



## GENETIC CAUSES OF MALE INFERTILITY IN GAZA STRIP - PALESTINE: A COMBINED CYTOGENETIC AND Y CHROMOSOME

ASHRAF SHAQALAIH, FADEL A. SHARIF

*Infertility is an extraordinary public health problem, especially in our Arab world, affecting about 15% of couples seeking children. However, in 50% of these, the male partner is responsible for infertility. Chromosomal anomalies and Y chromosome classical microdeletions in the azoospermia factor (AZF) regions are known to be associated with spermatogenic failure. In addition, partial AZFc deletions have been exposed to continuing intense debate on whether they cause spermatogenic failures or not. In the current study, 85 patients with primary male infertility were studied in order to explore the cytogenetic and molecular background of male infertility in Gaza Strip, Palestine. Of the 85 infertile males, 8 patients (9.4%) showed chromosomal anomalies in the form of Klinefelter's syndrome [4/8, 50%], 47,X $\text{Y}$ ,+mar [1/8,12.5%], 46,X $\text{Y}$ , del (17)(q25) [1/8,12.5%], 45,X $\text{Y}$ , Robertsonian fusion (15;21) [1/8,12.5%], and one*

*multiple mosaic karyotypes (1/8,12.5%). No Y chromosome classical microdeletions could be detected in any of the 85 infertile men. On the other hand, 6 gr/gr AZFc partial deletion cases (6/85, 7%) and one b1/b3 AZFc partial deletion pattern (1/85, 1.2%) were detected in the infertile group, while one gr/gr deletion was detected in the proven fertile controls (1/30, 3.3%).*

*In conclusion, our study proves that cytogenetic analysis is mandatory in any diagnostic workup of infertile males. Moreover, our study shows that the incidence of Y chromosome microdeletions is rare in our population, suggesting that other genetic, epigenetic, nutritional and local factors may be responsible for idiopathic azoo/oligozoospermic in Gazans population. In addition, we suggest that gr/gr deletions may not be associated with male infertility.*

**Keywords:** Male infertility, Chromosomal anomalies, Y-chromosome microdeletions, AZFc



## MEDICAL EDUCATION (UNDERGRADUATE)

EZZEDIN A GOUTA

*There is no more important task in society than the education of doctors of the future. The welfare of patients, the quality and safety of care depend on excellence in medical education. This presentation covers 3 issues that are key elements to medical education: What should be included in the undergraduate curriculum? What do we expect medical graduates to know and to do? What should be included in the assessment of undergraduate medical students?*

*The undergraduate curriculum is the first stage of medical education. It provides a foundation for future learning and practice as a doctor. Graduates who have gone through this process must be aware of, and meet, the principles of professional practice (GMC-UK) which includes:*

*Good clinical care,*

*Doctors must practise good standards of clinical care, practice within the limits of their competence, and make sure that patients are not put at unnecessary risk,*

*Maintaining good medical practice*

*Doctors must keep up to date with developments in their field and maintain their skills.*

*Relationships with patients*

*Doctors must develop and maintain successful relationships with their patients.*

*Working with colleagues*

*Doctors must work effectively with colleagues.*

*Teaching and training*

*If doctors have teaching responsibilities, they must develop the skills, attitudes and practices of a competent teacher.*

*Probity*

*Doctors must be honest.*

*Health*

*Doctors must not allow their own health or condition to put patients and others at risk,*

*Based on these principles, it is necessary for universities to identify the knowledge, skills, attitudes and behaviour expected of new graduates. The universities are expected to set appropriate standards, plan and co-ordinate delivery of the undergraduate curriculum, and make necessary rigorous assessments that lead to the award of a primary medical qualification.*

*Among the many features of the new curriculum includes integrated teaching and problem based learning. Some of the important changes include a substantially reduced didactic teaching, which is replaced by self-directed learning activities and case-based learning that is used for both basic*

*Teaching is delivered and learning is encouraged through a variety of methods. These are chosen on the bases of their appropriateness for the subject material, class size and learning objectives. Integrated teaching is a system where the clinical and basic sciences are taught and learned together. This allows students to see how scientific knowledge and clinical experience are combined to support good medical practice. Self-directed learning is a process in which students are responsible for organising and managing their own learning activities and needs. Problem-based learning (PBL) is an instructional method that challenges students to "learn to learn," working cooperatively in groups to seek solutions to real world problems. PBL is now an established method in undergraduate medical education that aims to develop reasoning skills based on clinical problems and prepares students to think critically and analytically, and to find and use appropriate learning resources.*

*Medical schools should determine the most appropriate scheme of assessment for their curriculum. Schemes of assessment must support the curriculum and allow students to prove that they have achieved the curricular outcomes at each stage of their study. When students get close to graduation, their knowledge, skills, attitudes and behavior must be thoroughly assessed to determine their fitness to practice as internship doctors. Schemes of assessment must be open, fair and meet appropriate standards. To achieve this, combination of assessment methods are often required.*

*Assessment may includes formative evaluation which is a prospective, ongoing and continuous assessment to monitor development and identify areas for remediation and summative evaluation which is a retrospective assessment of concrete achievements based on the results of learning experiences. Performance-based clinical assessment methods such as Objective Structured Clinical Evaluation (OSCE) are now widely used to supplement or replace the older traditional methods of examination in many institutions.*



## ATTITUDE OF PALESTINIAN COMMUNITY IN GAZA STRIP TOWARD STUDY OF MEDICINE AND REALITY OF MEDICAL COLLEGES IN GAZA

OSAMA ABO MOAMAR

*Study aimed to know the attitude of Palestinian people in Gaza strip toward study of medicine and reality of medical colleges in Gaza .*

*The study depended on the records and reports of higher education institutions and publications on their websites and a cross sectional study by questionnaire method which included doctors, medical students and citizens. Questionnaire was distributed by simple randomized method and analyzed by SPSS.*

*The study shows clear tendency of the position holder students and those of high scores to study medicine (nine out of the top ten). scientific and humanitarian motivators still the main motivation to study medicine (90%) followed by the desire of parents (70% ).*

*Although the social motivation had (60%) of motivation, more than half of physicians (54%) believe that the community does not pay extra-respect to doctors, and the reason for lack of respect is due to the weakness of mutual respect among the people as part of the current culture of the community (58% ), in addition to another reason that some doctors are not up to the level of responsibility placed on them (50%), the study shows that most male people prefer to treat their female relatives by male doctors except for health problems related to gynecology and obstetrics, which they prefer to be treated by female doctors (62%), while for most of women (43%) there is no difference between male and female doctors, followed by their preference to be treated by female doctors in all medical problems (29%).*

*On the subject of reducing the level of required score for admission at medical college of male students in order to achieve equal numbers of males and females (Note: in Gaza strip female students usually get higher scores than males in secondary schools, one of the universities required score of 98% or more for admission of female students, while it required Just 97.2% or more for male students) the majority of people (82%) think that it does not violate justice, but they were less enthusiastic to support it and those who support it were (65%).*

*Despite strict laws controlling admission to medical colleges there is no clarity in some admissions, in addition to increase number of admissions through parallel education and facilities given to sons of workers in the same university.*

*The study shows that the study of medicine is the most expensive one, and it costs 3-4 times the cost in other faculties, the scholarship received by students does not exceed 50% of the fees with no clarity in the mechanism when student deserves more than one (brothers + obtain an excellent score. . etc)*

*About exclusion of study of medicine in the rich class, study shows that the majority of students belonging to the middle class and (88%) of whom the average income of the head of family is in the range of (500-1000 \$), and most of them their father and mother have a university degree (77%).*

*About the tendency for inheritance in medical profession, the sons of doctors who are studying medicine in Gaza universities are about (19%) of the total medical students.*

*The study shows that medical colleges rely heavily on part-time lecturers for the educational process, which did not exceed the number of full-time lecturers who have high post graduation degrees (8.5%) of the teaching staff faculty and that was reflected directly on the contributions of lecturers in scientific research and their*



## EVALUATION OF CONTINUING MEDICAL EDUCATION (CME) IN EYE HOSPITAL, GAZA AS MODEL

MOHAMMED ALKASHIF, AMRO ABUIMARA

*Gaza Eye Hospital offers both secondary and tertiary eye services for more than one million population.*

*CME in the hospital has progressed markedly during 2007 in relation to previous years.*

*This study was designed aiming at evaluating the CME program through identification of attitudes and practices of staff in the hospital and the factors affecting the improvement and resources used and obstacles faced.*

*Data from hospital registers and questionnaire was designed and data analyzed. conclusions and recommendations:*

*The study included all medical staff in the hospital.*

*Results showed that there are marked effects of administrative and medical attendance and encourage on regularity of CME program.*

*High percentage of attendance during year 2007 much more than 2006. The study will show details.*



## DISTANCE LEARNING & TELEMEDICINE & ITS PARTICIPATION IN MEDICAL EDUCATION

HALIMA ALI ABED ELAZEEZ

*Scientific research has a great and effective role in the field of information and communication technology in relation to health services especially Telemedicine.*

*Telemedicine is to keep track of patient's information, and allow doctors or consultants from other countries to handle a case and help the local doctors to achieve the best diagnosis.*

*Telemedicine is divided into three main components which are; Communication Service Provider, Hospital Service Provider and Application Service Provider. It has entities such as Telemedicine Platform, Telemedicine Software, Clinical Devices, and Communication Media. Therefore, Telemedicine includes some features like Teleconsultation, Telediagnosis, Teletreatment, Telemonitoring and Telepresence.*

*There are many types of Telemedicine such as Tele-Radiology, Tele-Cardiology, Tele-Pathology, Tele-Ophthalmology, Tele-Dermatology, Tele-Psychiatry, and Tele-Surgery. Telemedicine ensures delivery of the right medical advice at the right place, at the right time.*



College of Medicine Conference (CMCI)  
Medical Education and Public Health

## A STATISTICAL STUDY OF THE PHYSICIANS' SELF-APPRAISAL AND THE IDENTIFICATION OF TRAINING NEEDS IN THE GAZA STRIP

SAMIR SAFI

*The ongoing medical education has become an essential part of medical practice and the educational process in the field of public health all over the world.*

*This statistical study has been applied on sample of physicians in the Gaza Strip. After the physicians' self-appraisal, it was found out that most of the medical cadre in the Gaza Strip is lacking qualification and experience. Accordingly these physicians are in need for training programs which would quality them for passing practitioner exam.*

*In addition, these training programs would enable these physician's to acquire the necessary skills and qualifications that world enable them to practice their medical profession in different specializations.*

*For this purpose, the study stresses the need for specialized training centers that would offers training programs that will help the physicians pass the practitioner exam. The study has also shown that there is a need for medical libraries which would meet the scholarly need of these physicians.*



## THE INCIDENCE OF CORONARY ANOMALIES IN A CONTINUOUS SERIES OF 950 ANGIOGRAMS AMONG PATIENTS IN GAZA STRIP

MOHAMMED HABIB, WAHEED ABO GALI, MIRVAT SIDEM

### **Background:**

Coronary artery anomalies are some of the most confusing, neglected topics in cardiology. Although the medical community and general public are increasingly aware that coronary anomalies can be fatal (typically in young, previously "healthy" athletes), the reasons for the sudden fatal event and the frequency with which it occurs are generally unclear. According to the literature, coronary anomalies affect ~ 1 % of the general population. To promote a less casual approach to this subject, we evaluated the incidence of coronary anomalies among adult Gaza Strip population.

### **Method:**

This is a retrospective study of patients evaluated in European Gaza Hospital- Cardiac catheterization unit between 18-November-2006 and 20-November-2007. The analysis of 950 adult patients with ischemic heart disease and therefore undergoing diagnostic coronary angiography, 708 (74.5 %) were male with a mean age of  $55.8 \pm 12.3$  years, and 242 (25.5%) were female with a mean age of  $58.6 \pm 10.6$  years.

### **Results :**

Among the 950 patients who underwent coronary arteriography, 29 (3.05 %) had coronary artery anomalies, absent left main coronary artery (split origination of Left Coronary Artery (LCA)) : 16 patients, Coronary artery Fistula : 3 patients, split right coronary artery (RCA) : 2 patients, ectopic right coronary artery : 3 patients, absent left circumflex artery (LCX): 1 patient , Origination of left circumflex artery from right coronary artery or right anterior sinus : 2 patients and low origination of right coronary artery: 2 patients.

### **Conclusion:**

The incidence of coronary anomalies among adult Gaza Strip population was high (29 patients, 3.05 %), the most common anomaly was Absent left main trunk (16 patients, 1.7 %).



## BACTERIAL, VIRAL AND FUNGAL GENITAL TRACT INFECTIONS IN PALESTINIAN PREGNANT WOMEN IN GAZA, PALESTINE

ABDEL MONEM LUBBAD, ADNAN AL-HINDI

**Background:** Pregnant women may be at high risk to be infected with sexually transmitted diseases. This study was carried out to investigate the prevalence of Chlamydia trachomatis, Human papilloma virus (HPV) and Candida albicans among pregnant women attending child and mother health care center in Gaza.

**Study design:** The present study included 423 pregnant women aged 16 to 50 years old, who attended child and mother care center in Gaza. They were complaining from clinical signs, vaginal discharge, cervicitis, and chronic cervicitis. Detection of Chlamydia trachomatis, Human papilloma virus and Candida albicans was carried out using standard methods.

**Results and conclusion:** The present study showed that the prevalence of Chlamydia trachomatis was 8.3%, Human papilloma virus 13% and Candida albicans 5.2%.

Chronic cervicitis was highly correlated to HPV. The findings indicated that pregnant women belonging to the age group >50 years old was found to be the highest group infected with C. trachomatis, Human papilloma virus (HPV) and C. albicans. Different results were obtained when STDs were correlated to years, low prevalence from 2000 to 2004 then increased slightly this was observed due to some improvement in primary health care and private clinics was noticed lately in Gaza Strip, beside the easy access to these services for women. It was concluded that these sexually transmitted infection present among pregnant women in Gaza and need more investigations using advanced techniques.

**Key words:** Chlamydia trachomatis, Human papilloma virus (HPV), Candida albicans, STDs





## AWARENESS OF AMBIGUOUS GENITALIA IN GAZA

JEHAD M. ABU DAIA

*Ambiguous genitalia is a rare disease but noted to be a common presentation in our pediatric endocrinology and urology clinics. The aim of our study is to identify the size of the problem, and to evaluate the family response to gender assignment.*

*A total of 80 children with ambiguous genitalia have been evaluated and treated.*

*The three most common causes were Congenital adrenal hyperplasia (CAH), deficiency of Ketosteroid Reductase 17KR, and deficiency of 5-alpha-reductase.*

*Most of the cases (42%) were from the north governorate.*

*Consanguinity was very high (84%). 17KR deficiency almost confined to the north governorate which indicates inbred gene effect in this area.*

*Gender assignment was a problem in few cases; Social shame was present in almost all cases.*

*The result of Surgical Reconstruction Gentioplasty of these Ambiguous genitalia was comparable to the international figures.*

### **Conclusion:**

*Though Gaza strip is a small area there is marked geographic distribution differences of the cases which reflect the general attitude of the population towards consanguineous marriage and inbred gene effect. In general, the earlier the diagnosis, the easier to make decision on gender assignment to rear the child in a socially acceptable role. Education of the medical personnel as well as the public education is highly recommended to reduce this health problem.*



## SUMMARY OF HEALTH SECTOR REVIEW IN WEST BANK AND GAZA

YEHIA ABED

The general objective of the Health Sector Review (HSR) is improving health sector planning for better health outcomes. The specific objective of this review is supporting the Palestinian National Authority, especially the MOH, and its partners involved in the provision of health services, to develop a clear overview and analysis of the health sector, and to propose a set of priorities and strategic orientations to be explored and developed according to plausible scenarios. IA Memorandum of Understanding (MOU) was signed by the Minister of Health, European Union (EU), Italian Cooperation (IC), the UK Department for International Development (DFID) and the World Health Organization (WHO) to finalize the implementation of the project. The World Bank joined the exercise, as a member of the Steering Committee.

The main conclusions can be summarized as follows:

First, the capacity building of planning and policy making lacks the structure appropriateness including the focal coordinating body for planning, information system, rules and regulations and the interrelated relationship between health providers at the different levels of care i.e. primary,

between the MOH and the donor community. Improvement of institutional building in general and specifically in planning, policy making and establishing a National Information System could improve the current situation towards a sustainable health system.

Second, inconsistency in health service delivery and disaggregating the limited compiled data compounded with poor quality of service require supporting the links between the primary, secondary and tertiary health care levels through a proper referral system and developing a consultancy system for different specializations in health care.

Third, treatment abroad consumes a great amount of the total budget and is continuously rising. This relates to poorly managed financial system and lack of controlling regulations for referring patients that need advanced treatment or diagnostic services. Necessary measures should be applied that may reduce the number of referrals as delineated in potentials for saving.

This report presented a group of detailed recommendations; we strongly recommend taking them into account for reform and development of the health sector in WB and Gaza.



## SURVEILLANCE AND RISK FACTORS FOR HEPATITIS C IN GAZA STRIP 2004 – 2006

YEHIA ABED, A/JABAR TEBE, RIAD AWAD, JEHAD AHMED, RANDA KHODARI

*This study is describing establishment of a sentinel surveillance system for HCV in Gaza Strip. The study identifies the major risk factors for the disease. In absence of valid HCV vaccines other primary preventive measures are essential to control the disease.*

**Objectives:** First objective is monitoring the changes in HCV infection prevalence among Palestinians in Gaza Strip. Second objective is identifying risk factors for HCV in Gaza strip. The third objective is planning for intervention policies to control the disease.

**Methods:** Surveillance included routine HCV examination for all donated blood in the blood banks in the Gaza strip. The surveillance also covers risky groups by investigation of all suspected hospital admitted patients. Blood samples were tested by AxSYM HCV version 3.0. Data are gathered from the different sites and checked to avoid duplication of case reporting. All positive cases are epidemiologically investigated. Series of case control studies were conducted through the process of HCV surveillance for three subsequent years in Gaza strip. For each case two controls are matched for locality.

All the community controls are examined to prove that they are HCV negative. By the end of this study the investigators completed combination of the gathered data during the three years. Based on these combinations, during the three years 292 subjects diagnosed as HCV positive are considered cases and the cases are matched for 585 healthy controls. Odds Ratio is used to measure the risk factors for the disease and the statistical significance level is measured by confidence interval for Odds Ratio.

**Results:** For blood donors 70,170 blood samples were examined and 33,223 blood samples were examined for high risk groups in the hospitals and the Central laboratory. The prevalence rate of Hepatitis C among blood donors in Gaza Strip dropped during surveillance period from 4.0 per thousand in 2002 to 2.4 per thousand in 2005. The prevalence rate of Hepatitis C among blood samples taken from risky groups in Gaza Strip increased from 35 per thousand during the year 2002 to 37 per thousand during 2003 and 2004. Then the prevalence dropped during the last surveillance year (2005) to reach 23.7 per thousand.

Risk factors as blood handling, surgery operation, travel abroad, visiting dentist, tattoo and non sterile injection remain all the time as risk factors for HCV transmission. Older age and males are at higher risk. Other known risk factors for the transmission did not reach statistical significance level as indicated by confidence interval for Odds Ratio. Those factors are related to personal hygiene and practices such as sex outside marriage, sharing tooth brush, razors and nail scissors.

**Conclusions:** In spite of the unstable political situation in Palestine all over the study period, surveillance system continues successfully, giving a message that surveillance system is essential during time of war as well as time of peace. Continuity of HCV surveillance is essential step to control the disease. Gaza results show that blood and procedures dealing with blood are the major risk factors for HCV in Palestine, improvement of HCV screening will minimize the risk of the disease. Risk factors related to personal hygiene and practices are under control in Gaza and



## HEPATITIS C VIRUS INFECTIONS AMONG HAEMODIALYSIS PATIENTS IN GAZA STRIP.

ABED EL-KADER Y. EL-OTTOL, ABDELRAOUF A. ELMANAMA, BASIM AYESH

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**Background:** Viral hepatitis infections are important causes of mortality and morbidity in haemodialysis (HD) patients due to the impairment of their immune response and to the multiple transfusion requirements. The aim of this study was to investigate the prevalence of HCV infection among haemodialysis patients in Gaza strip and to determine risk factors associated with it.

**Methods:** All patients attending the four haemodialysis units in Gaza strip during August-September, 2006 (246 patients) were tested for the presence of anti-HCV by using third generation enzyme immunoassay. A questionnaire that included possible risk factors was completed via patient interview to insure proper data collection.

**Results:** The overall prevalence of HCV infection among HD patients in Gaza strip was 17.9% (26.7%

and 0 % Abu-Yousef Al-Najar Hosp.); compared with a prevalence rate of 0.2% among healthy blood donors in Gaza according to last report of the Palestinian MOH, 2005. The data Analysis showed that the main risk factors for HCV infection among HD patients were: time duration on haemodialysis ( $p=0.001$ ), history of blood transfusion ( $p=0.00$ ), surgery ( $p=0.019$ ), and treatment abroad ( $p=0.009$ ).

**Conclusions:** The much higher prevalence of HCV in HD patients compared to normal population of Gaza strip indicates a causative relation between HD and HCV transmission. Therefore extremely careful observation of preventive infection control measures is essential to limit HCV transmission in haemodialysis units.

**Key words:** Haemodialysis, HCV, Risk factors, Gaza



## PREVALENCE AND RISK FACTORS FOR SKIN DISEASES IN GAZA STRIP - PALESTINE

MAGDY NAIM, YEHIA ABED, RAFAT NAIM

**Background:** Skin disease is a common problem; it is always assumed that the prevalence of skin diseases in developing countries is very high, and that infestations and skin infections are endemic.

**Objectives:** To determine the prevalence of skin conditions and associated risk factors in primary school children in Gaza strip.

**Methods:** A cross-sectional study was carried out on a multistage stratified random sample of schoolchildren in Gaza. A questionnaire for assessing factors associated with the prevalence of skin diseases was completed, and a complete physical examination was carried out on 359 students.

**Results:** This study showed that skin conditions are common in children and half of them (48.5%) are affected. The prevalence of skin diseases is higher among males (5.9%) than females (42.8%). Pityriasis alba and pediculosis lice had the highest prevalence rates of all skin disorders (23.5%, 9.5% respectively).

Males had a higher frequency of pityriasis alba (34.8%) than females (13.6%), but females had a higher frequency of head lice (16.2%) than males (1.2%). There is a strong significant differences in presence of pityriases alba and pediculosis lice among males and females. Other diseases were eczematous diseases 4.2% followed by infectious diseases (3.6%) and scabies (0.8%). Other diseases including pigmentary patches, insect bites, drug eruptions, vitiligo, cheilosis, and spares hair were 7.2%. The top five skin disorders on the list are: pityriasis alba, Pediculosis Lices, Eczematous Diseases, Infectious Diseases and Scabies. They comprised 85.1% of the skin conditions encountered. Demographics, socio-economic variables including the sex, age, place of living, and education level of mothers showed a great impact in having skin diseases, while prevalence of skin diseases are not affected by father's years of education, family income and family size. The findings pointed to the differences of some hygiene practice variables and having skin diseases. The results showed that the children who share combs, towels, beds, covers, clothes, and socks with others are more likely to be affected by skin diseases than who do not share.

**Conclusion:** The prevalence of skin diseases among schoolchildren in Gaza Strip was very high. Therefore, we recommended the introduction of a preventive health education program.



## EXPOSURE TO WAR TRAUMA AND "PTSD" AMONG PARENTS AND CHILDREN IN THE GAZA STRIP

THABET A.A., ABU TAWAHINA A. EYAD EL SARRAJ, PANOS VOSTANIS

**Purpose:** Exposure to war trauma has been independently associated with posttraumatic stress (PTSD) and other emotional disorders in children and adults. The aim of this study was to establish the relationship between ongoing war traumatic experiences, PTSD and anxiety symptoms in children, accounting for their parents equivalent mental health responses.

**Methods:** The study was conducted in the Gaza Strip, in areas under ongoing shelling and other acts of military violence. The sample included 100 families, with 200 parents and 197 children aged 9-18 years. Parents and children completed measures of experience of traumatic events (Gaza Traumatic Checklist), PTSD (Children's Revised Impact of Events Scale, PTSD Checklist for parents), and anxiety (Revised Children's Manifest Anxiety Scale, and Taylor Manifest Anxiety Scale for parents).

**Results:** Both children and parents reported a high number of experienced traumatic events, and high rates of PTSD and anxiety scores above previously established cut-offs. Among children, trauma exposure was significantly associated with total and subscales PTSD scores, and with anxiety scores. In contrast, trauma exposure was significantly associated with PTSD intrusion symptoms in parents. Both war trauma and parents' emotional responses were significantly associated with children's PTSD and anxiety symptoms.

**Conclusions:** Exposure to war trauma and its impact on children's mental health is mediated by parents' emotional responses, albeit they may be affected through different mechanisms than their children. Both universal and targeted interventions should preferably involve families. These could be provided by non-governmental organizations in the first instance.



## OCCURRENCE OF OSTEOPOROSIS AMONG MENOPAUSAL WOMEN IN GAZA STRIP

MOHAMMAD EID SHUBAIR, HUDA M HANIA

*Osteoporosis is a systemic disease of the skeleton which is characterized by low bone mass and alterations in the micro-architecture of bone tissue that lead to an increase in the brittleness with the ensuing predisposition to bone fractures. This disease is classified into primary and secondary osteoporosis. Global statistics show that women are more exposed to this disease than men and in particular at menopause. Extensive research has been carried out in developed countries concerning osteoporosis; unfortunately little information is available in our area.*

*The current research aims at studying risk factors which may lead to this disease, in addition, we intend to evaluate the efficacy of various laboratory investigations participating in perfect diagnosis and follow up of this disease, these are; serum calcium, magnesium, sodium, alkaline phosphatase, estradiol and the newly introduced test in our area, osteocalcin.*

*A group of women who attend arthopedic clinics suffering from osteoporosis were chosen, their age range was 40-60 years, another control group "osteoporosis free" was chosen of the same age. The total number of each group was 96 women. Results showed statistically significant differences between the levels of sodium, magnesium and alkaline phosphatase but the levels of calcium and phosphorous were not significant in comparison to the control group.*

*Results of estradiol and osteocalcin were statistically significant " $p < 0.05$ " which emphasizes the importance of conducting these two test for such cases.*

*The questionnaire results showed lack of awareness among women concerning osteoporosis as their daily practices proved; they don't drink milk regularly, they don't practice exercise, exposure to sunlight is minimal, drinking increased amounts of coffee and gaseous soft drinks, in addition, they were not aware of hereditary determinants which may lead to this disease.*

*In light of this research we recommend to implement awareness programs for women who are liable to be exposed to this disease, more emphasis on conducting clinical, laboratory and X ray investigations at early age and ingestion of enough doses of calcium and vitamin D.*

*They should be cautious of administering some drugs like corticosteroids.*

*We recommend the establishment of a scientific society aiming at spreading the relevant information about this disease and support research. Lastly we recommend to introduce both estradiol and osteocalcin assays in the laboratories of MOH as they have proved to be valuable.*

**Key words:** osteoporosis, menopause, osteocalcin, estradiol, Gaza-palestine



## MICRO- AND MACROALBUMINURIA AMONG TYPE 2 DIABETIC PATIENTS IN GAZA GOVERNORATE, GAZA STRIP

HASAN I ALTIBI, MAGED M YASSIN

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*Microalbuminuria is the hallmark of diabetic nephropathy. Its early detection can prevent or delay the progression to macroalbuminuria which is usually followed by end stage renal diseases. This study was carried out for the first time to assess micro- and macroalbuminuria among type 2 diabetic patients attending AL Remal diabetic clinic in Gaza Governorate. The sample size included 99 patients (44 males and 55 females) aged 30-60 years. The hypertensive patients were excluded. Microalbuminuria (urinary albumin 30-300 mg/24hr) was determined by immunoturbidimetric technique.*

*Macroalbuminuria (urinary albumin >300 mg/24hr) was determined by pyrogallol red method. Results revealed that 22.2% of patients were microalbuminurics (11 males and 11 females), 22.2% were macroalbuminurics (12 males and 10 females) and 55.6% were normoalbuminurics (21 males and 34 females). Ten (45.5%) and 11 (50.0%) of micro- and macroalbuminuric patients respectively developed such condition within the first 5 years of diabetes. Smoking was significantly associated with macroalbuminuria ( $\chi^2=8.33$ ,  $P=0.004$ ).*

*No significant association was found between the three diabetic groups and body mass index. Microalbuminuric patients had significantly higher HbA1c than normoalbuminurics ( $7.27\pm 1.65$  versus  $6.55\pm 1.09$  ( $\chi^2=7.75$ ,  $p=0.021$ )). In micro- and macroalbuminurics, serum urea levels ( $26.00\pm 9.29$  and  $25.59\pm 8.35$  mg/dl) were significantly increased compared to that of normoalbuminurics ( $22.38\pm 4.24$  mg/dl, ( $t=2.2$ ,  $p=0.030$  and  $t=2.35$ ,  $p=0.021$ )). In urine of microalbuminurics, urea, creatinine and phosphorus were significantly decreased compared to normoalbuminurics ( $1153.64\pm 434.22$ ,  $72.32\pm 42.39$  and  $32.14\pm 15.44$ , respectively versus  $1454.5\pm 509.24$ ,  $110.21\pm 54.23$  and  $51.78\pm 32.86$ , respectively) with  $t=2.34$ ,  $p=0.022$ ;  $t=2.84$ ,  $p=0.006$  and  $t=2.66$ ,  $p=0.010$ , respectively. No significant differences were found between the three diabetic*





## MOHAMED ETARSHAWI

*Keratoconus is characterized by a chronic progressive thinning and steepening of the central cornea. It presents a challenge to both ophthalmologists and optometrists because early diagnosis is difficult, prognosis is unpredictable and progression is variable.*

**Objectives:**

1. To determine the exact ages and sex which have been more affected by keratoconus.
2. To determine the degree of visual impairment caused by keratoconus.
3. To determine the percentage of unilateral and bilateral keratoconus.
4. To study the best methods of diagnosis and treatment of keratoconus to give the best visual acuity.

**Subjects and Methods:**

The records of 45 cases which were examined for keratoconus in a period of three months (from 29 January 2006 to 23 April 2006) in 1. Al-Quds Optic Center, Saint John hospital , European hospital, Al Naser eye hospital and the Islamic university laboratories of optometry. All cases were analyzed for; age, sex, unaided visual acuity,

*refraction (Objective & Subjective), keratometry, the unaided visual acuity for each case was taken by Snellen's chart, Munson's sign was examined for diagnosis, the corneal surface as well as the depth of the anterior chamber was examined using the slit lamp, Objective refraction was examined by autorefractometer and / or by streak retinoscope. Then the aided visual acuity was taken with the old glasses, the corneal curvature was measured by Javal keratometer, Bausch and Lomb keratometer or auto-refractokeratometer. After evaluations we tried to correct the impaired vision by glasses or contact lenses and the aided visual acuity was taken.*

**Results:**

1. From 45 cases we found that 60% were females and 40% were males
- 2-From 45 cases we found that the most affected age group was ranging between 15 to 18 years old.
- 3-The unaided visual acuity for right and left eyes in 45 cases was described
- 4- The number of keratoconus according to aided visual acuity was determined
- 5- From 45 cases: 4 cases were corrected by spectacles, 40 cases with hard contact



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The progressive increase in VRE isolation poses important problems in the antimicrobial therapy of nosocomial infections. Treatment options and effective antimicrobial agents for VRE are often limited and the possibility of transfer of vancomycin genes to other Gram-positive microorganisms continues. Linezolid was the first clinically applied member of the new antimicrobial class called the oxazolidinones. These agents have a powerful spectrum of activity focused against Gram-positive organisms including strains with documented resistances to other antimicrobial classes.

Linezolid is not in use in clinical practice in Gaza city. There is no available data concerning resistance against it. In order to determine the occurrence of linezolid-vancomycin-resistant enterococci (LVRE) in Gaza City, 100 hospitalized patients from medical and surgical intensive care unit (ICU), pediatric ICU, renal units and hemato-oncology wards at Al Shifa and Al Naser hospitals were screened for VRE fecal colonization. In addition, 100 non-hospitalized individuals from all over Gaza city were screened. Specimens were enriched and cultured on selective media for the isolation of enterococci.

The susceptibilities of the enterococci to vancomycin, linezolid and other common antimicrobial agents were determined by the disk diffusion method.

VRE were isolated from 69.1% and 43.8% of hospitalized patients and non-hospitalized individuals, respectively. High rates of resistance to an important antimicrobials used in human medicine were observed. Linezolid has the lowest percentage of resistance (2.1%) among hospitalized patients. No resistance was observed among non-hospitalized enterococcal isolates. This may be due to the fact that linezolid is not in use in clinical practice in Gaza city. The results of this study indicate that linezolid may be an appropriate therapeutic option for the treatment of vancomycin-resistant enterococci infections in Gaza city.

**Keywords:** Linezolid, VRE, Antimicrobial Resistance



ISOLATION AND ANTIBIOTIC SUSCEPTIBILITY OF SALMONELLA AND SHIGELLA STRAINS ISOLATED FROM CHILDREN IN GAZA, PALESTINE FROM 1999 TO 2006

FARID H ABU-ELAMREEN, FADEL A SHARIF , JAMAL ELSHIKH DEEB

**Background and Aim:**

*Diarrhea and acute gastroenteritis are among the leading causes of illnesses and death in infants and children throughout the world, especially in developing countries, Globally, Salmonella and Shigella remain the major contributors to acute enteric infections and diarrhea.*

**Methods:**

*In the present study, Shigella- and Salmonella-related diarrhea was studied among 3570 children in Gaza, Palestine from January 1999 to September 2006 to determine the prevalence and the antimicrobial susceptibility of the isolates.*

**Results:**

*The frequency of isolation was 1.8% (65/3570) for Salmonella spp. and 0.8% (28/3570) for Shigella spp. Shigella flexneri (16/28) was the most frequently isolated Shigella species. Most of the Shigella isolates were resistant to*

*ampicillin (79%) and chloramphenicol (46%) and most of the Salmonella isolates showed resistance to ampicillin (62%), trimethoprim-sulfamethoxazole (35%), chloramphenicol (35%) and cephalexin (26%).*

**Conclusion:**

*These data reinforce the need for continuous monitoring of microbiological and antimicrobial surveillance and the necessity to regulate the use of antimicrobials. According to the current study, ampicillin, trimethoprim-sulfamethoxazole and chloramphenicol should not be used as empiric treatment of diarrhea in children.*



## CARDIOVASCULAR, RENAL AND DIABETES MELLITUS (CKD) AMONG ETHNIC MINORITY IN BIRMINGHAM

YOUSEF ALJEESH, STEVE RILEY, ANDREW ROUSE

### Abstract

Chronic disease conditions are still the major cause of illness, disability and death all over the world despite broad public awareness of specific life threatening diseases such as heart disease, renal disease and diabetes mellitus. The purpose of this study is to monitor outcomes for certain chronic disease conditions associated with ethnicity.

### Methods

For the purpose of the present study a quantitative descriptive cross sectional design is used to investigate the outcome of certain chronic disease condition associated with ethnicity. The study population consist of 51875 subjects, 23390 female and 28485 are male. We identify the ethnicity of the participant by Internet, calling the subjects and asking other expert people in ethnicity. The study, verifying the data and blood test conducted at Enhanced Healthcare services (EHS). We identify the

diabetes mellitus (CKD) by using Cholestech L.D.X Machine for Lipid Testing System and Glucose.

### Result of the study

Descriptive and Frequency distribution generated to identify the ethnic minority people who are at risk for CKD. We started to do the test for Arabic ethnic minority people (34 subjects) until now. The results showed that one third of the participants have a risk for CKD 10-20% over next 10 years. In addition three participants will have risk for CKD 20-30% over next 10 years while 5 participants will have risk for CKD less than 10% over next 10 years.

### Conclusion

The primarily result showed that ethnic minority people are at high risk for CKD. The results have implications for screening and health care delivery for other ethnic minority people as Kurdish, Chinese, Vietnamese, and Polish

**Key words:** ethnic minority – CKD -