rubbia-Brandt L, and Le Coultre C.

Date: 2002

Source: Pediatr Surg J. 2004 Apr; 39(4):631-3

Abstract

Laparoscopic surgery is now a common procedure for the cure of appendicitis. Unexpected other laparoscopic findings can be a diagnostic challenge. The authors present a case in which, in addition to typical appendicitis, multiple whitish nodules were found diffusely on the peritoneal surfaces suggesting a differential diagnosis including miliary tuberculosis and carcinoma metastases. The final diagnosis of schistosomiasis, made by histology and serology, had not been suspected. This uncommon and rare presentation deserves to be reported, especially to physicians of nonendemic areas, in an era in which people travel extensively.

28) Title: African Links and Hepatitis B Virus Genotypes in the Republic Of Yemen.

Author: Sallam TA, William Tong CY.

Date: 2002

Source: Med Virol J.2004 May; 73(1):23-8

Abstract

Hepatitis B virus (HBV) genotypes in three different communities in the Republic of Yemen with and without significant African links were studied. The subjects included indigenous Yemeni blood donors (n = 987), Africans who had settled down in Yemen for several generations (n = 97) and Soqotrans living on an island in the Indian Ocean close to the African coast (n = 99). Phylogenetic analysis of HBV surface region sequences showed the presence of two major genotypes; A and D: sequences from the blood donors were all genotype D (17/17); those from Africans residing in Yemen were predominantly genotype D (7/8) although one sequence was genotype A; whereas a mixture of genotype A and D was found among the Soqotrans (5/8 and 3/8 respectively). Genotype A sequences were associated with higher viral load, but the difference was not statistically significant. Human migration and international travel, may lead to an interaction between HBV genotypes. The Republic of Yemen is at a location where genotypes A and D meet. The results from this study suggest that genotype A is found only in communities with continuing African links and that genotype D remains the dominant genotype in settled populations. More studies are needed to examine possible long-term changes in HBV genotypes in this region. Copyright 2004 Wiley-Liss, Inc.

**29) Title: Detection of antileishmanial IgG antibodies and
Leishmania-specific antigens in sera from Yemeni
patients with visceral leishmaniasis**

Authors: Azazy AA, Nasher ST, Ishaq A, Bin-Muhanna M, and Chance ML.

Date: 2002

Source: Ann trop Med Parasitol J.2003 Oct; 97(7); 689-95

Abstract

As part of an attempt to develop an effective method for the serodiagnosis of visceral leishmaniasis (VL), the sera from 43 Yemeni cases of the disease were screened both for antileishmanial IgG antibodies and for Leishmania-specific antigens. Indirect ELISA and capture ELISA were used to test each serum for the antibodies and antigens, respectively. Sera from patients with diseases other than leishmaniasis (29 for the antibody-detection assays and 42 for the antigen-detection) and from apparently healthy volunteers were also tested. For each type of assay, the threshold for seropositivity was set three standard deviations above the mean absorbance value for the sera from the healthy volunteers. Thirty-seven of the 43 VL sera were found positive for Leishmania-specific IgG antibodies and 37 were found positive for Leishmania-specific antigens. The sensitivities of the antibody- and antigen-detection assays were both therefore 86%. The overall specificity of the antibody-detection ELISA (67%) was, however, slightly higher than that of the capture-ELISA (64%).

**30) Title: Histopathological Differences in Oral Mucosa of
Chewing and Opposite Sides due to Takhzeen Al-
Qat**

Authors: A. k. Alsharbi, A. A. Ali, and N. A. Hassan

Date: 2004

**Source: Sana'a University J. for Medical Sciences. Vol. (1), issue (1), Jan-
June .2004**

Abstract

Objective: To determine the histopathology differences in biopsies taken from the Oral mucosa at the side of qat chewing and the opposite side.

Materials and Methods: This study was done on 40 biopsies taken from the oral mucosa at the chewing side n=20 (Group 1) and from the opposite side n=20 (Group 2). Biopsies were prepared and stained by the routine H & E method and then evaluated.

Results:-Acanthosis abnormal rate ridges. Inflammatory infiltration. Intracellular edema and keratosis (HK) were reported in 100%, 95%, 70%, and 50% of Gl. And in statistically were significant $p<0.002$.

Conclusion - Clear histopathology differences were found between chewing and opposite sides .All changes were innocuous as no atypia moderate or severe epithelial dysplasia found.

31) Title: Retrospective Descriptive Study of Yemeni Edentate Patients' Features and Their Needs for Prosthetic Treatment

Authors: Abd Al-Hadi LM and Abass H.

Date: 2004

Source: Sana'a University J. for Medical Sciences. Vol. (1), issue (2), Dec.2004

Abstract

A retrospective descriptive study of the features and needs of Yemeni edentate patients who attend prosthetic department were conducted. *The aims of this study* were to describe the characteristics and needs of Yemeni population seeking prosthetic treatment in the department of prosthetic dentistry.

Materials and methods: the data were collected after (1410) patients: pre-examination calibration was applied as standardization mean to reduce the bias due to categorical data identification and classification, Many numerical variables have been recorded using small slide caliper.

Results: Women formed 39.9% of the sample, periodontitis was the principal cause of teeth loss, and the mean of women's age was 53.3 years compared to 60 years for men. Complete dentures were the most prescribed type of prosthetic service followed by removable partial dentures and complete denture against partial one. The triangular face form was predominant in the sample. The prevalence of temporomandibular dysfunction in the sample was 0.4% square maxillary and mandibular arch forms were the most type found in the sample. Tuberosity morphology was mostly medium in nature: The obtuse soft palate formed the main type in the sample. Patients with normal salivary consistency constituted the major portion of the sample (73%), followed by watery (14%) and viscous consistency (12.9%) respectively. Patients with Normoglossia were 88.5% of the total sample composition followed by macroglossia and microglossia.

Conclusion: The results gave many starting points for the designing of ambitious preventive and prosthetic dental health plan that consider the characteristics and the needs of the population involved.

32) Title: Prevalence of Hepatitis B Surface Antigen, Hepatitis C Antibody and HIV Virus among Blood Donors at Al-Thawra Hospital, Sana'a 2004

Authors: Abdul El-Rab A., Alkobati F., Mohammad Y. A-K, Al-Shibany S., Sallem A. K., and Morish M.

Date: 2004

Source: Sana'a University J. for Medical Sciences. Vol. (1), issue (2), Dec.2004

Abstract

The prevalence of viral hepatitis in Yemen is reported to be high particularly hepatitis B virus. This study was taken to record the prevalence of hepatitis B surface antigen, hepatitis C antibody and HIV among blood donors in Sana'a using highly sensitive and specific tests . One thousand five hundred and forty Yemeni blood donors were included in these screening blood tests during January through June 2003. Prevalence rates of HBV. HCV and HIV-I were 4.58% , 1.56% ,and 0.69% respectively. There was a consistent increase of HBV in this country which could be more important than vertical transmission. The difference between this result and previous studies were discussed. In the light of this result immunization program against HBV in the country needs to be reviewed. Also extensive recruitment of young donors should help ensure along term increase in the blood supply.

33) Title: A Histopathological Investigation of the Effect of Long-Term Feeding Catha Edulis Leaves in Animals

Authors: A. Al-Aghbari, A. Al-T Hobhani, M. Al-Mamary, M. Al-Habori, and M. Baker.

Date: 2003

Source: Sana'a University J. for Medical Sciences. Vol. (1), issue (1), Jan-June .2004

Abstract

The toxicological effects of feeding varying levels of Catha edulis leaves to rabbits for six months were examined on the histopathology of tissue section of the kidneys, spleen, various parts of the gastrointestinal tract, testis, uterus and ovaries. The data presented demonstrate regular spermatogenesis with all levels of Catha edulis leaves tested as evident by the presence of primary, secondary germcells, spermatidis and spermatozoa in the normal sized somniferous tubules , with no effect on both leyding and sertoli cells .The Histopathological results also suggest the lack of involvement of Catha edulis leaves with the reported association with the regular thickness of the squamous epithelial mucosa with observed incidence of esophageal cancer as evident by marked parakeratosis and normal submucosal layer of the esophagus The regular architecture of the glands of the gastric mucosa as well as normal submucosa and muscularis suggest the lack of involvement with gastric ulcers . Moreover, the appearance of normal regular array size and shape of villi may effect of Catha edulis on the absorptive surface area but more likely to be related to the impairment of macronutrient utilization by forming tannin-protein complexes with various digestive enzymes.

34) Title: A Preliminary Study of Pharmacognostical and Photochemical Constituents of Azadirachta Indica

Authors: Ghaleb Awadh Bafana and Hussein Ahmed Bakathir

Date: 2000

Source: Yemeni J. of Medical and health Research Vol (1).No(1) ;May 2002

Abstract

The traditional uses of many plants are taken up again by many developed countries because of its values verified by scientific method. the photochemical and pharmacognostical constituents of AZADIRACHTA INDICA (NEEM) used in traditional medicine shows high values for treatment of malaria blood sugar , anti-inflammatory , anti-pyretic, anti-bacterial agent . Scientific research has proved the importance traditional medicine as a main source of treatment of minor ailment in developing countries.

35) Title: Superficial Cutaneous Fungal Infection: Clinical Epidemiological Patterns

Author: Latifa Sharaf Hamid

Date: 2000

Source: Yemeni J. of Med, and Health Res Vol.(2), No(1) ,May 2003

Abstract

Objective: To study **1.** The distribution of skin superficial mycosis infection according to age, sex, and seasonal prevalence; **2.** the frequency of different clinical pattern seen in practice .

Methods: An epidemiological retrospective work based on the study of patients attending Al-Gamhouria Hospital, Aden. Dept-of dermatology-outpatient clinic within one year period from 1st January 2000-31st December 2000. 505 case were collected diagnoses was established depended on clinical examination of lesion and confirmed by microscopically examination with potassium hydroxide test of scraped scales from lesion .

Results: It is found that the adult age group was affected more than the children and adolescent age group patients (63.6%, 36.4%) respectively, with slight increase among male. (54.5%), than female patients (45%.5%). The frequency o clinical pattern, in order, were Dermatophytic (51.5%). Yeast (48.5%) ,and mold (0%) The most prevalent superficial cutaneous fungal infection found in the study was *Pityriasis versicolor* (39.2%). followed by *Tinea cruris* (15.4%) both of which with male predominance. *T.pedis* (13.3%) with female predominance, *T.corporis* (12.1%) coetaneous candidiasis (9.3%), *T.capitis* (6.9%), *T.manuum* (3.8%).

It has been found that superficial cutaneous fungal infection was prevalent throughout the year and reaches its peak incidence during summer months. (July, August , September).

Conclusion: Superficial coetaneous fungal infection is a common skin infection in our daily practice and prevalent throughout the year, *P.versicolor* was the commonest infection, *T. cruris* the second common infection and the first dermatophytic infection.

36) Title: The Current Nutritional Status among Pregnant and Locating Women in the Capital's Secretariat, Republic of Yemen

Author: Hamood K. Al-Makhlafi

Date: 2004

Source: Aden J. of Natural and Applied Sciences Vol.5 No.1 March 2001

Abstract

A survey concerning the nutrition status of 125 pregnant and lactating women in the Capital's secretariat has been conducted. Subjects were interviewed using al-ready designed questionnaire that included several question along with the question about the quantities and type of foods consumed during the past 24 hours .The lated using food composition tables , the obtained results were compared to the recommended daily allowance (RDA) of pregnant and lactating women.

The results have shown that the amounts of energy available make only 73 and 66% of the lactating and pregnant women's RDA respectively, Grain's contribution to the lactating and pregnant women's total available energy was 59 and 60% respectively.

Though the lactating women's obtained 110% of her protein RDA, the pregnant women got only 76% of her protein RDA, Animal protein consumed by pregnant and lactating women constitutes only 16 and 22 g/day respectively and it's contribution to their available total protein was only 29 and 31%.

The calculated deficiencies of several minerals and vitamins ranged from 16 to 71& of the RDA. Finally, it has been found that education; income social and personal traditions as well as other factors were behind the resulted nutrients deficiencies in the diets of pregnant and lactating women.

37) Title: Effect of Catha Edulis on Calcium Metabolism During the Second Trimester of Pregnancy

Authors: Ba-Nafe AM. , Algieri A G., and Al-Obeidi AM.

Date: 2003

Source: Sana'a University J. for medical science. Vol. (1), issue (2) Dec. 2004

Abstract

This study was conducted to determine the serum constituents related to calcium metabolism in (regular qat chewers) healthy Yemeni pregnant women as compared to the non-qat chewers in the second trimester of pregnancy. Sixty pregnant women were randomly selected. Their age ranged from 20-45 years old. The subjects were divided into two groups, each with thirty subjects. Group I was the qat chewers and group II was the non-qat chewers. Blood samples were analyzed for serum calcium, inorganic phosphorus, total protein, albumin, parathyroid hormones, 25-OH vitamin D3 and serum calcitonin levels. The results did not show any significant differences due to qat chewing on total, ionized, or de-ionized serum calcium, total serum proteins, albumin, inorganic phosphorous, parathyroid hormone, calcitonin and 25-OH-bitamin D3. The results of this study strongly suggest that both control and study groups were suffering from low blood calcium due to very low levels of serum 23-OH vitamins D3, which was decreased by 54.53% in qat chewing group. Furthermore, 71.47% of qat chewer group and 60.74% of control group had less than 10 nmol/L of 25-OH-vitamin D3 which may result from the low exposure to ultraviolet light, which is a very important step in the biosynthesis of 1,25-(OH)₂-vitamin D3. Consequently, both the control and the study groups were at high risk of vitamin D3 deficiency, putting them at risk of osteomalacia and their children at risk of vitamin D3 deficiency related problems.

38) Title: Prevalence of Prenatal Hepatitis B in Aden Governorate Public Health Institutions (2000-2001)

Authors: Khalida Anwer Yousef and Mohammad abdualla Aklan

Date: 2001

Source: Science conference, Sana'a – (11-13) October 2001

Abstract

Hepatitis B virus infections is a major health problem in Yemen. According to the published studies by el-Guneid Am et al (1993) and Ahmed Al-Hadad et al (1993). Yemen is considered as a high endemic area according to WHO classification.

Perinatal transmission of hepatitis B virus is the most important factor contributing to the high carrier rate of HBsAg such as in Asia (WHO).

In this study we determine the prevalence of HBsAg in pregnant women attending the major public hospitals and the Reproductive health and Family planning Center in Aden. 426 pregnant women were tested for HBsAg 12 of them (2.8%) were founded to be positive. they were from different districts. In regard to possible risk factors in these HBsAg positive women such as : age , residency , parity , receiving antenatal care , past history of operation , blood transfusion, hepatitis and husband's hepatitis , it was found that history of hepatitis in husband ha significant association with the result of HBsAg test ($P < 0.05$) , with 10 times the risk of positive test among mothers with positive husband history compared with those of negative husband history (odds ratio (OR) , 10.15 ; confidence interval (CI 95,1.3-63.27).

Our study results indicate an intermediate level risk of perinatal hepatitis B virus infection and that some geographic areas in the country may be at high risk and a universal active vaccination against hepatitis B to target the new born populations is suggested.

39) Title: Prevalence of Dermatomycoses in Sana'a City, Yemen

Author: Saeed M.S. Alghalibi

Date: 2002

Source: Science conference, Taiz – (11-13) October 2002

Abstract

A total of 720 clinically suspected cases of Dermatomycoses were examined for causative fungi during January 2001 to March 2002 . The collected specimens were examined by direct microscopy and culture. Mycotic infection was demonstrable by microscopy and culture in 650 (90.3%) cases . Tinea capitis was the most common superficial mycotic infection (44.6%) , followed by tinea corporis (20%) , tinea pedis (14.2%) , tinea unguium (12.3%) , tinea manuum (7.1%), tinea cruris (1.5%) and tinea barbae (0.3%) . The number of infection varied with the seasons. Males were more commonly affected by dermatophytoses than females (60.6% versus 39.4% of positive cases) . most of the patients were within age group 1-9 years old (40.2%) children were mainly infected with tinea capitis and tinea corporis , while adults were infected with tinea pedis, tinea unguium , tinea barbae and tinea cruris , *Micorsproum canis* was the most frequent causative agent (38.7%) , followed by *Trichophyton mentagrophytes* (16.3%) , *M. gypseum* (15.7%) , *T. verrucosum* (10.3%) , *T. rubrum* (6.5%) , *T. violaceum* (6.5%) , *Epiermophyton floccosum* (4%) , *T. schoenleinii* (1.7%) and *T. soudanense*(0.3%) .

40) Title: Tuberculosis in Hadhramout Province

Authors: H. P. Ali and B. O. Haron

Date: 2001

Source: Science conference, Taiz – (11-13) October 2002

Abstract

Tuberculosis cases in Hadhramout province during the years 1992-2001 have been studied with regard to age, sex distribution, cause of the disease and preventive control measures.

Cases that responded positively to the therapy were studied. It was revealed that all age groups were susceptible with equal percentage and high percentage of recovers was also observed.

A number of suggestions were made to control and eradicates this devastating disease.

41) Title: Visceral Leishmaniasis in Taiz-Yemen

Author: Hamood Rajeh

Date: 2000

Source: The 13th congress of the Union of the Arab Pediatric Societies.

Abstract

Visceral leishmaniasis is widely distributed in the Middle East. Few cases are documented from Yemen. This study of 104 patients admitted to the pediatric ward Al_Gomhory hospital over the period 1993-1999. The majority of the cases were below four years (58.69%). Main clinical features were prolonged fever, anemia, weight loss and hepatosplenomegaly. Only two patients from 82, to whom bone marrow aspiration was performed, were negative. Also in two patients serology test (I.H.A) was negative (less than 1/64). Four were readmitted as relapsed cases and four (3.8%) died from secondary complications.

42) Title: Dyserythropoiesis in Pediatric Visceral Leishmaniasis in Yemen

Authors: Ghada Awad Gobah and Gamal Abdul Hamid

Date: 2005

Source: The 13th congress of the Union of the Arab Pediatric Societies

Abstract

Objectives: The aim of this study was to evaluate the Erythroid changes in children suffering of visceral leishmaniasis "positive amastigot in bone marrow"

Material and Method: This study carried out in AL-Gamhoria Teaching Hospital from 1st January to 31st December 2005. We study bone marrow cytology of 40 cases of pediatric visceral leishmaniasis.

Results: The bone marrow was hypercellular and showed erythroid hyperplasia. A high proportion of erythroblasts showed dyserythropoietic changes. 87.5% showed dyserythropoiesis more than the normal range (2-7). And 12.5% had dyserythropoiesis within normal range. The most common erythroblast abnormalities were irregularly shaped nuclei or Karyorrhexis, nuclear budding and binuclearity, and frank type dyserythropoiesis. Most of these cases showed an extremely low degree of marrow parasitemia.

Conclusion: 1. Dyserythropoiesis is common and guided finding on visceral leishmania in pediatric 2. There is a direct positive correlation between frank nuclear dyserythropoiesis and degree marrow parasitemia.

43) Title: Pancytopenia in Children

Authors: Safa Abdul Rhaman Shukry and Gamal Abdul Hamid

Date: 2005

Source: The 13th congress of the Union of the Arab Pediatric Societies

Abstract

Objectives: The aim of the study was to evaluate the clinico-hematological changes of varying degree of pancytopenia in children upto 15 years of age.

Material and Methods: This study carried out in Al-Gamhoria Teaching Hospital from 1st January to 31st December 2005. We analysis 28 children who presented with pancytopenia were the criteria for diagnosis of pancytopenia was: hemoglobin 11g/dl. Total leukocytes count less than 4000/cumm and platelet count less than 150.000/cumm. Bone marrow aspiration/biopsy was examined by using Jamshidi needles from posterior iliac crest.

Results: The various clinical presentation were Fever (96.3%), pallor and splenomegaly (88.9), hepatomegaly (63.0%), loss of weight (59.3%), signs of bleeding (50%), Fatigue (40.7%), and lymph node enlargement (18.5%), bone pain were present in 14.3%, gum hypertrophy, oral ulcer, dizziness and night sweat present in 11.1%. The most common etiology of pancytopenia was visceral leishmaniasis 50.0%, malaria for 14.3%, visceral leishmaniasis and malaria together were 10.7%, acute leukemia, aplastic anemia, and hypersplenism were 7.1%, and post viral infection [Hypoplastic anemia] was 3.6%.

Conclusion: Visceral leishmaniasis and malaria are the most common causes of pancytopenia in children. Bone marrow examination is strongly mandatory diagnosis of pancytopenia. Focusing on detection of pancytopenia cause help in prepare treatment of pancytopenia.

44) Title: Visceral Leishmaniasis among Yemeni Children in Al-Salam Hospital Patients at Sadah

Authors: AL- Khorasani Ahmed, AL- Shafiey Ali Mansor , AL- Iriani Ali Fadel

Date: 2005

Source: The 13th congress of the Union of the Arab Pediatric Societies

Abstract

Background: Visceral Leishmaniasis is a killing disease but treatable. It is caused by infection of the visceral reticuloendothelial system by Leishmania species, acquired from sandfly bite. This disease is endemic in 88 countries and over 90% of worldwide cases are in Bangladesh, Bihar State, Nepal and Sudan. In Bihar State in northeastern India with 83 million residents, 200,000 deaths from visceral Leishmaniasis occur each year. In our country no reliable statistical data show the value of the disease. Therefore, this study will highlight from the point of view of epidemiological, clinical, diagnostic to outcome of treatment aspects.

Methods: The study was prospective in which 150 patients from 10 months to 12 years of age were subjected to full history, physical examination. Laboratory investigations in the form of complete blood count, suckling test, Malaria smear, total protein, Serum albumin, formal gel test splenic or bone marrow aspiration were done. Widol and brucella tests have been done to exclude typhoid and brucellosis.

Results: All patients included in this study were well-matched in terms of age, Weight, Height, Parasitological grade of splenic or bone marrow aspiration and splenomegaly. Parasite was identified in all patients including in this study and formal gel test showed a significant value. The disease presents with fever, severe cachexia, hepatosplenomegaly (splenomegaly usually predominates),

Conclusions: This study proves that the disease spread over many places in our country, the disease is treatable in early stage and difficult in late stage. The formal gel test is a simple test and can be considered a primary clue for diagnosis in areas.

45) Title: Malaria among Feverish Patient in the Main Hospitals of Sana'a City

Supervisor: Prof. Ali al-Sabri

**Authors: Bander Thabet Assabri, Sadeq Mohamme Abdalhamed ,
Mohammad Qasem Hutif, Taha Mohammad Al-Kahom ,
Fuad Mohammad Handel, Kalid Ahmed Mahde, Faruq
Abdullah Al-Sabri , Alihade Al-Ashwal, Abdualmajed
Andullah Habah , and Yahya Hossen Mobark**

Date: 2004

**Source: The 17th scientific Conference for Graduation Researches
Sana'a University April 2006**

Abstract

Malaria is the most morbidity and mortality all over the world. It has a big impact on the individuals and society in many countries including Yemen. And due to the serious complications caused by this disease, it was necessary for all efforts to be cooperated in order to achieve best possible outcomes towards a free of Malaria society. In doing so, this research we attended to answer the common question about what is Malaria spread rate among individuals who are affected of fever? And was Malaria the main reason for fever or were there another reasons? Sana'a was the case study where this research is applied in the period between 1/8/2004 until 30/9/2004.

Aim of Study: This study aims to determine cases of Malaria investigated in good laboratories (slides seen) among individuals affected of fever and who frequently attended to the main public hospitals in the capital secretariat.

Methodology: Descriptive method was undertaken on the cases came to these hospitals and they were affected of fever for whatsoever reason, either these cases were in the emergency department or at the external clinics. A separate questionnaire was made for each case of fever. All slides taken from the above said hospitals were reinvestigated in the national center for fighting Malaria. 473 fever cases were collected.

Discussed Results: Distribution was equal in the four public hospitals (Al-Kuwait, Al- Thawra, Al Gamhoury, Al-Sabeen). However, the great deal of cooperation was given by Kuwait hospital which enabled us to collect maximum number of cases and making necessary tests. 20 cases were positive with ratio of 4.23

46) Title: Clinical Pattern And Complications Of Flaciparum Malaria Among Children Admitted Atal-Waha Tea Ching Hospital

Author: Amani Abdulla Nasser "Amber"

Date: 2004

Source: Faculty of Medicine and Health Sciences, Aden University

Abstract

Flaciparum malaria represents the most serious form of the malaria illness , it is commonly associated with multiple and life threatening complications and higher fatality rate , especially , in young children (4.,6,30) . the disease is particularly common in the tropics as it is in Yemen , (1,47) .

This prospective study was conducted among children admitted with Flaciparum malaria at Al-Wahda teaching hospital during the period 1st Sept 2002-28th Feb 2003 to identify the magnitude and to illustrate clinical aspects and severity of the disease. During the study period 162 patients with Flaciparum malaria were admitted representing 10.6% of the total pediatric admission .

Males were affected more than females (58.6% Vs 41.4%) and the majority of patients were under 5 years of age (74.1%) .

Eighty (49.4 %) patients were from Aden and 82 (50.6%) referred from other governorates . the main presenting symptoms were fever (100%) , vomiting (61.1%) diarrhea (36.4%), chills (28.4%) and sweating (33.5%) . pallor (92.9%) ,splenomegaly (61.1%) and hepaomegaly (48.8%) were the common physical findings low family income (92.6%) , bad housing (41.4%) and overcrowding (62.3%) were common associations . the most recognized complications were anemia (87%) pneumonia (14.8%) dehydration (13%) , febrile convulsion (12.3%) , hypoglycemia (9.9%) and cerebral malaria (7.4). the majority of the patients were treated with quinine (82.7%) on the basis of severity and presence of complications or non responsiveness to prior chloroquine courses and 26(16%) patients were treated successfully with chloroquine.

Blood transfusion was given for 48(29.6%) patients . the case fatality rate was (4.9%) . most of the deaths (62.5%) were under 5 years of age and cerebral malaria was the most common cause of death (62.5%). It could be concluded from this study that , Flaciparum malaria is a common cause of admission affecting g mostly children < 5 year of age and those from the poor socioeconomic group . it is commonly associated with multiple and serious complications and may lead to fatal outcome . therefore , active preventive measures along with early and proper treatment are highly recommended to reduce its morbidity in children .

47) Title: Malaria in late pregnancy in Al Hodeidah Governorate, Yemen.

Authors: Bassiouny HK, Al-Maktari MT.

Date: 2005

Source: East Mediterr Health J. 2005 Jul; 11(4):680-9.

Abstract

To investigate the consequences of maternal malaria during late pregnancy, we conducted a preliminary study in the 2 hospitals in Al Hodeidah on 276 women who had uncomplicated vaginal deliveries. Only 17 women had malaria (*Plasmodium falciparum*), 6 with peripheral parasitaemia and 11 with both peripheral parasitaemia and placental malaria. Coincident infection carried a 9.44 times higher risk of preterm delivery and a 12.2 times greater risk of low birth weight (< 2500 g). Anaemia was diagnosed in 46.4%, associated with malaria in 11.7% of cases. All risk factors, rural residence (OR 5.18), maternal age < 20 years (OR 4.93) and primigravidae (OR 8.29), were significantly associated with malaria infection.



Drugs

1) Title: Effect of Gentamicin on Serum Digoxin Level in Patients with Congestive Heart Failure

Authors: Alkadi HO, Nooman MA, Raja'a YA

Date: 2003

Source: Pharm world Sci: 2004 Apr; 26 (2): 107-9

Abstract

Objective: Gentamicin is frequently used to treat infectious diseases in patients receiving digitalis therapy. The aim of this study is to evaluate the effect of gentamicin on serum digoxin level.

Method: Twenty-four diabetic patients and patients with congestive heart failure and twelve normal healthy volunteers were enrolled in this study. The patients received digoxin treatment 0.25 mg/day. Gentamicin in a dose of 80 mg i.m. twice a day for 7 days was prescribed for these patients to treat chest infection. Serum digoxin and creatinine levels were determined before and after gentamicin administration.

Results: Gentamicin induced a significant increase in serum digoxin level of diabetic patients and patients with congestive heart failure. Serum creatinine level increased significantly before and after i.m. injection of gentamicin.

Conclusion: The present study indicated that increase serum digoxin level when combined with gentamicin should be considered a risk factor for digitalis toxicity.

**2) Title: Prevalence Of Subgingival Bacteria Resistant To
Ami Nopenicillins And Metronidazole In Dental
Patients From Yemen And Norway**

Author: Al-Haroni MH, Skaug N, Al-Hebshi NN.

Date: 2005

Source: Int Antimicrob Agents J.2006 mar;27(3):217;Epub 2006 Feb 3

Abstract

The purpose of this study was to assess the prevalence of resistance to aminopenicillins and metronidazole among selected subgingival species in dental patients from Yemen and Norway. Three subgingival samples were collected by paper points from each of 34 Yemeni and 21 Norwegian adult volunteers and then pooled. Each of the 55 pooled samples was plated on fastidious anaerobic blood agar containing 2 microg/mL ampicillin or metronidazole, or no antimicrobial. Species identification of growth was done using DNA-DNA checkerboard hybridisation. The overall proportion of ampicillin resistance among the 18 identified species was 28.9% and 7.9% in the Yemeni and Norwegian samples, respectively, whereas for metronidazole it was 60.3% and 11.3%. The number of species resistant to ampicillin and metronidazole was significantly higher ($P < 0.016$ and $P = 0.0000$, respectively) in the Yemeni than in the Norwegian samples.

3) Title: Bioactive Saponins from Astragalus Suberi I. Growing in Yemen

Author: Abbas F, Zayed R.

Date: 2004

Source: Z Naturforsch [c].2005 Nov-Dec; 60(11-12):813-20

Abstract

From the aerial parts of *Astragalus suberi* L., Fabaceae, seven saponins were isolated. Based on spectral data (IR, ¹H and ¹³C NMR and HR-FABMS), the structures were established as 3-O-(beta-D-glucopyranosyl)-soyasapogenol B (1); 3-O-(beta-D-glucuronopyranosyl)-soyasapogenol B (2); 3-O-[beta-D-galactopyranosyl (1-->2)-beta-D-glucopyranosyl]-soyasapogenol B (3); 3-O-[alpha-L-rhamnopyranosyl (1-->2)-beta-D-galactopyranosyl (1-->2)-beta-D-glucopyranosyl]-soyasapogenol B (4); 3-O-[beta-L-rhamnopyranosyl (1-->2)-beta-D-galactopyranosyl (1-->2)-beta-D-glucopyranosyl]-11-hydroxy-soyasapogenol B (5); 3-O-[alpha-L-rhamnopyranosyl (1-->2)-beta-D-galactopyranosyl (1-->2)-beta-D-glucuronopyranosyl]-soyasapogenol B (6) and 3-O-[alpha-L-rhamnopyranosyl (1-->2)-beta-D-galactopyranosyl (1-->2)-beta-D-glucuronopyranosyl]-complogenin (7). The isolated saponins exhibited antibacterial activities against Gram-positive and Gram-negative bacteria with minimum inhibitory concentration values >100 microg/ml, antifungal activity against all the strains tested with minimum fungicidal concentration values between 25 and 50 microg/ml and inhibited the growth of Hep-2 (human carcinoma of larynx), with IC₅₀ values between 50 microg/ml (compounds 5-7) and 100 microg/ml (compounds 1-4), and Hela (human carcinoma of cervix) cell lines in culture with different IC₅₀ values [74 (compound 7), 98 (compound 5) and 180 microg/ml (compounds 1-4 and 6)].

4) Title: Cyclosporine Monotherapy for Severe Aplastic Anemia: A Developing Country Experience

Author: Al-Ghazaly J, Al-Dubai W, Al-Jahafi AK, Abdullah M, Al-Hashdi A .

Date: 2004

Source: Ann Saudi Med J.2005 Sep-Oct; 25(5):375-9

Abstract

Background: Immunosuppression is the most effective treatment for aplastic anemia after hematopoietic stem cell transplantation. Although the combination of cyclosporine and antithymocyte globulin (ATG) is superior to either agent alone, cyclosporine monotherapy is an easily available, safe and cheap immunosuppressive therapy (IST) option. These advantages are particularly valuable in developing countries where ATG is frequently not available.

Patients And Methods: In the referral hematology center in Yemen, 20 patients (16 males and 4 females) with severe aplastic anemia (SAA) were prospectively identified and managed with cyclosporine monotherapy during the period between April 2001 and November 2004.

Results: Data from 14 patients who received cyclosporine for at least 3 months were analyzed. At 6 months, 2 (14.3%) patients achieved complete remission (CR) and 5 (35.7%) patients achieved partial remission (PR) and at 1 year, 4 (28.6%) patients achieved CR and 3 (21.4%) patients remained in PR. The overall response rate was 50% and the cumulative survival rate at 1 year was 78.6%. The median time to remission was 120 days (range, 46 to 131 days). Side effects were modest and easily monitored.

Conclusion: Our results support findings that cyclosporine monotherapy is an effective and safe immunosuppressive therapy for SAA, and that it could be a reasonable IST option for patients in developing countries.

**5) Title: Antimicrobial, Cytotoxic and Antioxidant Activity of
 Selected Basidiomycetes From Yemen**

Author: Al-Fatim i M, Wurster M, Kreisel H, Lindequist U.

Date: 2004

Source: Pahramzic J.2005 Oct;60(10):776-80

Abstract

Dichloromethane, methanol and aqueous extracts of 23 selected Basidiomycetes species fruiting bodies collected in Yemen were screened in vitro for their antibacterial activities against three Gram-positive bacteria (*Staphylococcus aureus*, *Bacillus subtilis*, *Micrococcus flavus*), two Gram-negative bacteria (*Escherichia coli*, *Pseudomonas aeruginosa*) and against one yeast fungus (*Candida maltosa*), as well as for their cytotoxic and antioxidant activity. The highest antibacterial activity was shown by extracts from *Agaricus* sp. (Type 1), *Coriolopsis caperata*, *Ganoderma colossus*, *Ganoderma resinaceum*, *Phellorinia herculea* and *Tulostoma obesum*. Strong antioxidative effects employing the DPPH assay were exhibited by methanol extracts from *Ganoderma resinaceum*, *Inonotus ochroporus*, *Phellinus rimosus* and *Phellorinia herculea*. The results provide evidence that some of the studied fungi might be potential sources for new biologically active agents.

6) Title: The Quality of Antimalarials Available in Yemen

Authors: Ab do-Rabbo A, Bassili A, Atta H.

Date: 2004

Source: Malar J.2005 Jun 29 ;(4):28

Abstract

Background : Malaria has always been a major public health problem in Yemen. Several studies in developing countries have demonstrated ineffective and poor quality drugs including antimalarials. Therefore, quality assessment of antimalarial drugs is of crucial importance. This study aimed to assess the quality of antimalarials (chloroquine and sulfadoxine/pyrimethamine) available in Yemen and to determine whether the quality of these products was related to the level of the distribution chain at which the samples were collected or related to the manufacturers.

Methods: Four samples from each antimalarial product were collected from each of the various levels of the distribution chain. One sample was kept with the research team. Two were tested at Sana'a and Aden Drug Quality Control Laboratories. The fourth was sent to the Centre for Quality Assurance of Medicines in Potchefstroom, South Africa, for analysis. Quality indicators measured were the content of the active ingredient and dissolution rate (for tablets only) in comparison to standard specifications for these products in the relevant pharmacopoeia.

Results: The results identified several problems of sub-standard products within the drug distribution chain. They included high and low failures in ingredient content for chloroquine tablets and chloroquine syrup. There was some dissolution failure for chloroquine tablets, and high sulfadoxine/pyrimethamine tablets dissolution failures. Failures with the dissolution of the pyrimethamine were found at most of the collection points. No clear relationship neither between the quality products and the level of the distribution chain, nor between locally manufactured and imported products was observed.

Conclusion: There are sub-standard antimalarial products circulating within the drug distribution chains in the country, which will have serious implications on the reduced therapeutic effectiveness and on the development of drug resistance.

This appears to be due to non-compliance with Good Manufacturing Practice guidelines by manufacturers in the production of the antimalarials.

7) Title: Khat Chewing and Arterial Blood Pressure. A Randomized Controlled Clinical Trial of Alpha-1 and Selective beta-1 Adrenoceptor Blockade

Authors: Hassan NA, Gunaid AA, El-Khally FM, Al-Noami MY, Murray-Lyon IM.

Date: 2003

Source: Saudi Med J.2005 Apr;26(4):537-541

Abstract

Objective: The aim of this work was to study prospectively the effect of alpha-1 and selective beta-1 adrenoceptor blockade on cardiovascular effects of khat chewing in healthy volunteers.

Methods: Sixty-three male volunteers chewed khat for 3 hours on 3 separate occasions, 1 or 2 weeks apart. Fifty age and weight matched male controls did not chew. The khat chewers received in a double blind 3-arm crossover design either indoramin 25mg, atenolol 50mg or placebo one hour before starting to chew. The non-chewing controls received atenolol 50mg on a separate occasion. Pulse and blood pressure were measured at regular intervals before, during and after the chewing period. The study was carried out in Sana'a, Yemen between December 2001 and November 2003.

Results: Khat chewers in the atenolol treated group had significantly lower readings for systolic blood pressure (SBP) and pulse rate one, 2 and 3 hours after starting to chew than khat chewers pre-treated with placebo or indoramin and comparable to non-khat chewers. Three hour SPB readings in khat chewers with placebo, with atenolol and with indoramin (mean values [95% confidence interval]) were 123 (120.2-125.7), 115.7 (113.0-118.4), and 119.8 (116.9-122.8) ($p < 0.0001$). Blood pressure and pulse rate were not altered in non-khat chewers taking 50mg atenolol. Diastolic blood pressure during khat chewing rose in the atenolol, indoramin and placebo groups.

Conclusion: The effect of khat chewing on systolic blood pressure and pulse rate is blocked by atenolol but not by indoramin. Beta-1 adrenoceptors are probably important in mediating the cardiovascular effects of khat in man.

8) Title: Cytotoxicity of plants used in traditional medicine in Yemen

Authors: Al-Fatimi M, Friedrich U, Jenett-Siems K.

Date: 2004

Source: *Fistierapia* 2005 Jun; 76(3-4):355-8

Abstract

Twenty-five extracts obtained from 14 plant species used in the traditional medicine in Yemen have been screened for cytotoxic activity against human ECV-304 cells. Extracts of *Dracaena cinnabari*, *Eucalyptus camaldulensis*, *Euclea divinorum*, *Euphorbia cactus*, *Pulicaria crispa*, and *Withania somnifera* displayed a remarkable activity.

9) Title: Knowledge , Attitudes and Practice of Drug Dispensers about Benzodiazepines in Private Pharmacies of Sana'a

Supervisor: Prof. Ali Al-Sabri

Authors: Wa'el Abdu Thabit al-absi , Mohammed Ahmed Al-Mansour, Ali Abd Rabbuh al-Sayad, Majed Yehya Najad, Najeeb Mus'ed Saleh , Fuad Muhsen Shamsan, Ali Abdulhai Abu-Lebdah, Abdulghani Aljaboubi, and Gannaf Mohammed Darnah

Date: 2005

Source: The 17th Scientific Conference For Graduation Researches Sana'a University, April 2006

Abstract

A descriptive KAP study was done to assess knowledge, attitudes and practice of dispensers about benzodiazepines in private pharmacies of Sana'a. A questionnaire was prepared for that purpose and distributed to 100 dispensers in Sana'a by stratified random sampling. It was found that 12% of them were not having medical or pharmaceutical qualifications. Overall levels of knowledge, about the issue addressed in this study, were weak and not adequate. Although positive attitudes towards benzodiazepines handling and dispensing were reported in more than 90% of them, malpractice was also experienced, as 56% of them dispense these drugs without prescription. This malpractice was experienced clearly in those with low knowledge, those having diploma in pharmacy and those without medical or pharmaceutical qualifications. The study recommends that doctors and nurses must be involved in subsequent studies. And also, it recommends that Ministry of Health must works to increase health education of the community about these drugs and regular supervision and control on its legitimate dispensing.

10) Title: Oxytocin And Misoprostol For Induction Of Labor In Term Pregnancies: Efficacy And Safety Al-Wahda Teaching Hospital

Author: Entesar Mohammed Abdullah

Date: 2004

Source: Faculty of Medicine and Health Sciences, Aden University

Abstract

Induction of labor remains a significant problem in obstetrics , and obstetricians routinely use various mechanical methods and pharmacological agents to induce it; however , no single approach has been universally successful . Therefore , we decided to do this study in Al-Wahda Teaching Hospital to compare and assess the efficacy and safety of the commonly used method (oxytocin) and the newly used one (prostaglandin . E1 analog Misoprostol). We evaluated 144 subjects with clear indications for labor induction , randomized by the restricted randomization method 72 received 25ug vaginally administered Misoprostol every 4 hours to a maximum of six doses as needed and 72 received continuous intravenous oxytocin infusions according to a fixed incremental schedule . Vaginal delivery within 24 hours is the primary outcome. We found that the time required to achieve active contraction was significantly shorter in the oxytocin group (109 + 65.9 minute versus 105 + 60.2 minutes) in multiparous. The average interval from start of induction to vaginal delivery in promiparous was not statistically significantly different between the two treatment groups ($P>0.05$) , similarly no difference obtained in multiparous . In addition, no significant difference found among maternal age groups. There was a highly significant reduction in the time required for vaginal delivery in the oxytocin –treated gestations of more than 41 weeks. Approximately three-quarters of the subjects delivered successfully virginally within 24 hours under both types of treatment; in the same time failure rate was not significantly different in the two methods. The cesarean delivery rate was similar in the two methods, though there was reduction in cesarean delivery for failure in the second stage in the Misoprostol group . There were no significant differences in the occurrence of maternal complications, with uterine tachy-systole and postpartum hemorrhage being the most common. Similarly, there were no significant differences in neonatal complications, birth weight, Meconium passage or admission to the neonatal intensive care unit. There was a significant difference in the Apgar score in the first minute but in the fifth minute, most

of the babies were doing well . There was a significantly high preference to Misoprostol as an additive agent . We conclude that Misoprostol is an effective and safe alternative to oxytocin infusion for labor induction in term pregnancies with favorable

cervices. We recommended encouraging the judicious use of Misoprostol for labor induction and 25ug to be the initial dose. In addition, we recommended Continuous monitoring of fetal heart and uterine activity to avoid complication both for the mother and for the newborn.

11) Title: Chloroquine-resistant Plasmodium falciparum local strain in Taiz Governorate, Republic of Yemen

Authors : Alkadi HO, Al-Maktari MT, Nooman MA.

Date: 2005

Source: Chemotherapy. 2006; 52(4):166-70. Epub 2006 May 24.

Abstract

Background: The emergence of Plasmodium falciparum resistance to widely used antimalarial drugs such as chloroquine has made malaria control and treatment much more difficult. In Yemen, 60% of the total population live in malarious areas. The problem of chloroquine resistance in Yemen is gradually worsening since the detection of first indigenous cases of P. falciparum resistance to chloroquine in 1989.

Methods: In a cross-sectional malariometric parasitic survey, 447 Yemeni children were enrolled from two selected districts (Hethran and Al-mafatch) representing Taiz Governorate. Duplicate thin and thick blood smears were prepared, stained with Giemsa stain and examined microscopically. Fifty-six students satisfied all criteria of the WHO for the assessment of P. falciparum response to chloroquine using a 7-day in vivo test.

Results: Out of 447 examined slides, 83 cases (100%) were found with falciparum malaria. The overall malaria parasite rate in Taiz Governorate was 18.6%, a prevalently mesoendemic condition. The obtained results of the 7-day in vivo study revealed that out of 83 P. falciparum cases who completed the study period, 56 cases did not respond to the standard dose of chloroquine, i.e. the overall resistance rate was 16.1%. The prevalence of chloroquine resistance was higher in the Hethran district (19.4%) compared with 10.0% in the Al-mafatch district. The majority had an RI resistance level.

Conclusion: Chloroquine resistance of the local strain of P. falciparum was recorded in all studied districts in Taiz Governorate. This calls for an urgent revision of the current malaria treatment policy which still considers chloroquine as the first-line drug for treatment of uncomplicated P. falciparum malaria. To assess the magnitude of the problem, these districts could be the basis of future sentinel posts for continuous monitoring of chloroquine resistance in the whole country.

12) Title: Cross-Sectional Study of Heart Failure Therapy with Angiogenesis Converting Enzyme Inhibitors and Digoxin

Authors: Mahmood SA, Hussein GM, Hamza EA.

Date: 2003

Source: Saudi Med J.2004 Aug; 25(8):1060-5

Abstract

Objective: The aim of the present study is to show a better short-term (2 weeks) clinical improvement in patients with heart failure (HF) who are receiving angiotensin converting enzyme inhibitors (ACEIs) (with or without digoxin) when compared to the standard therapy excluding ACEIs.

Methods: The study was conducted in Al-Gamhuria Teaching Hospital, Aden, Yemen, from January to July 2003. In this study, 78 patients with HF were enrolled into 3 therapeutic groups (ACEIs alone, ACEI and digoxin and digoxin alone) and their responses within 2 weeks were recorded. Exclusion criteria were as follows: thyroid disorders, gastrointestinal disturbances (diarrhea, malabsorption), electrolyte unbalanced (unless corrected) and insufficient data. Serum creatinine was measured at the beginning and after 10 days. In addition, the patients' body weight and age were recorded. Criteria for a complete improvement within 2 weeks were the occurrence of the following: 1) The relief of pulmonary congestion, 2) Decrement in heart rate to less than 74 +/- 5, 3) Disappearance of the lower limb edema, and 5) Recorded positive electroencephalogram change. Partial amelioration was recognized if only 2 or 3 of the preceding criteria were observed.

Results: Nine patients received digoxin alone, while 40 patients were treated with ACEIs and digoxin. Treatment with ACEIs without digoxin was observed in 29 patients. The discrepancy between the number of patients was necessitated by the need of patients with HF. This last category of treatment regimen produced better clinical improvement (complete with 10.1%, partial with 24.3%) compared to the digoxin group without ACEI (complete 2.5% or partial 5.1%). Nevertheless, the addition of digoxin to an ACEI increased this ratio (17.8% for complete and 28.2% for partial improvement). A 49.3% increase in serum creatinine was observed after 10 days in 25 HF patients, who were randomly selected and followed up (the baseline concentration was 99.75 +/- 9.9 umol/L, while the level after 10 days was 148.97 +/- 19.8 umol/L, p=0.005).

Conclusion: We confirmed that short-term use of ACEI regimens has a superior effect on the therapy of HF (34.4% complete and partial response) as compared to the therapy of not using ACEI (7.6% had a complete and partial response). The combination of ACEI and digoxin has resulted in the best outcome (46% had a complete and partial response). However, we also noticed a significant rise in serum creatinine by 49% concomitant with the use of ACEI (the baseline concentration was 99.75 +/- 9.9 um/L, while the level after 10 days was 148.97 +/- 19.8 umol/L, p=0.005).

13) Title: Types and Role of Cytochrome P450 Enzymes in Clinically Important Drug Metabolism (Review Article)

Author: Sameria Abdulla Mohamood

Date: 2001

Source: Yemeni J. of Medical and health Research Vol (1).No(1) ;May 2002

Abstract

This review aims to describe and demonstrate the recent updated studies and information about the types of liver cytochrome P450 enzymes and their role in clinically important drug metabolism. Updated journals, books and monographs were reviewed to gather valuable data. Around 30 human liver CYP enzymes were identified, where only six enzymes are included in drug metabolism and others are still under investigations. These enzymes are responsible for the most clinically important drug metabolism. Their inhibition or induction may result in alteration of the metabolism picture. The following conclusions can be taken into consideration.

1. Depending on the enzyme type, inhibition or induction of the metabolism may affect the corresponding substrates only.
2. Poor or extensive metabolizes affect the outcome of the metabolism. That may reduce or exaggerate the therapeutic outcome.
3. Alcohol consumption and cigarette smoking are important factors that need further study.

14) Title: Effect of the Aqueous Extract of Peganum Harmala on the Isolated Rabbit Duodenum and Trachea

Authors: Samira A. Mohamood, Nageeb A. Abbas, Roberto L. Rojas

Date: 2001

Source: Yemeni J. of Med, and Health Res Vol. (2), No (1), May 2003

Abstract

This research dealt with detection of the effect of the herb *Peganum harmala* (harmal), a folk medicine traditionally used in Yemen and other Arabic countries on isolated smooth muscle. Macerated aqueous extract of the dried herb (MEA) was assayed by using the isolated rabbit duodenum and trachea preparations, whose mechanical activity was registered with a frontal ink isotonic lever on a kymograph drum. MEA reduced the spontaneous movements of isolated preparations, notably at a high concentration of MEA. pre-incubation of the rabbit trachea with propranolol did not modify the relaxation action of MEA, excluding so any adrenergic mimetic activity. MEA also relaxed the barium chloride –induced contraction of the rabbit duodenum. These results were congruent with facts presented in reviewing literature, namely, an involvement of a non specific action of MEA on smooth muscle tissues.

15) Title: In Vitro Screening for Antibacterial Activity of Extracts of Selected Yemeni Medicinal Plants

Authors: Al-Alemi M., AL-Habori M., and Al-Mamary M.

Date: 2004

Source: Sana'a University J. for medical science. Vol. (1), issue (2) Dec. 2004

Abstract

The potential antibacterial activity of extracts of selected Yemeni medicinal plants including **Onopordon sibthorpainum**, **Acalypha fruticosa**, **Azadirachta indica**, **Aristolochia bracteolate**, **Cissus retundifolia**, and **Anisotes trisulcus** were tested **in vitro** on growth of isolated bacteria resistant to eight antibiotics or more. Significant inhibitions (91-96%) on **staphylococcus aureus** and **Klebsiella pneumonia** were observed with the acetone, methanol and water extracts of **Onopordon sibthorpainum**. Whereas *Proteus mirabilis* was greatly affected by the acetone and methanol extracts of the on operation sibthorpainum (90-94%), in contrast all three extracts of on operation sibthorpainum had a modest growth inhibition of cultured **Escherichia coli** (73-77%). The methanolic extract of **Acalypha fruticosa**, on the other hand, showed a significant inhibition (94%) of growth of *Escherichia coli*. Whereas, the acetone extract of **Acalypha fruticosa** was found to have a high inhibitory activity against **Staphylococcus aureus** (83%). The acetone extract of **Azadirachta indica** showed a high growth inhibitory activity (82-85%) on both *Escherichia coli* and *Proteus mirabilis* and a lower inhibition (73%) on *staphylococcus aureus* was seen with the methanol extract. Other remaining medicinal plant extracts tested, showed variable growth inhibitory effects on the various bacterial resistant isolates tested in this study. Of all the bacterial isolates, **Pseudomonas aeruginosa** was the least affected by the extracts used in this study.

Keywords: Antibacterial activity, microbial resistance, urinary tract infection, medicinal plants, *Azadirachta Indica*, Yemen.