

**MEDICAL RESEARCH SOCIETY OF
PAKISTAN**

18th ANNUAL MEETING DECEMBER 29, 2007

ABSTRACT BOOKLET

HELD AT
CENTRE OF BIOMEDICAL ETHICS AND CULTURE (CBEC),
SIND INSTITUTE OF UROLOGY AND TRANSPLANTATION
(SIUT), KARACHI, PAKISTAN

**Medical Research Society of Pakistan
2007**

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MRSP
December 29, 2007
CENTRE OF BIOMEDICAL ETHICS AND CULTURE (CBEC)
SIND INSTITUTE OF UROLOGY AND TRANSPLANTATION (SIUT),
KARACHI PAKISTAN

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Message

I am extremely pleased to welcome everyone to the Eighteenth Annual Meeting of the Medical Research Society of Pakistan. The object of the Medical Research Society is to promote medical research in Pakistan. This cannot happen without recognising and supporting existing and potential research workers. This Society is unique in that it includes members from within Pakistan and abroad, and at each meeting welcomes new members.

One of the most important activities of this Society is this annual meeting where new research is presented, ideas are discussed, collaborations formed and worthwhile research activity recognised. Most important, it serves to stimulate younger doctors and basic scientists to involve themselves in research.

I hope that you will all enjoy this meeting and, most important of all, will be stimulated to involve yourselves in medical research - there are few things in life more satisfying than contributing to the fund of knowledge which may alleviate human disease.

Professor Nausherwan Khan Burki
Chairman
Medical Research Society of Pakistan
195 Farmington Avenue
Suite, # 201
Farmington, CT 06032
USA

PROGRAMME

- 09.00 – 09.30 Registration**
09.30 – 09.35 Talawat
09.35 – 09.45 Introduction of the Society by Prof. N. K. Burki
Chair, MRSP
09.45 – 10.00 Introduction of CBEC by Dr. Aamir Jafarey

10.00 – 11.00 Tea/Poster Session

Scientific Session-I

Chairperson: Dr. Naseem Salahuddin

Co-Chairperson: Prof. Amin Suria

- 11.00 – 11.30 *Invited Lecture I – "Of Mice and Men: Genetic Engineering and Chimeras, Promises and Pitfalls".***
Prof Farhat Moazam, Professor and Chair of the Centre of Biomedical Ethics and Culture
- 11.30 – 11.45 INTERIM ANALYSIS OF CLINICAL TRIALS: VITATOPS (VITAMINS TO PREVENT STROKE)VITATOPS TRIAL STUDY GROUP
Z Atif¹, KG Ishaq¹, I Javed¹, G Hankey²
¹Royal Perth Hospital / University of Western Australia
²Dow University of Health Sciences, Karachi. Free papers (3)
- 11.45-12.00 TREND OF SCABIES IN KARACHI REGION PAKISTAN: AN EPIDEMIOLOGICAL STUDY WITH SUGGESTIONS FOR MANAGEMENT.
A Samdani.
Jinnah Post Graduate Medical Centre, Karachi / AKU Karachi.
- 12.00-12.15 NO ASSOCIATION BETWEEN BRCA MUTATIONS AND SEX RATIO IN OFFSPRING OF PAKISTANI BRCA1/2 MUTATION CARRIERS
MU Rashid^{1, 2}, D Torres³, A Zaidi¹, F Rasheed¹, F Sultan¹, AR Shakoori⁴, A Amin⁵, U Hamann²
1Basic Sciences Department, Shaukat Khanum Memorial Cancer Hospital and Research Centre, Lahore, Pakistan;
2Deutsches Krebsforschungszentrum, Heidelberg, Germany;
3Instituto de Genetica Humana, Pontificia Universidad Javeriana, Bogota, Colombia;
4University of the Punjab, Lahore, Pakistan and
5Blumenthal Cancer Centre, Carolinas Medical Centre, Charlotte, United States.
- 12.15 – 12.45 *Invited Lecture II - "The 7 years of PakMediNet.Com - Pakistan's Largest Medical Information Gateway".***
Dr. Osama Ishtiaq MBBS, MCPS, FCPS (Medicine) Fellow, Diabetes & Endocrinology, Aga Khan University, Karachi and Administrator and Project Manager PakMediNet
- 12.45 – 13.00 RISING HIV THREAT IN PUNJAB, PAKISTAN.
N Saleem¹, S Abbas¹, MH Mckenzie¹, A Altaf¹, F Emmanuele¹, U Athar¹, A Razaque²
1Canada-Pakistan HIV/AIDS Surveillance Project (HASP-CIDA), Punjab AIDS Control Program,
2Department of Health, Government of Punjab, Lahore, Pakistan. Punjab AIDS Control Program
- 13.00-13.15 A COMPARISON OF VARIOUS TREATMENT MODALITIES OFFERED TO PATIENTS WITH NONALCOHOLIC STEATOHEPATITIS (NASH), ATTENDING A TERTIARY CARE HOSPITAL, IN KARACHI, PAKISTAN
SP Iqbal, S Mahmud, S Hamid, O Pasha, K Ahmad
Departments of Community Health Sciences and Medicine, Aga Khan University Hospital, Karachi, Pakistan

13.15 – 14.15 Lunch, Prayer Break & Poster Session

Scientific Session-II

Chairperson: Prof. Farhat Moazam

Co-Chairperson: Dr. Saeed Hamid

14.15 – 14.40 Invited Lecture III- “Plagiarism and what can we do to reduce it”

Prof. Anwar Ali Siddiqui, Professor and Associate Dean for Research Department of Biological and Biomedical Sciences, Aga Khan University.

14.40 – 14.55 AN IN VITRO INVESTIGATION TO EVALUATE THE EFFECT OF DIFFERENT CONCENTRATIONS OF NaOCl (Sodium Hypochlorite) AND 17% EDTA (Ethylene Diamine Tetra Acetic Acid) ON THE MICROHARDNESS OF IVORY DENTINE
MSH Siddiqui

Department of Operative Dentistry and Endodontics, Baqai Medical College, Karachi

14.55-15.10 EVALUATION OF INVADER® HCV GENOTYPING ASRS ON HCV ISOLATES FROM PATIENTS IN PAKISTAN.

N Anwar¹, S Saleem¹, N Erum¹ and S Peterson²

1Shaukat Khanum Memorial Cancer Hospital & Research Centre, Lahore, Pakistan;

2Third Wave Technologies, Inc., Madison, Wisconsin, USA

15-10.15.25 DIAGNOSTIC SIGNIFICANCE OF CD117(C-KIT) IN OVARIAN DYSGERMINOMA
R Yasin, S Mansoor

Shaukat Khanum Memorial Cancer Hospital & Research Centre, Lahore

15.25-15.40 THE INCIDENCE OF BRAIN METASTASIS IN HER 2-NEU POSITIVE BREAST CANCER PATIENTS INSTITUTION:

N Siddiqui, FA Anjum, M Arif, MK Siddique

Shaukat Khanum Memorial Hospital & Research Center (SKMCH & RC), Lahore.

15.40-15.55 ANTIPLATELET EFFECT OF BETEL NUT EXTRACT AND ITS CONSTITUENTS

SF Kazim^{1a}, MN Ghayur^{2ab}, AH Gilani^{2a}, SA Saeed^{2,3}

1Medical Student, Class of 2008, Aga Khan University Medical College (AKUMC), Karachi, Pakistan.

2Department of Biological and Biomedical Sciences (DBBS), AKUMC.

3Dr. Panjwani Center for Molecular Medicine and Drug Research, International Center for Chemical Sciences (ICCS), HEJ, University of Karachi, Pakistan.

aNatural Products Research Unit, Department of Biological and Biomedical Sciences, The Aga Khan University, Karachi-74800, Pakistan

bPresent address: CIHR Post-doc fellow, Department of Medicine, McMaster University, Canada.

16.00 – 16.50 Poster discussion

16.50 – 17.00 Concluding Remarks by Prof. Burki - announcement for award for best oral and poster presentations.

17.00 – 18.00 GBM (Members only)

POSTER PRESENTATIONS

1. ROLE OF HYSTEROSALPINGOSONOGRAPHY IN DIAGNOSING PYOSALPINX
E Saba, M Hasan
Institute of Ultrasound Imaging, Room No 1, Hilal –e- Ahamar House, Main Clifton Road, Karachi, Pakistan
2. PERCEPTION OF HEADACHE IN EMPLOYEES OF A PRIVATE ORGANIZATION
S Mumtaz, S Maqsood
Liaquat College of Medicine & Dentistry, Karachi, Pakistan
3. REHABILITATION OF MAXILLARY DEFECT FOLLOWING CANCER SURGERY: RETENTION OF OBTURATORS
SMR Kazmi, N Yazdanie
Department of Prosthodontics, Karachi Medical and Dental College, Karachi, Pakistan
Department of Prosthodontics, De'Montmorency College of Dentistry, Lahore, Pakistan
4. CLINICAL, LABORATORY AND RADIOLOGICAL INDICATORS FOR EARLY DIAGNOSIS OF TUBERCULOUS MENINGITIS IN CHILDREN
T Sultan, MA Malik, MMN Khan, TM Ahmed
Department of Neurology Children's Hospital, Lahore, Pakistan
5. ROLE OF ADJUVANT CHEMOTHERAPY CONTROLLED P53 ON EXPRESSION AND LOCALIZATION OF GALECTIN-3 IN BREAST CANCER PATIENTS.
S Faiz, A Shafiq, A Suleman, A Arshad, SH Ali, A Loya and FW Khwaja
Basic Science Lab, Shaukat Khanum Memorial Hospital and Research Center, Lahore, Pakistan
6. KNOWLEDGE ATTITUDE AND PRACTICES OF MEDICAL STUDENTS TOWARDS PHARMACEUTICAL INDUSTRY- A CROSS SECTIONAL ANALYSIS
KA Abbas, MOA Arif, TA Ali, MS Shakir, HI Iqbal, JAB Baba
Department of Psychiatry, Aga Khan University, Karachi, Pakistan
7. FAILED BACK SURGERY SYNDROME (FBSS) PREDICTION USING MULTIVARIATE LOGISTIC REGRESSION ANALYSIS AND FUZZY INFERENCE SYSTEM (FIS)
MS Shamim, SA Enam, U Qidwai
Department of Neurosurgery, Aga Khan University Hospital, Karachi, Pakistan
8. ATTITUDES AND PERCEPTIONS OF PEOPLE TOWARDS SUICIDE BOMBING: A HOSPITAL BASED SURVEY IN KARACHI, PAKISTAN.
SF Kazim¹, Z Aly^{1a}, HK Bangash^{1a}, BP Harchandani^{1a}, AB Irfan^{1a}, SM Javed^{1a}, RKUR Rehman^{1a}, H Naqvi², MM Khan³
1Medical Student, Class of 2008, Aga Khan University Medical College, Karachi, Pakistan
2Consultant Psychiatrist & Senior Instructor, Department of Psychiatry, Aga Khan University Medical College, Karachi, Pakistan
3Consultant Psychiatrist, Professor and Chairman, Department of Psychiatry, Aga Khan University Medical College, Karachi, Pakistan
a All these authors contributed equally in the study
9. LATERALITY OF AN OLFATORY MEMORY/DISCRIMINATION TEST IS ALTERED BY ESTROGEN REPLACEMENT THERAPY IN THE MENOPAUSE.
RL Doty, MT Kisat, I Tourbier
University of Pennsylvania School of Medicine, Philadelphia, USA
Aga Khan University Hospital Karachi, Pakistan
10. TO COMPARE USE OF INTRAVESICAL BACILLUS CALMETTE GUERIN AND MITOMYCIN C IN THE MANAGEMENT OF SUPERFICIAL BLADDER CANCER
K Bhatti, K Gondal, N Iqbal, S Jaffri, M Tahir and MN Chughtai
Department of Urology and renal transplantation Mayo/ Jinnah Hospital Lahore, Pakistan
11. INCIDENCE, PATTERN & OUTCOME OF GERM CELL TUMOR IN SKMCH & RC
S Wahla, N Siddiqui, M Arif, MK Siddique
Shaukat Khanum Memorial Cancer Hospital & Research Center (SKMCH & RC), Lahore, Pakistan
12. INJECTION DRUG USERS (IDUS) IN PUNJAB, PAKISTAN: DRIVERS OF THE HIV EPIDEMIC

- N Saleem, SI Abbas, MH Mckenzie, A Altaf , F Emmanuele, U Athar
Canada-Pakistan HIV/AIDS Surveillance Project (HASP-CIDA), Punjab AIDS Control Program, Department of Health, Government of Punjab, Lahore, Pakistan
13. KNOWLEDGE AND PRACTICE OF BREAST AND CERVICAL CANCER SCREENING AMONGST FEMALES BELONGING TO DIFFERENT GROUPS IN PAKISTANI SOCIETY
H Hafeez, Butt S
Shaukat Khanum Memorial Cancer Hospital and Research Center, Johar Town Lahore, Pakistan
 14. ICPD TO MDGS-A QUEST FOR COMMON GROUNDS: WHERE DO WE STAND AND WHAT NEEDS TO BE DONE?
F Abrejo
Agha Khan University Karachi, Pakistan
 15. A REVIEW OF THE PRACTICES OF DOCUMENTING DNR STATUS IN CANCER PATIENTS REFERRED FOR PALLIATIVE CARE
H Hafeez¹, N Anwar²
1Department of Internal Medicine, 2Basic Science Lab, Shaukat Khanum Memorial Hospital and Research Center, Lahore, Pakistan
 16. SPECTRUM OF NEURO DEGENERATION IN CHILDREN
T Sultan, MUR Rehman, MMN Khan
Department of Pediatric Neurosciences, Institute of Child Health and Children Hospital Lahore, Pakistan
 17. CLINICAL AND INVESTIGATIONAL VARIABLES FOR EARLY DIAGNOSIS OF TUBERCULOUS MENINGITIS IN CHILDREN
T Sultan, MA Malik, MMN Khan, TM Ahmed
Department of Pediatric Neurosciences, Institute of Child Health and Children Hospital Lahore, Pakistan
 18. DOES ELECTROENCEPHALOGRAPHY HELP IN EARLY DIAGNOSIS OF SUBACUTE SCLEROSING PANENCEPHALITIS
T Sultan, MMN Khan
Department of Pediatric Neurosciences, Institute of Child Health and Children Hospital Lahore, Pakistan
 19. PREVALENCE AND CLINICAL MANIFESTATIONS OF SUBACUTE SCLEROSING PANENCEPHALITIS AMONG CHILDREN HAVING UNEXPLAINED MYOCLONIC SEIZURES
MA Malik¹, T Sultan¹, G Hanif²
1The Children's Hospital & Institute of Child Health Lahore Pakistan
2Department of Immunology, Department of Paediatric Neurology, Lahore Pakistan

KEYNOTE LECTURES

Lecture 1
“Of Mice and Men: Genetic Engineering and Chimeras, Promises and Pitfalls”

Prof Farhat Moazam
Professor and Chair
of the Centre of Biomedical Ethics and Culture

The word “chimera” is used in Greek mythology for creatures composed of two or more different species. The most well known are the fire breathing Chimera with the head of a lion, the body of a goat and a serpent’s tail, and the Centaur that is half human and half horse. Examples of such fantastical creatures also appear in science fiction such as H. G. Well’s novel, *The Island of Dr. Moreau* (1896). Scientific advances in stem cell research and genetic engineering are beginning to offer the possibility of bringing such fantasies closer to reality. We now have the ability to successfully mix cells and genetic material from humans with those of different animal species. Such expertise brings with it the promise of understanding human illnesses and new therapies, but also raises profound ethical questions as the boundaries of this science keep getting pushed further.

Major concerns revolve around research attempting to create human-animal chimeras in which the brain cells of animals (mice and monkeys) are partly or entirely replaced by human neurons, and studies that involve mixing of human and primate embryonic tissues. There are increasing debates about the repercussions of blurring boundaries between species, issues of shifts in our understanding of what constitutes a “human,” our responsibilities towards “humanized” chimeras, and concerns about a scientific ideology in which what can be done ought to be done. A few countries have recently moved to formulate guidelines for embryonic stem cell research and the creation of human-animal chimeras but there is little international consensus on these issues. The lecture will provide an overview of some of the recent research related to human-animal chimeras, its potential for allowing better understanding and management of disease, and highlight some of the ethical concerns related to such research.

Lecture 2

The 7 Years of Pakmedinet.Com - Pakistan's Largest Medical Information Gateway

Dr. Osama Ishtiaq
MBBS, MCPS, FCPS (Medicine)
Project Manager, PakMediNet
Pak MediNet

PakMediNet is Pakistan's first database of Pakistani Medical Journals and Pakistani manufactured Drugs on Internet available for FREE. PakMediNet was made with the aim to promote biomedical research in Pakistan as well as creation of awareness among young doctors and health professionals about medical research. This database is designed on a structure similar to MedLine. The database comprises around 12,000 articles covering 55 medical journals. PakMediNet is the only source of online medical literature reference database in Pakistan. Beside providing free access to the medical literature of Pakistan, a new section was added last year through which young researchers can get expert feedback on their research proposals and synopsis for free.

PakMediNet has become an important source medical literature reference, and is recognized by PMRC, CPSP, COMSTECH, PMA, and AKU. This presentation will highlight 7 years experience related to the PakMediNet, Medical Research in Pakistan, feedback of the users and young researchers, and quality of the medical journals in Pakistan.

Lecture 3
Plagiarism and How to Deal With it

Anwar Ali Siddiqui, Research Office, Professor of Biochemistry and
Associate Dean for Research,
Faculty of Health Sciences
Aga Khan University, Karachi

During the past decade, the existence of plagiarism in research has been recognized by the scientific community as a major misconduct in research. It has been investigated by governmental agencies and institutional levels. However, the scientific community in Pakistan has not yet particularly engaged in its analysis in an organized way. In most institutions, majority of the time graduate and undergraduate students are targeted when it comes to creating awareness among them or investigating a suspected act of plagiarism as misconduct. Likewise on most occasions the focus on plagiarism has been confined to written text or articles while other forms of plagiarisms such as plagiarism of ideas, processes and other tangible and intangible materials are often ignored.

In this era of electronic communication, accessibility to data and written material has enormously increased and many writers and researchers quite often inadvertently or because of not having an understanding of what really is covered under the definition of plagiarism, indulge in this act. As the World Wide Web has become a popular source, mainly because of the ease of accessibility, the question arises on how to discourage users to avoid cut and paste technique when it comes to producing a written assignment or an article for a research journal. Considering the severe consequences associated with plagiarism, it would be appropriate to institute such measures that help in reducing indulgence into this act of dishonesty. It would therefore be prudent to deal with this problem by creating awareness and guiding the younger generation of scientific community to allow them to develop better analytical and communication skills.

ORAL PRESENTATIONS

**INTERIM ANALYSIS OF CLINICAL TRIALS: VITATOPS (VITAMINS TO PREVENT STROKE)
VITATOPS TRIAL STUDY GROUP**

Z Atif¹, KG Ishaq¹, I Javed¹, G Hankey²

¹Royal Perth Hospital / University of Western Australia

²Dow University of Health Sciences, Karachi, Pakistan

Objectives/Aims:

To determine whether vitamin supplements (folic acid, B6, B12) reduce the risk of stroke, other serious vascular events, dementia and depression in patients with recent stroke or transient ischemic attacks of the brain or eye (TIA).

Method:

An international, multi-center, randomized, double-blind, placebo-controlled clinical trial

Setting: 104 medical centers in 20 countries on five continents.

Subjects: 8000 patients.

Inclusion Criteria: Patients presenting within seven months of stroke or TIA who agreed to take study medication. Informed consent must be taken.

Exclusion Criteria: Taking folic acid or B6 on medical advice or vitamin supplementation. Taking Methotrexate. Pregnancy or women at risk of pregnancy. Limited life expectancy

Results:

Approximately 45% of the 5,614 patients who have been recruited till May 2006 are Asians, followed by Europe (32.3%), Australia (19.9%) and America (2.3%); 63% of recruited are females, while males form 37% of the total. The minimum mean age was found to be that of the Asians (58.6), while the highest were of the Australians (67.1). The follow-up rate is 88.2%, and the tablet compliance in patients followed up to five years is more than 77%. The discontinuance rate was found to be 13.7%, the lowest being in Asia and highest was that of Australia.

Conclusion:

VITATOPS aims to recruit and follow up 8,000 patients between 1998 and 2008, and provide a reliable estimate of the safety and effectiveness of dietary supplementation with folic acid, vitamin B6 and B12 in reducing recurrent serious vascular events, dementia and depression.

THE INCIDENCE OF BRAIN METASTASIS IN HER 2-NEU POSITIVE BREAST CANCER PATIENTS INSTITUTION:

N Siddiqui, FA Anjum, M Arif, MK Siddique

Shaukat Khanum Memorial Hospital & Research Center (SKMCH & RC), Lahore, Pakistan

Objectives:

Primary objective of the study was to determine the incidence of brain metastasis in her 2-neu positive breast cancer patients. Secondary objective was to determine the impact of her-2neu on disease free survival in breast cancer patients at SKMCH & RC.

Background:

Her 2 neu amplification is associated with aggressive breast cancer. Studies have documented increase incidence of brain metastasis in Her2neu + patients. The part of it being the sanctuary site where chemotherapy even Herceptin has less penetration & at the same time there is better systemic control as tumors are often reported as being more chemotherapy sensitive.

Methods:

Retrospective analysis of 557 non-metastatic breast cancer patients was done from 1996-2006 at SKMT & RC. Characteristics like age, menopausal status, grade, nodal status, receptor status, incidence of metastatic disease & their sites were analyzed. The data was stastically analyzed using SPSS system.

Results:

Out of 557 patients 279 had Her-2 neu –ve receptor status whereas Her-2 neu 3+++ patients were 278 .19 patients who had Her 2 neu –ve receptor status developed brain metastasis: median time to develop brain metastasis being 26 months.35 patients who had Her2neu 3+++ or FISH + ve Her 2 neu developed brain metastasis with median time to develop brain metastasis being 13 months.

Conclusion:

Her-2 Neu positive status is associated with increased incidence of brain metastasis with shortened disease free survival than Her2neu –ve receptor patient in breast cancer patients.

NO ASSOCIATION BETWEEN *BRCA* MUTATIONS AND SEX RATIO IN OFFSPRING OF PAKISTANI *BRCA* MUTATION CARRIERS

MU Rashid^{1,2}, D Torres³, A Zaidi¹, F Rasheed¹, F Sultan¹, AR Shakoori⁴, A Amin⁵, U Hamann²

¹Basic Sciences Department, Shaukat Khanum Memorial Cancer Hospital and Research Centre, Lahore, Pakistan

²Deutsches Krebsforschungszentrum, Heidelberg, Germany

³Instituto de Genetica Humana, Pontificia Universidad Javeriana, Bogota, Colombia

⁴University of the Punjab, Lahore, Pakistan

⁵Blumenthal Cancer Centre, Carolinas Medical Centre, Charlotte, United States

Background:

Data from experience in Europe and North America regarding gender ratio in the offspring of BReast CAncer Gene 1 (*BRCA1*) and BReast CAncer Gene 2 (*BRCA2*) mutation carriers remains controversial. It is not clear if germline mutations in the *BRCA1/2* genes favor female births or whether the gender imbalances are attributable to ascertainment bias.

Objectives/Aims:

To determine the male-to-female offspring gender ratio in Pakistani women from breast and/or ovarian cancer families those were either positive or negative for *BRCA* mutations.

Method:

A total of 165 female index patients from breast and/or ovarian cancer families who had been completely screened for *BRCA* mutations were included in this study. Among these, 23 carried a deleterious mutation in *BRCA1*, 7 in *BRCA2*, and 135 were non-carriers. The breast/ovarian cancer families and mutations have been described previously (Rashid et al., 2006) and are summarized by risk assignment as follows: 84 families had 1 breast cancer case (<30 years), 28 had 2 first-degree breast cancer cases (>1 diagnosed ≤50 years), 14 had 3 or more breast cancer cases (>1 diagnosed ≤50 years), 14 had 3 or more cases (>1 breast cancer case and >1 ovarian cancer case), 22 had 1 ovarian cancer case (<45 years) and 3 had 2 or more ovarian cancer cases (>1 diagnosed ≤45 years). The χ^2 test was used to analyze the gender ratio (male:female) in the offspring from index patients with and without *BRCA* mutations.

Results:

Overall, there were 60 offspring of *BRCA* mutation carriers and 304 from non-carriers (Table 1). There was no difference between the sex ratios of offspring between the two groups ($\chi^2=1.29$; $p=0.25$). The ratios were similar to that in the general Pakistani population.

Table 1: Offspring sex ratio of female *BRCA* carriers

Mutation status	Offspring			Ratio
	Total	Male	Female	
<i>BRCA1/2</i> carriers	60	35	25	1.4
Non-carriers	304	153	151	1.0
Pakistani population (http://www.statpak.gov.pk)				1.06

Conclusion:

Our study showed no evidence of gender ratio skewing in the offspring of female *BRCA* mutation carriers vs non-carriers in Pakistani breast/ovarian cancer families.

RISING HIV THREAT IN PUNJAB, PAKISTAN

N Saleem¹, S Abbas¹, MH Mckenzie¹, A Altaf¹, F Emmanuele¹, U Athar¹, A Razaque²

¹Canada-Pakistan HIV/AIDS Surveillance Project (HASP-CIDA), Punjab AIDS Control Program

²Department of Health, Government of Punjab, Lahore, Pakistan. Punjab AIDS Control Program

Objectives:

Canada-Pakistan HIV/AIDS Surveillance Project (HASP) and National/ Provincial AIDS Control Programs mapped Injecting Dug users (IDUs) and conducted Integrated Biological and Behavioral Surveillance (IBBS).

Methods:

A cross-sectional survey was done from August 2006 to January 2007 in five major cities of Punjab. The protocol was approved by the Ethical Review Board (ERB) of the Public Health Agency of Canada and ERB in Pakistan. Participation was voluntary and recruitment was conducted only after obtaining informed consent. Confidentiality was maintained and included non-disclosure of participant's identity and the use of a non-identifying coding system to track and link data. All biological samples were screened by Enzyme immunoassay or ELISA. A total of 2,000 questionnaires and 2,000 Dried Blood Spot specimen were collected.

Results:

Total numbers of estimated IDUs were 17,380 spread over 2,780 spots. Highest numbers were found in Faisalabad with 8,030 at 1,060 spots. Overall seroprevalence of HIV was 288/2000 (14.4%). Highest prevalence was found in Sargodha 206 (51.5%) (CI: 46.4, 56.1%) followed by 13.3% (CI: 10.3, 16.9%) in Faisalabad. Majority of IDUs 25.9% were between 25-29 years and 49% were married. Eighty one percent injected heroin in Sargodha. Injection with the used needle was as high as 30.3%. Only 19.4% passed on needle/syringe after use. Consistent condom use was reported by 13.3%.

Conclusion:

Pakistan has progressed from nascent to concentrated level of HIV epidemic among IDUs. Efforts of harm reduction and drug substitution programs are urgently needed to be scaled up in Pakistan.

AN IN VITRO INVESTIGATION TO EVALUATE THE EFFECT OF DIFFERENT CONCENTRATIONS OF NaOCl (SODIUM HYPOCHLORITE) AND 17% EDTA (ETHYLENE DIAMINE TETRA ACETIC ACID) ON THE MICROHARDNESS OF IVORY DENTINE

MSH Siddiqui

Department of Operative Dentistry and Endodontics, Baqai Medical College, Karachi, Pakistan

Aims:

The aims of this study were to investigate the effects of regularly used irrigants (1% NaOCl, 5% NaOCl and 17% EDTA) on the microhardness of ivory dentine and to compare this present study with previous studies to determine if ivory dentine can be used as a substitute for human dentine in the experiment laboratories given the difficulty in obtaining acceptance by the ethical committees for the use of natural human teeth.

Methodology:

38 pre-cut blocks of ivory were obtained from the Department of Oral Biology and were sectioned in half to obtain 75 blocks. These blocks were divided into 5 groups randomly such that each group contained 15 blocks. The dried blocks were stored in 70% alcohol to re-hydrate the specimens. The solutions were divided into 5 groups. Group A: 1% NaOCl; Group B: 17% EDTA; Group C: 5% NaOCl; Group D: 1% NaOCl and 17% EDTA; Group E: 5% NaOCl and 17% EDTA. The blocks were immersed for 20 minutes for 1% NaOCl and 5% NaOCl and for 5 minutes for 17% EDTA. The microhardness of the blocks was measured using a Vickers Diamond Indenter on a microhardness testing machine (Struers Duramin) before and after exposure of the blocks to their relative solutions. The dimensions of the indentation were measured via software (Duramin). The data was analysed statistically using one-way ANOVA and the means of all the groups were compared using the Tukey HSD multiple comparison test.

Results:

From this present experiment it was found that all solutions decreased the microhardness value of ivory dentine. There was significant difference between all groups ($p < 0.05$) except for between Group B (17% EDTA) and Group C (5% NaOCl) indicating that statistically these solutions had similar effects on the microhardness value of the ivory dentine.

Conclusion:

It can be concluded that 1% NaOCl, 5% NaOCl and 17% EDTA decrease the microhardness of ivory dentine although reduction in microhardness with a combination of 5% NaOCl and 17% EDTA was higher compared to other groups. Effects of these solutions are similar to previous studies done on human and bovine teeth. However, it will be of benefit to compare the results of this study with a similar study on human dentine to consider ivory dentine as its analogue.

EVALUATION OF INVADER® HCV GENOTYPING ASRS ON HCV ISOLATES FROM PATIENTS IN PAKISTAN.

N Anwar¹, S Saleem¹, N Erum¹ and S Peterson²

¹Shaukat Khanum Memorial Cancer Hospital & Research Centre, Lahore, Pakistan

²Third Wave Technologies, Inc., Madison, Wisconsin, USA

Introduction:

Invader® HCV(G) Analyte Specific Reagents (ASRs) (Third Wave Technologies, Inc., Madison, WI) have recently become available for the differentiation of hepatitis C virus (HCV) genotypes 1 to 6 based on sequence variation within the HCV 5' noncoding (NC) region. We evaluated the performance of HCV(G) ASRs, and compared Invader results with those obtained using an in house diagnostic genotyping assay.

Materials and Methods:

A consecutive series of samples were selected for Invader analysis from patient serum specimens submitted to the Basic Sciences Research Laboratory. Invader results were compared to genotypes determined using one of two methods, a type specific PCR targeting the core region of the HCV genome and the RFLP analysis which looks for differences in the 5' UTR region.

Results:

Invader showed excellent agreement with our in-house genotyping assay (89/94 specimens; 94.7%), with concordance rates of 83 % for genotype 1a (n=18), 100% for genotype 1b (n=10), 98% for genotype 3a (n=59), 100% for genotype 3b (n=5) and 50% for genotype 4 (n=2). Eighteen percent of the specimens were typed as mixed infections by the Invader assay, of these 9 were 1/3 coinfections, 7 were 3/5 coinfections and one was a 4/5 coinfection. DNA sequence analysis of the NS5B of specimens identified as 3/5 and as 1/3 coinfections revealed that the specimens were genotype 3 and 1 respectively. Of the five discordant specimens, three were typed as 1a by the in house assay and as type 3 by Invader, one was typed as 3a by the in house assay and as type 1 by Invader and one type 4 by the in house assay was typed as 5 by Invader.

Conclusion:

Although the assay is sensitive, accurate, and easy to perform, additional optimization of the Invader 1.0 interpretive software (Invader Data Analysis Worksheet) may be necessary to reduce potential misidentification of HCV genotypes and occurrence of mixed infections for use in this region.

DIAGNOSTIC SIGNIFICANCE OF CD117(C-KIT) IN OVARIAN DYSGERMINOMA

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Objectives/Aims:

To study the usefulness of CD117 as a diagnostic marker for ovarian dysgerminoma.

Method:

Ovarian dysgerminomas are rare ovarian tumors accounting for 1-2% of all ovarian cancers but are the most common malignant germ cell tumors of the adolescent women in the first two decade of life. Despite modern treatment options available, the most common complication is threat to fertility of young patients.

Ovarian dysgerminoma shares histologic and immunophenotypical features with its testicular counter part, seminoma. Role of CD117 (c-kit) is well documented in seminomas but there is a little data pertaining to its role in ovarian dysgerminoma. Although prognosis of dysgerminoma patients is generally good but this receptor could serve as an alternative to complement to conventional treatment options

C-kit is a proto-oncogene which encodes a 145-160kDa, type III transmembrane tyrosine kinase receptor known as C-kit or CD117.cell..CD117 is expressed in variety of human tissues including breast, ovaries, kidney, thyroid and testis. Aberrant expression of this receptor has been implicated in the development of number of human malignancies. Targeted therapies in some cancers such as GIST, Chronic myeloid leukemia(CML) have proven very effective.

An immunohistochemical marker that is sensitive for this tumor is stressed to prevent fertility of young females because reproductive compromise is a common side effect of conventional treatment.

Data collection and analysis:

18 diagnosed cases of ovarian dysgerminoma retrieved from the histology section of pathology department from 2000 to 2005. Formalin fixed ovarian specimen processed, cut and stained with hematoxylin and eosin. Later on CD117 immunohistochemical stain will be performed and examined by consultant histopathologist. Positive staining is cytoplasmic brown color and recorded in performa.CD117 staining pattern is as follows, (1-10%) will be considered 1+, 2+ staining (10-29%), 3+ staining (30-50%) and 4+ as (>50%)

Results:

Of the 18 cases, 17(94%) demonstrated immunoreactivity with CD117. In total, 11(61%) demonstrated 4 + staining; 3(16%) demonstrated 3+ staining; 1(5.5%) demonstrated 2+ staining; 2(11%) demonstrated 1+ staining; 1(5.5%) demonstrated no staining.

Conclusion:

C-Kit is a useful diagnostic and therapeutic marker for dysgerminoma. Successful C-Kit targeted therapies in GIST and CML, may provide a new target for conservative fertility sparing therapy.

TREND OF SCABIES IN KARACHI REGION PAKISTAN: AN EPIDEMIOLOGICAL STUDY WITH SUGGESTIONS FOR MANAGEMENT.

A Samdani

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Introduction:

Scabies is an intensely pruritic, highly contagious infestation of the skin caused by the arachnid mite *Sarcoptes scabiei*, variety *hominis*. Scabies is a disease of global proportions and the wide spectrum of clinical manifestations may lead the practitioner to the wrong diagnosis. Spread by direct contact, its diagnosis should be considered in any patient presenting h/o intense night itching along with h/o itching in family members or close contacts.

Objectives/Aims:

This epidemiology study was done to observe the trends of scabies infestation in Karachi region, as it could be a potential source of epidemic in the city.

Results:

Patients suffering with scabies alone were 72.6% while those with associated diseases were 26.9%. Age distribution was 1-20yrs 42(47.7%), 21-40yrs 33(37.5%), 41-60yrs 11(12.5%) and above 61 yrs 2(2.2%).

Discussion:

The pattern of the scabies in Karachi suggests few important findings. Despite the availability of effective chemotherapy, control of this condition has been hindered by lack of diagnosis/proper management. In addition the recent evidence for emerging resistance/non availability of effective vaccines is responsible for the spread of this condition in educational institution, hospitals and in overcrowded/low income group communities.

Conclusion:

It is thus emphasized that health education be given to all medical personnel regarding the management of scabies and preventive measures, so as to improve the general health of population & prevention of epidemics in future. There should be timely reporting of outbreak of the diseases in the population at large.

ANTIPLATELET EFFECT OF BETEL NUT EXTRACT AND ITS CONSTITUENTS

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Introduction:

There are an estimated 500 million users of betel nut throughout the world, particularly in Asia. Chewing of the nut is associated with copious salivary secretions, gastrointestinal stimulation and drop in the heart rate and blood pressure. We have reported the laxative, cholinesterase inhibitory and recently cardiac depressant activities of the nut. In this study, we analyzed the antiplatelet actions of 70% aqueous-methanol (Ac.Cr) extract of betel nut along with some of its known constituents namely arecoline, arecaidine, catechin, guvacine, isoguvacine, gallic acid, tannic acid and diosgenin.

Material and Methods:

Coarse ground betel nuts were soaked in 70% aqueous-methanol for 3 days, thrice, and the combined filtrate was dried in a rotary evaporator to yield about 15% of thick brown coloured crude extract. Venous blood was taken from healthy human volunteers reported to be free of medications for one week. Blood samples were mixed with 3.8% (w/v) sodium citrate solution (9:1), and centrifuged at 1500 rpm for 15 min at 20°C to obtain platelet-rich plasma (PRP). The remaining blood samples were centrifuged at 4000rpm for 5 min to obtain the platelet-poor plasma (PPP). Platelet count was determined by phase contrast microscopy. Platelet aggregation was monitored at 37°C using Dual-channel Lumi-aggregometer. The resulting aggregation was recorded for 5 min by the measurement of light transmission as a function of time.

Results:

Ac.Cr dose-dependently (1.0-1.75 mg/ml) inhibited arachidonic acid (1.7 mM, AA)-induced platelet aggregation with an EC₅₀ value of 1.57 mg/ml (1.46-1.68). When the different pure compounds were tested (up to 10 mg/ml) against AA-induced platelet aggregation, only catechin was found active (3.0-4.5 mg/ml) with an EC₅₀ value of 3.59 mg/ml (3.53-3.65). Later, Ac.Cr was further tested on adenosine diphosphate (ADP)-, epinephrine- and platelet activating factor (PAF)-induced aggregation. The extract also inhibited platelet aggregation induced by all these agonists and again catechin was the only compound that showed antiplatelet activity among all the compounds tested. Catechin was less potent than the parent extract indicating the presence of additional compounds with antiplatelet activity.

Conclusion:

These results indicate antiplatelet activity of betel nut extract and its compound catechin and point towards the possible preventive or therapeutic use of betel nut in blood coagulation and platelet aggregation disorders. However, further studies are needed to identify additional active compounds along with further biological activities using the in vivo animal models.

A COMPARISON OF VARIOUS TREATMENT MODALITIES OFFERED TO PATIENTS WITH NONALCOHOLIC STEATOHEPATITIS (NASH), ATTENDING A TERTIARY CARE HOSPITAL, IN KARACHI, PAKISTAN

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Objectives/Aims:

To compare various treatment options provided to patients with NASH and assess improvement in liver status via reduction in serum ALT levels

Method:

Records of patients with age between 20-70 years, fatty liver on ultrasound, elevated serum ALT and having at least one follow up, after a baseline visit were included. The patients had variable number of follow ups and a maximum of 3 follow ups were considered. Information was collected on demographic and clinical characteristics of the subjects. The treatment options were categorized as (1) diet and exercise only, (2) diet, exercise and statins, and (3) diet, exercise and other medications. Serum ALT level was the main outcome measured in IU/l. Repeated-measures ANOVA, using a mixed model approach was performed with treatment options as the between subject factor, and follow up as the within subject factor. P-value < 0.05 was considered significant.

Results:

Sixty-nine records of subjects, consisting of 50 males and 19 females were selected. The mean (\pm SD) age was 40 ± 12 years. Thirty-one (45%) received the option of diet and exercise only, and experienced a 72% reduction in serum ALT levels, over the mean follow up time of 9 ± 3 months. Twelve (17%) received statins along with diet and exercise, and experienced a 56% reduction in mean ALT over the mean follow up of 11 ± 7 months. Twenty-six (38%) received other medications along with diet and exercise and experienced a 73% reduction in serum ALT levels over the mean time of 10 ± 4 months.

Mixed model analysis demonstrated that the mean ALT declined at follow up times, irrespective of the prescribed treatment, and that the decline at various follow ups was different for males and females.

Conclusion:

Serum ALT levels among patients with NASH decreased with time, regardless of the provided treatment, and this decrease was different for males and females. There is a need for further studies, in similar circumstances, to better assess improvement in NASH with respect to treatment and time

POSTER PRESENTATIONS

ROLE OF HYSTEROSALPINGOSONOGRAPHY IN DIAGNOSING PYOSALPINX

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Objectives/Aims:

The purpose of the study was to distinguish hydrosalpinx/pyosalpinx from other adnexal masses by hysterosalpingosonography (HSS) using spring water.

Method:

Here we report a case of 30 years old female who presented with complains of secondary infertility; previous two ultrasounds done showed endometriotic cyst/ T.O. mass. Since she had secondary infertility the gynecologist wanted to know the status of her tubes hence advised tubal patency test. On ultrasound we found a complex mass on left side predominantly cystic with internal echoes and some solid tissue at the periphery measuring 5.8 x 5.0 cms. She was than subjected to HSS (hysterosalpingosonography) with spring water(a new technique) for testing her tubal patency.

Results:

HSS was done using spring water for testing her tubal patency and comet tail artifact of spring water were seen spurting out into the mass from the interstitial end of uterus confirming the diagnosis of pyosalpinx.

Conclusion:

Paper will highlight the entire procedure recorded on videotape at our centre and will show the moving micro air bubbles into the adnexal mass(pyosalpinx) which was initially thought to be endometriotic cyst/ T.O. mass.

PERCEPTION OF HEADACHE IN EMPLOYEES OF A PRIVATE ORGANIZATION

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There is no single cause of headaches. A number of causes have been identified which fall into two general categories: Tension headache and Migraine headache. The perception of headache is also different in different working classes. This study is planned to observe the different perceptions and the factors responsible for headache, so as to suggest some solutions to the problem.

Objectives:

The over all aim of this study is to know the perception about headache in the different Working categories in an organization. The objectives are to:

1. Know the perception of headache existing in different working groups in an organization.
2. Co-relate the factors responsible for headache in different working groups in an organization.

Methodology:

This is a cross-sectional study, done on 100 employees of a private organization, belonging to different categories of work. The sampling criteria is simple random. The inclusive criteria are all those employees who are not having any chronic disease or psychiatric problem. The results are analyzed on SPSS-11 program and statistical tests applied where possible

Results:

Through this study we expect to find the factors responsible for headache in the employees of a private organization. The perception of headache with regards to different working groups will also be seen. The results are awaited.

REHABILITATION OF MAXILLARY DEFECT FOLLOWING CANCER SURGERY: RETENTION OF OBTURATORS

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Department of Prosthodontics, De'Montmorency College of Dentistry, Lahore, Pakistan

Objectives/Aims:

In patients where the maxillary defect (acquired) cannot be surgically reconstructed, prosthetic restoration is indicated. Major problems encountered by the Prosthodontists during the rehabilitation of these patients, include support and retention of the prosthesis and limited mouth opening of the patients.

Method:

Problem of limited or less than optimal support and retention of the prosthesis may be overcome by conventional and unconventional means.

In this paper different approaches for the retention of the obturators will be shown.

Results:

The multiple (conventional and non-conventional) mechanisms of retention of different obturators designs are used successfully.

Conclusion:

This gives comfort to the patient and leading to increase confidence level to use the prosthesis.

CLINICAL, LABORATORY AND RADIOLOGICAL INDICATORS FOR EARLY DIAGNOSIS OF TUBERCULOUS MENINGITIS IN CHILDREN

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Department of Neurology Children's Hospital, Lahore, Pakistan

Objective:

To find out the clinical, laboratory and radiological indicators for early diagnosis of tuberculous meningitis in children.

Design:

Case series (prospective data)

Subjects & Methods:

Clinical data of 100 children treated as TBM (group A) admitted in the Neurology department, and another 100 children with diagnosis of meningitis, encephalitis or cerebral malaria (group B) was evaluated. History, clinical examination and relevant investigations were evaluated and Kenneth Jones criteria were applied to both groups.

Results:

Data of 100 children with TBM and similar number of controls was analyzed. Male to female ratio was 1.2:1. Clinically 77% children were in TBM stage III and 22% were in stage II and only one child was in stage I. There are number of variables including natural history of disease, serial CSF findings and brain imaging which had significant capacity for early diagnosis. Perhaps more studies are required to find out the efficacy of modified K J criteria.

Conclusion:

Tuberculous meningitis remains a serious health threat in developing countries. The variable (clinical features and laboratory investigations) of TBM had significant capacity for the early diagnosis if applied scientifically. There is an urgent need to improve diagnostic services at primary and secondary level to reduce the TBM stage III.

ROLE OF ADJUVANT CHEMOTHERAPY CONTROLLED P53 ON EXPRESSION AND LOCALIZATION OF GALECTIN-3 IN BREAST CANCER PATIENTS.

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Objectives:

Recent studies have shown that cell death can be induced through p53 controlled secretion of galectin-3 (Gal-3), a 31 kDa, β -galactoside-binding pro-apoptotic factor. The main aim of this project was to examine the role of adjuvant chemotherapy controlled p53 activation on Gal-3 expression and localization in breast cancer patients.

Methods:

Patients with first time diagnosis of breast cancer scheduled for surgery followed by adjuvant chemotherapy were recruited (n=50). The status of p53 protein and Gal-3 expression was analyzed in normal and tumor tissue by western analyses. Gal-3 localization was examined through immunohistochemistry (IHC). In addition, serum levels were quantified through ELISA in samples obtained at the time of presentation and at regular intervals throughout chemotherapy and were compared with healthy women as controls (n=32).

Results and Conclusions:

Only 6% of patients had detectable levels of wild-type p53 while full length intracellular Gal-3 was present in all normal as well as tumor tissues by western analysis. Additionally, a small 8 kDa fragment of Gal-3 was observed in some high-grade tumor tissues. This was especially interesting as matrix metalloproteinase-1 has been known to cleave Gal-3 to generate this fragment which is implicated in increased migratory potential of cancer cells. Concomitantly, levels of full length serum Gal-3 increased significantly after chemotherapy in over 40% of the patients especially in those with wild-type p53 status. Finally, in IHC analyses, intracellular Gal-3 was observed in areas of high cellularity while soluble Gal-3 expressing areas contained fewer cells and appeared more normal in nature.

KNOWLEDGE ATTITUDE AND PRACTICES OF MEDICAL STUDENTS TOWARDS PHARMACEUTICAL INDUSTRY- A CROSS SECTIONAL ANALYSIS

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Objectives/Aims:

While exposure to and attitudes about pharmaceutical industry interactions among doctors has been studied extensively, little is known about relationships between drug companies and medical students. This is more important to find in the setting of a developing country due to lower socioeconomic condition of the patients and limited resources. The main objective was to measure exposure of medical students to drug company interactions and attitude towards them.

Method:

It was a cross sectional survey carried out using a 32-item pre-validated questionnaire distributed to 248 students at a medical college in Karachi.

Results:

A total of 62.5% responders were from clinical years. 53% of the students reported an exposure of 2 or less gift or sponsored activity per week. Most common gifts to be accepted were pens and paper pads (49.6%). More than half (52.8%) of the participants believed that these interactions will influence them in the future as well as their colleagues (62.5%). A lot of the gifts were deemed as acceptable for students, most common being meals (61.3%), textbooks (71%) and travel to conferences (55.6%). Vacations and monetary gifts were found to be mostly inappropriate.

Conclusion:

Student experiences and attitudes suggest that they are approached by drug companies and are at significant risk of influence by these companies. Research should focus on evaluating methods to limit these experiences and educational interventions should be planned to affect the development of students' attitudes to ensure that as physicians, their decisions would be based solely on helping each patient achieve the greatest possible benefit.

FAILED BACK SURGERY SYNDROME (FBSS) PREDICTION USING MULTIVARIATE LOGISTIC REGRESSION ANALYSIS AND FUZZY INFERENCE SYSTEM (FIS)

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ATTITUDES AND PERCEPTIONS OF PEOPLE TOWARDS SUICIDE BOMBING: A HOSPITAL BASED SURVEY IN KARACHI, PAKISTAN.

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^aAll these authors contributed equally in the study

Introduction:

In recent years, suicide bombing has become a major problem in Pakistan causing large numbers of indiscriminate deaths and injuries as well as psychological trauma. Perpetuation of the act and recruitment of individuals in suicide bombing is influenced by general public's attitudes towards it. The objective of this study was to assess the attitudes and perceptions of Pakistani population towards suicide bombings.

Methods:

A cross-sectional survey using convenient sampling method was done in Karachi, Pakistan's largest city (pop. approx. 15 million).

Results:

215 people were interviewed, 49.8% males and 51.2% females, 210 Muslims (73.5% Sunnis and 24.2% Shias). 47.9% of the respondents were deeply religious, 42.8% restricted to rituals only, 9.3% agnostic.

84.7% of the study respondents denied support for suicide bombing; only 15.3% supported it. The respondent's sex, age, marital status, level of education, and socioeconomic status did not show any significant association with the respondent's support for suicide bombing. All the 15.3% respondents who supported suicide bombing belonged to Sunni sect and were deeply religious and supported the involvement of religion in politics. Also all those people who supported that the concept of political struggle in Islam allows suicide bombing also supported the phenomenon of suicide bombing. Despite the fact that 84.7% of the study respondents did not support suicide bombing and 81.4% also denied that Islam or any other religion supported suicide bombing, 37.2% considered suicide bombing a martyrdom activity. 54.9% considered suicide bombers having some underlying psychiatric illness; 83.3% felt that suicide bombing was a result of religious fundamentalism.

Conclusions:

The majority of the respondents interviewed did not support suicide bombing but more than a third considered it as a martyrdom activity. There is a need to conduct similar studies with larger sample size in other regions and cities of Pakistan. The findings can lead to a better understanding of this controversial phenomenon.

LATERALITY OF AN OLFACTORY MEMORY/DISCRIMINATION TEST IS ALTERED BY ESTROGEN REPLACEMENT THERAPY IN THE MENOPAUSE.

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Aga Khan University Hospital Karachi, Pakistan

Objectives/Aims:

In this study we determined whether post-menopausal estrogen replacement therapy (ERT) alters the lateralization of scores on a short term odor memory/discrimination test and an odor detection threshold test. We hypothesized that women on ERT would exhibit relatively greater left nostril performance on the OMT, but not on the odor detection threshold test, under the assumption that the former is more likely to engage left-hemispheric semantic processes than the detection threshold test.

Method:

Sixty post-menopausal women [mean (SD) age =58.98 (9.14)] served as subjects. We assessed the left:right nostril differences in two measures of olfactory function in 12 post-menopausal women receiving estrogen replacement therapy (ERT) and 48 post-menopausal women not receiving such therapy.

Results:

Women receiving ERT exhibited better performance in the left nostril and poorer performance in the right nostril on an odor memory/discrimination test (OMT) [$F(1,52) = 8.83, p = 0.004$], whereas women not receiving ERT exhibited no such left:right differences. No laterality effects were observed for odor detection threshold test scores [$F(1,53) = 0.00, p = 0.994$].

Conclusion:

The present study reflects estrogen's influences on cerebral lateralization, most notably on semantic pathways involved in odor memory/discrimination processes. These findings suggest that estrogen may result in right hemispheric activation and left hemispheric depression.

TO COMPARE USE OF INTRAVESICAL BACILLUS CALMETTE GUERIN AND MITOMYCIN C IN THE MANAGEMENT OF SUPERFICIAL BLADDER CANCER

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Objectives/Aims:

General: To compare the efficacy of Bacillus Calmette Guerin and Mitomycin C instillation in the management of superficial bladder cancer.

Specific: To compare results, Cost effectiveness and Toxicity of two regimes.

Introduction

Bladder cancer is the most common urological malignancy in Pakistan. Majority of new cases of TCC of bladder present with disease confined to superficial mucosa. Complete transurethral resection is considered standard by AUA. The recurrence rate has been reduced affectively by applying various intravesical BCG and chemotherapeutic agents (doxorubicin, thiotepa, mitomycin C).

Method:

It was randomized and comparative trial, the method of study was prospective with the follow up till 2 years. Between October 2001 to October 2005, a total of 40 patients with superficial recurrent transitional cell carcinoma of bladder were enrolled into the study. They were grouped into A and B, 20 patients in each group, Group A received BCG, Group B received MTC intravesically following TURBT.

Results:

Male to Female ratio was 4:1, the ages of patients ranged between 32 to 95 years with mean age 60.9 years. 37% patients were found to be smokers whereas 55% patients had occupational risks (dye, leather, petroleum, fertilizer and chemical industries) for bladder cancer. In group A recurrence was noted in 20% patients and in group B recurrence was noted in 30% patients. Bladder irritability in 25% patients and chemical cystitis in 30% patients were the more troublesome side effects associated with MTC as compared to BCG group in which these two side effects were noted in 12.5% and 20% patients respectively. The side effects more associated with BCG was pyrexia in 25% patients which was limiting and amenable to therapy but in case of MTC pyrexia was prolonged in 20% patients. Genital skin rash more with BCG noted in 17.5% patients was a minor complaint warranting local treatment only. Pyrexia was in 12.5% patients in case of MTC. Length and cost effectiveness of course were also factors that prompted patients compliance in case of BCG therapy. The total cost of BCG treatment (6 courses) was \$400 whereas the MTC treatment cost \$500 (8 courses).

Conclusion:

Keeping in mind less recurrence rate, less toxicity, cost effectiveness and duration of course, we can conclude that BCG is superior to MTC. This study suggests long term follow up is required to establish recurrence and progression rate in the management of bladder cancer.

INCIDENCE, PATTERN & OUTCOME OF GERM CELL TUMOR IN SKMCH & RC

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Objectives:

To determine the incidence, pattern & outcome of GCTs in SKMCH, over 8 year period.

Background:

Germ cell tumors (GCTs) are morphologically distinct group of neoplasms with varied clinical presentation. Ninety five percent of tumors arising in the testes are GCTs. More than 90% of patients with GCT diagnosed early are cured. A delay in diagnosis correlates with a higher stage at presentation & consequently, a lower cure rate. The success in treating GCTs is attributed largely to the effectiveness of Cisplatin-containing combination chemotherapy in curing advanced disease.

Methods:

Data from 1995 to 2003, total 155 patient's files were reviewed retrospectively for characteristics like age, sex, type of tumor, risk factors, presenting symptoms, stage, tumor markers, toxicities, treatment regimens, response to treatment & their outcome. Data analysis was done using SPSS system.

Results:

Out of 155 male pts, 76(49%) were of age group 31-40 with mean age of 39. Seminoma 45(30%) Non-seminoma 110(70%). Twenty two (14%) had stage-I, 53(34%) had stage -II & 80(54%) had stage-III. Sixty nine percent presented with pain & swelling & 15% had cryptorchidism as a major risk factor. After 5 year follow up, 62(40%) pts CR/alive. 51(32%) pts were in non-CR/alive group. 42 (27%) pts had documented death. Relapse free interval was 24, 18 & 13 months in stage I, II & III respectively. 5 year survival was 100%, 93% & 80% in stage I, II & III respectively.

Conclusion:

The pattern, presentation, response & outcome in GCTs to standard Cisplatin based chemotherapy in SKMCH & RC is compatible with western data. Prospective trials are needed to consolidate this study.

INJECTION DRUG USERS (IDUS) IN PUNJAB, PAKISTAN: DRIVERS OF THE HIV EPIDEMIC

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Canada-Pakistan HIV/AIDS Surveillance Project (HASP-CIDA), Punjab AIDS Control Program, Department of Health, Government of Punjab, Lahore, Pakistan

Background:

Canada-Pakistan HIV/AIDS Surveillance Project (HASP) has established second generation surveillance system (SGS) along with the National and Provincial AIDS Control Programs. As a part of SGS, we mapped Injecting Drug users (IDUs) and conducted integrated biological and behavioral surveillance (IBBS).

Methods:

A cross-sectional survey was done from August 2006 to January 2007 in five major cities of Punjab province. The study protocol was reviewed and approved by the ethical review board of the Public Health Agency of Canada, and Ethical Review Board in Pakistan. Participation was voluntary and recruitment was conducted only after describing the study procedures and obtaining informed consent. Monetary compensation was provided to participants for their time. Confidentiality was maintained and included non-disclosure of participant's identity and the use of a non-identifying coding system to track and link study data. The HIV testing procedures were designed for survey purposes, and not for providing HIV diagnostic results to participants. All biological samples were screened by screening EIA (Enzyme immunoassay or ELISA); HIV Genetic Systems rLAV EIA (Bio-Rad, USA) (in single wells). A total of 2,000 questionnaires and 2,000 Dried Blood Spot specimen were collected.

Results:

Total numbers of IDUs estimated were 17,380 spread over 2,780 spots. Highest number of IDUs found in Faisalabad with 8,030 at 1,060 spots. Seroprevalence of HIV was 288/2000 (14.4%). Highest prevalence was found in Sargodha 206 (51.5%) (CI: 46.4, 56.1%) followed by 13.3% (CI: 10.3,16.9%). Majority of IDUs 25.9% were between 25-29 years and were married 49%. 81% in Sargodha injected heroin. Injection with the used needle was as high as 30.3%. Only 19.4 passed on needle/syring after use. Consistent condom use was reported by 13.3%.

Conclusion:

Pakistan has progressed from nascent to concentrated level of HIV epidemic among Injecting Drug Users. Epidemic is not localized and has involved major cities. Efforts of harm reduction and drug substitution programs are urgently needed to be scaled up in Pakistan.

KNOWLEDGE AND PRACTICE OF BREAST AND CERVICAL CANCER SCREENING AMONGST FEMALES BELONGING TO DIFFERENT GROUPS IN PAKISTANI SOCIETY

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Objectives

- 1) To appraise the level of awareness and utilization of Breast and cervical cancer screening tests among educated females belonging to different groups.
- 2) To educate about the significance of various screening techniques and their role in early diagnosis.
- 3) To raise this issue of unawareness among government and non government organizations and to organize general public awareness programmes.
- 4) To arrange facilities for free or low cost screening programmes.

Material and Methods:

Study design

Population based survey with the help of an approved questionnaire.

Settings

We visited different colleges, universities, hospitals, houses, banks and other workplaces to get our questionnaire filled. Four groups of females which included students, house wives, working women and health professionals were targeted. We have collected the results in 200 women so far and the study is still in process.

Results:

Two hundred females have been questioned so far. Ninety percent of the respondents are educated to the level of graduate or above. Of the 20 educated to below graduate level 12 are housewives. Of the total, 85% of all respondents have access to internet.

Eighteen percent of respondents have never seen a doctor. About 85% of respondents had heard of cancer screening, 75% of respondents were aware of breast self examination, but 40% had never been taught how to do a proper breast self examination. Only 50% knew the correct frequency of doing a breast self examination, and 42.5% had never heard of a mammogram and half of those were students. Most of the respondents were unaware of when to go for a mammogram and how frequently.

Fifty percent of respondents had never heard of a pap smear. More than half of the housewives (60%) were unaware of pap smears. About 90% of all the females including the health professionals never had even a single pap smear even if they were sexually active.

As far as awareness of risk factors is concerned, most women thought that OCPs, diet and multiple sexual partners are not a risk factor for cancer whereas genes, radiation exposure and smoking were thought to be culprits by most.

Sixty-eight percent of the respondents agreed that they were not fully aware and need to know more either through reading, teaching or TV programmes.

Conclusion:

The concept of Breast and cervical cancer screening is almost non existent amongst women living in this part of the world not because of the finances but because of lack of knowledge. The awareness about pap smear and mammograms is disappointingly low and there is a gap between personal knowledge and uptake of the screening tests. Aggressive campaigning needs to be done in Pakistan to raise the level of awareness as well as uptake of screening tests.

ICPD TO MDGS-A QUEST FOR COMMON GROUNDS: WHERE DO WE STAND AND WHAT NEEDS TO BE DONE?

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Objectives/Aims:

- To identify the gaps and missing link between the two agendas: International Conference of Population and Development and Millennium Development Goals related to reproductive health.
- To review that the policies, programs and strategies of Government of Pakistan have addressed the reproductive health in above mentioned agenda?
- To devise recommendations for over coming missing link and gaps between the agendas of ICPD and MDGs related to reproductive health

Method:

The study is based on two components; a systematic literature review and key informants interviews. The published literature carrying the discussion of ICPD and MDGs from the year 1994-2001 was included, along with the official documents and reports of government of Pakistan and the reports of various international agencies were included in this study. For the key informant's interviews, fourteen interviews were conducted with experts who have some background knowledge about RH, till the time of saturation.

Results:

After triangulating the perceptions of key informants and information gathered from literature review, the findings of the study reveals that the ICPD agenda of reproductive health has been declared as the most comprehensive one, which had actually broadened the spectrum of reproductive health. MDGs, however, became the main focus of the national and international policies around the world. Among all the eight goals there is no explicit goal on RH agenda, therefore, it is considered as the "missing link" from MDGs. Like other countries, government of Pakistan has also shifted focus of its policies and programs towards achieving MDGs. As a result, concepts highlighted in the ICPD dropped eventually. In spite of specific goals on maternal and child mortalities in MDGs and all the investment and policy shift, Pakistan has still one of the highest maternal mortality rates among developing countries. Lack of synchronized efforts, sector wide approaches, inter-sectoral collaboration, unmet need for family planning, unsafe abortions, low literacy rate and dearth of women empowerment are the main reasons. There is a need of political will and involvement of stakeholder for bringing positive change in the policies. The MDGs clearly highlighted the importance of inter-sectoral collaboration, NGOs role in development and global level cooperation among states, which is lacking in our country.

Conclusion:

Being a signatory of both of the international agendas (ICPD and MDGs), Pakistan needed to articulate its policies to keep the balance between the two agendas. There are, however, certainly some common grounds which have been experimented by various countries and we can learn lessons from those best practices. An inter-sectoral cooperation and sector wide approaches would be required to achieve such ambitious goals set out in ICPD-PoA while working towards MDGs. There is a need of increasing resource allocation, strengthening primary health care services and EmOC and motivating the human resource employed in health sector by good governance. These endeavors should lead to formulate evidence based national policies, reproductive health services which are affordable, accessible and culturally acceptable and finally a responsive health system.

A REVIEW OF THE PRACTICES OF DOCUMENTING DNR STATUS IN CANCER PATIENTS REFERRED FOR PALLIATIVE CARE

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Introduction:

A lot of studies have quoted various success rates for CPR but in general the range of successful outcome is between 6 and 15%. This is for all adults admitted to hospitals. These figures will obviously change for elderly patients or people with chronic conditions like cancer, therefore it is necessary that physicians looking after such patients discuss and document resuscitation decisions with patients. In this study we have attempted to review the practice of documentation of DNR decision in medical notes of patients referred to a nurse led palliative care clinic at our tertiary care cancer hospital.

Method:

Medical records of patients seen at the palliative care clinic were reviewed for evidence of CPR code status. Descriptive statistics were recorded as percentages for proportions and as means, medians, standard deviations, and ranges for continuous variables.

Results:

During January 2006 until October 2007, a total of 313 patients were seen in the palliative care clinic. The proportions of men and women seen in the clinic were approximately equal. The median age of the patients was 47 years (range: 5–90 years). The most common primary cancers sites were of the breast, oral cavity, colon/rectum and cervix uteri. Only 78 (24.9%) of the 313 patients had any documented reference to CPR code status. Of these 78 patients, 75 were DNR-coded, and 3 were full code. More than half (57.7%) of DNR coded patients had been referred to the palliative care clinic as hospital inpatients by the consultant Hospitalist, whereas only 36% of the coded status patients had been referred by their Oncologist. Although the entry date DNR status was prior to the first clinic appointment in most of the cases, 25 of the 78 patients had their status entered after their first appointment as inpatients in critical condition.

Conclusion:

Only a small proportion of symptomatic advanced cancer patients had any documentation of CPR code status upon referral for outpatient palliative care. It appears from the review of records that the DNR status is being entered when the patient is in critical condition.

We recommend that in future, clinics plan to request information about CPR code status on their referral form.

SPECTRUM OF NEURO DEGENERATION IN CHILDREN

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Objective:

To find out the spectrum of diagnosis, clinical presentation and role of neuroimaging in neurodegenerative disorders of childhood.

Design: Descriptive study.

Department of Neurology Children's Hospital, Lahore from June 1, 2004 to May 31, 2005.

Subjects & Methods:

A total of 1273 patients were admitted in the Neurology department in the said period. Out of them 66 children fulfilled the inclusion criteria. History, clinical examination and relevant investigations were carried out and profarmas were filled.

Results:

Male to female ratio was 1.4:1. Age range was one to twelve years. Metachromatic leukodystrophy was the predominant type 14 (21%), followed by 11 cases of adrenoleukodystrophy (16%) and 8 patients with SSPE (12%). 6 children (9.8%) have Wilson Disease. Five cases (7.5%) were diagnosed as Friedrich ataxia, four cases (4%) of lipidosis, 3 case were diagnosed as Gaucher disease(4.5%) , and two cases (3%) of each Alexander disease, Hellervordenspatz disease, one case each of multiple sclerosis and ataxia telangiectasia. In six cases final diagnosis could not be made.

Conclusion:

Degenerative brain diseases are not uncommon entity in pediatric population. Commonest presentation is regression of mile stones through it may be variable. Presentation is quite variable. Physicians must look into it when dealing with children having regression of milestones to diagnose them earlier. Because of limited diagnostic modalities, brain imaging has significant valve. Facilities for enzyme studies should be available at tertiary care hospitals.

CLINICAL AND INVESTIGATIONAL VARIABLES FOR EARLY DIAGNOSIS OF TUBERCULOUS MENINGITIS IN CHILDREN

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Objective:

Clinical and investigational variables indicators of early diagnosis suffering from tuberculous meningitis in children.

Design: Case control prospective study

Place & duration of study: Department of Neurology Children's Hospital, Lahore from March 1, 2005 to August 30, 2005.

Subjects & Methods:

Clinical data of 100 patients being treated as TBM (group A) admitted in the Neurology department, and another 100 patients with diagnosis of meningitis, encephalitis or cerebral malaria (group B) were evaluated. History, clinical examination and relevant investigations were evaluated and Kenneth Jones criteria were applied to both groups. All children were followed and their outcome was also studied.

Results:

Data of 100 patients with TBM and controls was analyzed. Among group A children 26% were less than 2 years of age. Male to female ratio was 1.2:1. Duration of symptoms was more than 1 month in 73 children. 28% children had cranial nerves palsies, 33% children had hemiplegia and 38 children had GCS less than 7 at the time of presentation. Clinically 77% children were in TBM stage III and 22% were in TBM stage II and only one child was in TBM stage I. 56% children had contact to TB patient. Mantoux test was applied in 73 children and only 17 had induration of more than 10 millimeters. Radiological findings of hilar lymphadenopathy were seen in 31% children and seven children had miliary shadowing. Hydrocephalus was seen in 67 Children and 47 children develop basal meningial enhancement. 26 children had brain Tuberculoma. Above 50 ESR was seen in 43 children. Surgical intervention was carried out in 48 children and 4 children developed acute hepatitis during the 2nd week of treatment. Only 9 children lost their lives during the first admission (period varies from 10 day to 38 days) while another 7 children expired subsequently.

Conclusion:

Tuberculous meningitis remains a serious health threat in developing countries. The variable, natural history and accompanying clinical features of TBM had significant capacity for the early diagnosis and prognosis if applied scientifically.

DOES ELECTROENCEPHALOGRAPHY HELP IN EARLY DIAGNOSIS OF SUBACUTE SCLEROSING PANENCEPHALITIS

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Objective:

To find out the role of electroencephalography in the early diagnosis of subacute sclerosing panencephalitis.

Design: Cross sectional observational study.

Department of Neurology Children's Hospital, Lahore from April 15, 2004 to September 15, 2005.

Subjects & Methods:

Children between the ages of 4 to 18 years (n=29) with myoclonic jerks were admitted in Neurology department. History and clinical examination was carried out and EEG and CSF antimeasles antibodies were performed. Children may have EEG findings consistent with SSPE (EEG abnormalities having burst suppression in high amplitude slow and sharp waves recur at 3-5 second interval on slow background) or other EEG findings like myoclonic epilepsy with normal back ground, normal EEG etc. CSF of all children was sent for antimeasles antibodies for further confirmation which was considered diagnostic. Brain imaging was done in all children to exclude other possible diagnosis.

Results:

Total of 19 patients with EEG findings of subacute sclerosing panencephalitis were further confirmed with CSF anti measles antibodies. It was positive in 17 children. (P value < 0.05). While ten children had negative EEG findings and all of them had negative results for CSF antimeasles antibodies. Male to female ratio was 1.4:1 with 11 males and 6 females. Age range was six to fifteen years.

Conclusion:

Subacute sclerosing panencephalitis is not an uncommon entity in our population with quite variable clinical presentation and electroencephalography has significant value in early, cost effective and reliable diagnosis.

**PREVALENCE AND CLINICAL MANIFESTATIONS OF SUBACUTE SCLEROSING
PANENCEPHALITIS AMONG CHILDREN HAVING UNEXPLAINED MYOCLONIC SEIZURES**
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Objective:

Knowing the neuroepidemiology, single case of SSPE would mean a very high incidence of measles infection in the community.

Design: Observational descriptive case study.

Place and duration: Department of the Paediatric Neurology, The Children's Hospital, Lahore Pakistan from 1st Sept 05 to 30th Nov 06 (14 months)

Patients & Methods:

All children age 2 years-16 years, having myoclonic seizures referred for diagnostic EEG testing were included in this study. The diagnosis of SSPE was confirmed according to Dyken's criteria.

Results:

Out of a total of 3200 children referred for EEG testing 192 (63% boys and 37 % girls) children having unexplained myoclonic seizures had first abnormal EEG in 65% of the cases. Among these abnormal EEGs, 28 (23%) were suggestive of SSPE but IgM-anti-measles antibody in CSF was confirmed in 26 (93%) of these patients, having male / female ration 3:1, age range from 5 to 13 years with mean age of 8 years. The Electroencephalographic findings were; early stage in 40%, burst-suppression in 52%; late stage of SSPE in 8%. One body had EEG findings of non-convulsive status epilepticus. Myoclonic seizures, motor / cognition deterioration, choreiform movements, intentional tremors, psychological manifestations and visual impairment were the predominant clinical features. The immunization status of SSPE patients was; 77% got 1st dose at nine months of age, 65% got second dose at eighteen months of age none got any further dose of measles vaccination, whereas 31% of these cases had past history of measles infection.

Conclusion & recommendation:

There is high incidence of measles infection in Pakistan. We recommend immediate commencement of mass immunization against measles at different ages.