

**MEDICAL RESEARCH SOCIETY OF PAKISTAN  
(MRSP)**

19<sup>th</sup> Annual Meeting

In Collaboration With  
The University of Health Sciences (UHS)

October 31, 2009

**ABSTRACT BOOKLET**

HELD AT  
The University of Health Sciences (UHS) Lahore,  
Pakistan



**Medical Research Society of Pakistan  
2009**

**Chairman**

**Professor Nausherwan Khan Burki** (*APPNA Representative*)  
University of Connecticut  
**United States of America**

**General Secretary**

**Dr. Faisal Sultan**  
Shaukat Khanum Memorial Cancer Hospital & Research Centre  
**Lahore**

**Executive Committee Member**

**Prof. Muhammad Ayub**  
Department of Physiology, Ayub Medical College  
**Abbottabad**

**Prof. Kamran Aziz**  
Head of Dept Biochemistry, King Edward Medical University  
**Lahore**

**Dr. Saeed Hamid**  
Medical Director & Associate Dean, Clinical Affairs, Professor, Section of Gastroenterology  
Department of Medicine  
The Aga Khan University & Hospital  
**Karachi**

**Prof. Perwaiz Iqbal**  
The Kurban Nagji Professor of Biochemistry and Acting Chair  
Department of Biological and Biomedical Sciences  
The Aga Khan University & Hospital  
**Karachi**

**Dr. Muhammad Aasim Yusuf**  
Medical Director, Consultant Gastroenterologist, Department of Internal Medicine  
Shaukat Khanum Memorial Cancer Hospital & Research Centre  
**Lahore**

**MRSP**  
**October 31, 2009**  
**The University of Health Sciences (UHS) Lahore, Pakistan**

**ORGANISING COMMITTEE**

<b>Chair:</b>	Dr. Faisal Sultan
<b>Secretary:</b>	Dr. Muhammad Usman Rashid
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**ABSTRACT REVIEW COMMITTEE**

<b>Secretary:</b>	Dr. Natasha Anwar
<b>Reviewers:</b>	Prof. Muhammad Ayub
	Dr. Ahsan Azhar
	Dr. Farhana Badar
	Prof. Nausherwan Burki
	Prof. Perwaiz Iqbal
	Dr. Uzma Majeed

**Panel of Judges to Nominate the Best Oral and Best Poster Presentation**

Prof. Kamran Aziz  
Prof. Muhammad Aslam Khan  
Prof. Ishtiaq Qadri

### **Message**

I am very pleased to welcome everyone to the nineteenth Annual Meeting of the Medical Research Society of Pakistan (MRSP) organized in collaboration with the University of Health Sciences (UHS), Lahore, Pakistan. The object of the MRSP is to promote medical research in Pakistan. This cannot happen without recognizing 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 recognized. 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 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**

**Scientific Programme**  
**Saturday, October 31, 2009**

- 8:00 – 8:30**      **Registration**  
**8:30 – 8:35**      **Recitation from The Holy Quran**  
8:35 – 8:45      Introduction of the MRSP Society by Prof. N. K. Burki, Chairman, MRSP  
8:45 – 8:55      Chief Guest - Vice Chancellor of the University of Health Sciences

**Scientific Session – I**

Chairperson: Prof. Muhammad Ayub, Dept. of Physiology, Ayub Medical College, Abbottabad, Pakistan

Co-Chairperson: Prof. A. H. Nagi, Dept. of Pathology, University of Health Sciences, Lahore, Pakistan

- 9:00 – 9:25**      ***Invited Lecture I – "HCV INDUCED LIVER PATHOGENESIS"***  
**Prof. Ishtiaq Qadri** (PhD), Director General National University of Science & Technology (NUST), Center of Virology & Immunology, Rawalpindi, Pakistan  
Visiting faculty of Aga Khan University, Karachi, Pakistan

**9:25 – 9:55**      **Poster Session / Tea Break**

- 10:00 – 10:10      “*GINKGO BILOBA* EFFECTS ON MICE FETAL LIVER”  
Uruj Zehra, Mohammad Tahir, Fahim H Jaffery, Khalid P Lone  
Study was conducted in University of Health Sciences, Wah Medical College Wah Cantt, Pakistan
- 10:10 – 10:20      “CAN THE 14C-UREA BREATH TEST FOR H.PYLORI REPLACE ENDOSCOPY FOR THE ASSESSMENT OF DYSPEPSIA IN PAKISTANI POPULATION?”  
Iqbal Munir, Mohammad Khalid Nawaz, Saima Muzahir, Muhammad Saadullah, Yaqoob Iqbal Khan, Shaukat Khanum Memorial Cancer Hospital & Research Centre  
Lahore, Pakistan
- 10:20 – 10:30      “MAGNITUDE AND DETERMINANTS OF NON-COMPLIANCE AND DEFAULT TO TREATMENT AMONG PULMONARY TUBERCULOSIS PATIENTS UNDER DOTS” (A research study conducted in District Lahore, Pakistan 2006-07)  
Ayesha Humayun<sup>1</sup>, Naheed Humayun Sheikh<sup>2</sup>, Noor Fatima Ahsen<sup>3</sup>, Humaira Iqbal<sup>3</sup>  
Darakshan Badar<sup>4</sup>, Ejaz Qadeer<sup>5</sup>, Anwar Chaudhary<sup>4</sup>, Tahir Saeed<sup>6</sup>, Continental Medical College<sup>1</sup>, Allama Iqbal Medical College<sup>2</sup>, FMH College of Medicine & Dentistry, Lahore, Pakistan<sup>3</sup>, PTP, Punjab<sup>4</sup>, National Tuberculosis Control Program, Rawalpindi, Pakistan<sup>5</sup>, Gulab Devi Chest Hospital, Post Graduate Medical Institute, Lahore, Pakistan<sup>6</sup>
- 10:30 – 10:40      “MULTIPLE DENGUE SEROTYPES AND HIGH FREQUENCY OF DENGUE HEMORRHAGIC FEVER DURING 2008 DENGUE VIRUS OUTBREAK IN PUNJAB, PAKISTAN.”  
Javed Akram, Malik Asif Humayoun  
Allama Iqbal Medical College & Jinnah Hospital, Lahore
- 10:40 – 10:50      “EFFECT OF HIGH DOSE THIAMINE ON THE LEVELS OF PROTEIN BIOMARKERS IN DIABETES MELLITUS TYPE 2”  
Samreen Riaz<sup>1</sup>, Saadia Shahzad Alam<sup>2</sup>, Naila Rabbani<sup>3</sup>, Paul J Thornalley<sup>4</sup>, M. Waheed Akhtar<sup>1</sup>, University of the Punjab Lahore, Pakistan<sup>1</sup>, Federal Postgraduate Medical Institute<sup>2</sup>, Shaikh Zayed Hospital<sup>3</sup>, Clinical Sciences Research Institute, University of Warwick, Coventry CV2 2DX, U.K.<sup>4</sup>
- 10:50 – 11:00      “NEED TO REVISIT OUR ETHICS OF MEDICAL PHOTOGRAPHY”  
Faisal Nazeer Hussain, Fatima Jinnah Medical College, Lahore.

## Scientific Session – II

Chairperson: Prof. Mohammad Tahir, Dept. of Anatomy, UHS, Lahore, Pakistan

Co-Chairperson: Dr. Mohammad Khalid Nawaz, Dept. of Nuclear Medicine, Shaukat Khanum Memorial Cancer Hospital & Research Centre, Lahore, Pakistan

- 11:00 – 11:25** *Invited Lecture II – “SILENCING THE CANCER GENES: A NEW THERAPEUTIC PARADIGM.”*  
**Ishrat Waheed**, MPhil, PhD, PDCS, HEC Foreign Prof./Head, Pharmacology & Therapeutics, Riphah Institute of Pharmaceutical Sciences, Riphah International University, Islamabad, Pakistan
- 11:25 – 11:35 “INVESTIGATING THE ROLE OF MIRNAS IN INITIATION AND PROGRESSION OF DIFFERENTIATION OF MOUSE CARDIAC STEM CELLS”  
Aftab Ahmad<sup>1</sup>, Edilamar M de Oliveira<sup>1</sup>, Yao Liang Tang<sup>2</sup>, Keping Qian<sup>2</sup>, Jeping Shen<sup>2</sup>, Luvena Ong<sup>3</sup>, M.Ian Phillips<sup>4</sup>, University of the Punjab, Lahore, Pakistan<sup>1</sup>, University of Sao Paulo, Sao Paulo, Brazil<sup>2</sup>, Keck Graduate Institute, Claremont, CA, USA, MIT<sup>3</sup>, Cambridge, MA, USA<sup>4</sup>
- 11:35 – 11:45 “COMPARISON OF GROSS CYSTIC DISEASE FLUID PROTEIN (GCDFP-15) EXPRESSION IN PRIMARY AND METASTATIC BREAST CARCINOMAS”  
Imrana Bashir, Samina Mansoor, Shaukat Khanum Memorial Cancer Hospital & Research Centre Lahore, Pakistan
- 11:45 – 11:55 “PREVALENCE OF TP53 MUTATIONS IN PAKISTANI FEMALE BREAST CANCER PATIENTS”  
Ishrat Aziz<sup>1</sup>, Qasim Ahmed<sup>2</sup>, A.R. Shakoori<sup>1</sup>, University of the Punjab<sup>1</sup>, Shaukat Khanum Memorial Cancer Hospital and Research Centre, Lahore, Pakistan<sup>2</sup>
- 11:55 – 12:05 “GENOTYPE FREQUENCIES OF SELECTED DRUG METABOLIZING ENZYMES AND A.B.C. DRUG TRANSPORTERS AMONG BREAST CANCER PATIENTS ON F.A.C. CHEMOTHERAPY.”  
1Afsar NA, 2Haenisch S, 3Mateen A, 4Usman A, 2Ufer M, 1Ahmed KZ, 1Ahmad HR, 2Cascorbi I.  
1Ziauddin University, Clifton Campus, Karachi, 2Institute of Experimental and Clinical Pharmacology, University Kiel, Germany, 3Karachi Institute of Radiotherapy and Nuclear Medicine, Karachi, 4Jinnah Postgraduate Medical Center, Karachi
- 12:05 – 12:15 “INCIDENCE OF PAP SMEAR BASED CYTOLOGICAL ABNORMALITIES IN A GROUP OF PAKISTANI WOMEN”  
Noreen Zafar, Doctors Hospital, Lahore, Pakistan
- 12:15 – 12:25 “PODOPLANIN AND BETA-2-MICROGLOBULIN AS MARKERS OF METASTATIC DISEASE IN EARLY TONGUE CANCER”  
Sabeen Faiz<sup>1</sup>, Muhammad Tehseen<sup>1</sup>, Rafay Azhar<sup>1</sup>, Qasim Ahmed<sup>1</sup>, Omer Farooq<sup>2</sup>, Raza Hussain<sup>1</sup>, Arif Jamshed<sup>1</sup>, Fatima Khwaja<sup>1</sup>, Shaukat Khanum Memorial Cancer Hospital & Research Center<sup>1</sup> and Lahore University of Management Sciences, Lahore, Pakistan<sup>2</sup>.
- 12:25 – 12:50** *Invited Lecture III - "PRINCIPLES OF CHEMOTHERAPY, TARGETED THERAPIES AND TRANSLATIONAL STUDIES IN CANCER"*  
**Dr. Syed A. Hussain** (MD), Clinical Senior lecturer in Oncology Cancer Research UK, Institute for Cancer Studies, University Hospital Birmingham

**12:50 – 13:45 Poster Session / Lunch / Prayer Break**

**Scientific Session – III**

Chairperson: Prof. Perwaiz Iqbal, Dept. of Biological & Biomedical Sciences, AKU Hospital, Karachi, Pakistan

Co-Chairperson: Dr. Saqib Mahmood, Dept. of Human Genetics and Molecular Biology UHS, Lahore, Pakistan

13:45 – 13:55 “STEREOTACTIC RADIOSURGERY (SRS) IN PAKISTAN”  
Azhar Rashid, Muhammad Abid Saleem, Muhammad Ali Memon, Naveed Ahmed, A Sattar M Hashim, Neurospinal & Medical Institute Karachi, Pakistan

13:55 – 14:05 “COMPARISON OF ELECTROMYOGRAPHY / NERVE CONDUCTION STUDIES AND MAGNETIC RESONANCE IMAGING IN DIAGNOSIS OF LUMBOSACRAL RADICULOPATHY”  
Waseem Iqbal, Nadeem Ahmad, Aamir Waheed Butt, AF Institute of Rehabilitation Medicine, Rawalpindi, Pakistan

14:05– 14:15 “VARIATION IN DISC DIFFUSION SUSCEPTIBILITY RESULTS FOR ACINETOBACTER SPP. WITH TIGECYCLINE”  
Mudassar Majeed, Imran Aslam, Sheraz Younas, Farhana Butt, Shaukat Khanum Memorial Cancer Hospital & Research Centre, Lahore, Pakistan

14:15 – 14:25 “PREVALENCE OF SELF MEDICATION AMONG MEDICAL STUDENTS AND ITS RELATIONSHIP TO SELF REPORTED DISTRESS”  
M. Nauman Arif Jadoon, Ali Raza, M. Asif Shehzad, Kamran Siddiqui, Nishtar Medical College, Multan, Pakistan

14:25 – 14:35 “PUBERTAL DEVELOPMENT AND GROWTH AMONG BOYS IN A SAMPLE OF LOCAL PAKISTANI POPULATION”  
Asima Karim, M. N. Afzal, University of Health Sciences, Lahore, Pakistan

14:35 – 14:45 “NUTRITIONAL AND TOXIC HEAVY METAL ANALYSIS OF SEASONAL VEGETABLES OF LAHORE”  
Mariam Sohail, Shujaat Shahida, Sherin Lubna, Saeed Asma, Lahore College for Women University, PCSIR Laboratories, Lahore, Pakistan

**Scientific Session – IV**

**14:45 – 16:25 WORKSHOP ON SCIENTIFIC WRITING AND REVIEW OF POSTERS**

Chairperson: Dr. Faisal Sultan, Department of Medicine and Infectious Diseases, Shaukat Khanum Memorial Cancer Hospital & Research Centre, Lahore, Pakistan

Co-Chairperson: Dr. Abrar Ahmed Javed, Consultant Oncologist, Nishtar Hospital Multan, Pakistan

14:45 – 15:10 GRANT WRITING AND GRANTSMANSHIP  
Prof. Nausherwan Khan Burki, University of Connecticut Health Center, Farmington, USA, (20 minutes + 5 minutes Q & A)

15:10 – 15:45 MANUSCRIPT – 1A: WHEN ARE DATA APPROPRIATE FOR A MANUSCRIPT?  
Prof. Perwaiz Iqbal, AKU Hospital, Karachi, Pakistan, (15 minutes)

MANUSCRIPT – 1B: GENERAL FORM AND COMPONENTS  
Prof. Muhammad Ayub, Ayub Medical College, Abbottabad, Pakistan, (15 minutes)  
Discussion: (5minutes Q & A)



- 15:45 – 16:10    MANUSCRIPT – 2: AUTHORSHIP, JOURNAL REQUIREMENTS, AND RESPONSES TO REFEREES FOR REVISION.  
Dr. Syed Asad Ali, Dept. of Paediatrics and Child Health, Aga Khan University,  
(20 minutes + 5 minutes Q & A)
- 16:10 – 16:25    Roundtable Discussion  
M. Ayub, Perwaiz Iqbal, Asad Ali, Nausherwan Khan Burki (15 minutes)
- 16:25 – 16:50    Poster Presentations – 5 Key Posters will be selected for short presentations.
- 16:50 – 17:00    Concluding Remarks by Prof. Nausherwan Khan Burki  
Announcement of Award for Best Oral and Poster Presentations
- 17:00 – 17:30    General Body Meeting (Executives Members only)**

## POSTER PRESENTATIONS

1. "INCIDENCE OF GESTATIONAL THYROID HORMONE DEFICIENCY: A RISK FOR NEURO-INTELLECTUAL DEVELOPMENT OF CHILDREN IN LAHORE."  
Shan Elahi, Saeed Ahmad Nagra<sup>1</sup>, Muhammad Naeem and M. Ajmal Khursheed  
Centre for Nuclear Medicine (CENUM), Mayo Hospital and <sup>1</sup>University of the Punjab, Lahore
8. "QUALITY OF LIFE IN GASTROESOPHAGEAL CANCER PATIENTS AFTER SURGERY."  
Waseem Shehzad Rao, Nauman Arif Jadoon, M. Asif Shehzad  
Multan Institute of Nuclear Medicine & Radiotherapy, Multan
- 8a. "ASSOCIATION OF CLINICAL AND LIFESTYLE FACTORS WITH PREVALENCE OF DEPRESSION IN DIABETES PATIENTS."  
M. Asif Shehzad, M. Nauman Arif Jadoon, Waqar Munir, Irfan Bashir  
Nishtar Medical College, Multan
10. "MEDICAL TEACHER IMMEDIACY AND STUDENTS LEARNING BEHAVIOR."  
Tariq Manzoor, Muhammad Ibrahim  
FMH-IAHS, FMH College of Medicine and Dentistry, Lahore
11. "SEROPREVALENCE OF TRANSFUSION TRANSMISSIBLE INFECTIONS (TTIS) IN BLOOD DONORS AT GHURKI TRUST TEACHING HOSPITAL, LAHORE."  
Iram Manzoor  
Ghurki Trust Teaching Hospital, Lahore.
12. "ASSESSMENT OF OBESITY, ITS CAUSES AND ASSOCIATED RISK FACTORS AMONG MALE MUSLIM RELIGIOUS CLERICS AND TEACHERS (AOCAF Study)"  
Javed, M. Usman, Osama Mushtaq, Junaid Hanif, Mahroz Khalid, M Junaid Akram, Rabail Qureshi, Rizwana Salik Nukrich, Dr SM Mubin  
Hamdard College of Medicine & Dentistry, Hamdard University, Karachi
13. "IDENTIFICATION OF RISK FACTORS OF HEPATITS B IN PARACHINAR, NWFP, PAKISTAN IN 2008-2009."  
Perveen<sup>1</sup>, F., Turi<sup>2</sup>, I. H. and Khattak<sup>2</sup>, R. M. and Saleha<sup>2</sup>, S.  
Hazara University<sup>1</sup>, Mansehra, KUST<sup>2</sup>
14. "LA NIÑA AND THE DENGUE FEVER EPIDEMIC IN LAHORE."  
M. Nauman Arif Jadoon  
Nishtar Medical College, Multan.
16. "VALUE OF THREE SPUTUM SMEARS MICROSCOPY IN DIAGNOSIS OF PULMONARY TUBERCULOSIS."  
Saleem Shumaila, Shabbir Iffat, Iqbal Rizwan, Saulat Ullah Khan  
Pakistan Medical Research Council TB Research Centre KEMU Lahore
19. "C-REACTIVE PROTEIN CONCENTRATION AND SEVERITY OF CORONARY ARTERY DISEASE."  
Shahida Amjad Riaz Shah, Mariam Mustafa Farooqi  
Sheikh Zayed Medical Complex, Lahore
22. "ASSOCIATION OF RIBOSOMAL ANTI-P ANTIBODIES WITH DIFFERENT PARAMETERS OF LUPUS."  
Nageen Hussain Ghazala Jaffery<sup>2</sup> and Shahida Hasnain<sup>1</sup>  
<sup>1</sup>Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore.  
<sup>2</sup>Services Institute of Medical Sciences, Lahore

23. "FACTORS AFFECTING MEDICAL SPECIALTY PREFERENCES AND GENDER DIFFERENCES IN FOURTH YEAR MBBS STUDENTS OF A PRIVATE MEDICAL COLLEGE IN LAHORE."  
Noreen Rahat Hashmi  
Lahore Medical and Dental College, Lahore
24. "TELEVISION VIEWING HABITS AND SLEEP DISTURBANCES IN SCHOOL AGE CHILDREN OF MULTAN."  
Rehan Yaqoob, Nauman Arif Jadoon, M. Asif Shehzad, Waqar Munir, M. Ijaz Hussain.  
Nishtar Medical College, Multan.
- 24a. "HEPATITIS B VACCINATION STATUS OF HEALTH CARE WORKERS AT A TERTIARY CARE HOSPITAL IN MULTAN"  
Rehan Yaqoob, Nauman Arif Jadoon, Muhammad Asif Shehzad, Ali Raza, M. Ijaz Hussain.  
Nishtar Medical College, Multan.
26. "KNOWLEDGE, BELIEFS AND ATTITUDE OF PATIENTS REGARDING TUBERCULOSIS IN MULTAN."  
M. Ijaz Hussain, Nauman Arif Jadoon, Waqar Munir, M. Asif Shehzad, Rehan Yaqoob.  
Nishtar Medical College, Multan.
28. "IDENTIFICATION OF MYCOBACTERIUM TUBERCULOSIS COMPLEX USING BACTEC MGIT 960."  
Abdul Hannan, Saadia Chaudary, Amna Hafeez  
Department of Microbiology, UHS, Lahore.
29. "CHALLENGES FACED BY GENERAL PRACTITIONERS IN RAWALPINDI AND ISLAMABAD IN MANAGEMENT OF TUBERCULOSIS: A QUALITATIVE STUDY."  
Saima Iqbal, Mati ur Rahman  
Shifa College of Medicine, Islamabad
31. "STUDY OF STIGMA ASSOCIATED WITH MENTAL ILLNESS IN MEDICAL STUDENTS AND ROLE OF MEDICAL EDUCATION IN THIS RESPECT."  
Syed Usman Hamdani, Muhammad Saad, Ghulam Fatima, Faiza Aslam, Fareed A. Minhas  
Rawalpindi Medical College, Rawalpindi.
32. "SLEEP PATTERNS AMONG SCHOOLCHILDREN AND THE PREVALENCE OF SLEEP PROBLEMS AND BEHAVIOR DISORDERS."  
Waqar Munir, Nauman Arif Jadoon, Kamran Siddiqui, M. Asif Shehzad, Rehan Yaqoob, M. Ijaz Hussain.  
Nishtar Medical College, Multan.
33. "ANTI-HCV DETECTION, A COMPARISON BETWEEN ELISA & ICT."  
Abu Bakar Imran, Muhammad Ibrahim  
FMH-IAHS, FMH College of Medicine and Dentistry Lahore
36. "ASSOCIATION OF PERIODONTAL STATUS WITH GLYCEMIC CONTROL IN TYPE 2 DIABETES."  
Muhammad Haseeb, Khadija Irfan Khawaja<sup>2</sup>, Aziz Fatima<sup>2</sup>, Bader Munir<sup>1</sup>  
Punjab Dental Hospital Lahore<sup>1</sup>, Services Hospital<sup>2</sup>, Lahore.
37. "EFFECTS OF BISPECTRAL INDEX MONITORING ON ISOFLURANE CONSUMPTION, HEMODYNAMICS AND RECOVERY FROM ANESTHESIA IN ELDERLY PATIENTS."  
Faraz Shafiq, Hamid Iqil Naqvi, Aliya Ahmed  
Aga Khan University Hospital Karachi

38. "TRENDS OF THYROID DYSFUNCTION ASSOCIATED WITH LARGE GOITER SIZE."  
Humaira Rasheed<sup>1</sup> and Shan Elahi  
Mayo Hospital, Lahore
41. "ALLRED SCORING FOR ER REPORTING AND IT'S IMPACT IN CLEARLY DISTINGUISHING ER NEGATIVE FROM ER POSITIVE BREAST CANCERS."  
Asim Qureshi, Shahid Pervez  
Shaukat Khanum Memorial Cancer Hospital & Research Centre Lahore, Aga Khan University Karachi.
43. "DIAGNOSTIC UTILITY OF P63 IN DIFFERENTIATING PROSTATIC ADENOCARCINOMA AND UROTHELIAL CARCINOMA."  
Samina Mansoor, Nasir-ud-Din  
Shaukat Khanum Memorial Cancer Hospital & Research Centre, Lahore
44. "STUDY OF DIABETIC HYPERTENSIVE NEPHROPATHY IN THE LOCAL POPULATION OF PAKISTAN."  
Ansa Butt<sup>1</sup>, Samreen Riaz <sup>1</sup>, Saadia Shahzad Alam<sup>2</sup>, M. Waheed Akhtar<sup>3</sup> and Shahida Hasnain<sup>1</sup>  
Department of Microbiology & Molecular Genetics<sup>1</sup>, and School of Biological Sciences<sup>3</sup>, University of the Punjab<sup>1,3</sup> Lahore. Federal Postgraduate Medical Institute, Shaikh Zayed Hospital<sup>2</sup>, Lahore.
45. "CHANGES IN BLOOD PROTEIN PROFILE, HEMATOLOGY AND LIVER HISTOLOGY IN WATER DEPRIVED RATS."  
Iqbal Marium  
University of the Punjab, Pakistan.
46. "PSYCHIATRIC MORBIDITY AMONG DENTAL STUDENTS IN PAKISTAN."  
Ali Raza, Nauman Arif Jadoon, Rehan Yaqoob, Zeshan Sharif Ch., Muhammad Asif Shehzad.  
Nishtar Medical College, Multan.
47. "FACTORS AFFECTING SLEEP DURATION OF A SAMPLE OF PAKISTANI CHILDRE."  
Kamran Siddiqui, Nauman Arif Jadoon, Waseem Shahzad Rao, Rehan Yaqoob, M.Asif Shehzad, Waqar Munir.  
Nishtar Medical College, Multan.
48. "TRAINING OF NON-PHYSICIAN PRACTITIONERS TO IDENTIFY AND REFER DIABETIC PATIENTS"  
Ahmed Shuja Khan<sup>1</sup>, Rizwana Kitchlew<sup>2</sup>, Amir Omair<sup>2</sup>, Khayyam Shamsher<sup>2</sup>, Ahmad<sup>2</sup>, Syed Agha Abbas Haider<sup>2</sup>, Ayesha Humayun<sup>3</sup>,  
Central Park Medical College<sup>1</sup>, Lahore, FMH College of Medicine & Dentistry<sup>2</sup>, Lahore, Continental Medical College<sup>3</sup>, Lahore.
49. "FOURNIERS GANGRENE: DON'T DELAY IT"  
K.H.BHATTI  
Jinnah Hospital, Lahore
51. "DETECTION OF CARBAPENEM RESISTANCE IN SAMPLES RECEIVED AT SHAUKAT KHANUM HOSPITAL LABORATORY."  
S.Younas, S.Mukhtar, Farhana Butt  
Shaukat Khanum Memorial Cancer Hospital and Research Centre, Lahore.
52. "DETECTION OF INDUCIBLE AMPC BETA-LACTAMASE IN SAMPLES RECEIVED AT SHAUKAT KHANUM HOSPITAL LABORATORY."  
Zunaira Rao, S Sattar, Farhana Butt.  
Shaukat Khanum Memorial Cancer Hospital and Research Centre, Lahore.

55. "PERCEPTION OF DOCTORS WORKING AT A TERTIARY CARE HOSPITAL OF KARACHI REGARDING KNOWLEDGE UPGRADATION THROUGH INTERACTIONS WITH PHARMACEUTICAL REPRESENTATIVES."  
Faraz Arif, Seema Mumtaz<sup>2</sup>, Hina Sajid<sup>1</sup>  
Institute of Business Management<sup>1</sup>, Karachi, Hamdard University<sup>2</sup>, Karachi
57. "FIRST FEED IN NEWBORN BABIES - ARE WE FOLLOWING WHO RECOMMENDATIONS?"  
Muhammad Faheem Afzal, Syed Muhammad Javed Iqbal, Muhammad Ashraf Sultan  
King Edward Medical University/ Mayo Hospital, Lahore.
58. "LEARNING STYLE OF STUDENTS AT A MEDICAL COLLEGE."  
Nauman Arif Jadoon, M. Asif Shehzad, Waseem Shahzad Rao  
Nishtar Medical College, Multan.
60. "STUDY OF METHICILLIN-RESISTANT *STAPHYLOCOCCUS AUREUS* IN A TERTIARY CARE HOSPITAL."  
Zaeema Khan, Saba Riaz, Shahida Hasnain  
University of the Punjab, Lahore
61. "HISTOPATHOLOGICAL CHARACTERISTICS AND HORMONE RECEPTOR STATUS OF METAPLASTIC BREAST CARCINOMA IN PAKISTAN."  
Samina Mansoor, Farhana Bashir, M. Tehseen, R. Butt, M. Usman Rashid  
Shaukat Khanum Memorial Cancer Hospital & Research Centre, Lahore
62. "PRIMARY TRIAGE, EVACUATION PRIORITIES AND RAPID PRIMARY DISTRIBUTION BETWEEN ADJACENT HOSPITALS — LESSONS LEARNED FROM A SUICIDE BOMBER ATTACK AT MALL, LAHORE."  
Ania Fida, Gul Afshan, Mehreen Mehmood  
King Edward Medical University Lahore
63. "SURVIVAL PROBABILITY OF PLASMODIUM FALCIPARUM AGAINST CHLOROQUINE IN PUNJAB, PAKISTAN."  
Muhammad S. Rana<sup>1</sup>, Tanveer, A.<sup>2</sup> and Ammara H. Tahir<sup>2</sup>  
D.G. Health Services <sup>1</sup>, University of the Punjab<sup>2</sup>, Lahore. Allama Iqbal Medical College<sup>3</sup>, Lahore.
64. "ROLE OF HEALTHCARE PROVIDERS IN DELIVERING BREASTFEEDING INFORMATION TO MOTHERS."  
Hina Sajid<sup>1</sup>, Seema Mumtaz<sup>2</sup>, Faraz Arif<sup>2</sup>  
Institute of Business Management<sup>1</sup>, Karachi, Hamdard University<sup>2</sup>, Karachi,
65. "CYTO - HISTOLOGICAL CORRELATION OF FRESH VOIDED URINE CYTOLOGY AND CYSTOSCOPIC BLADDER BIOPSY IN THE DIAGNOSIS OF UROTHELIAL CARCINOMA."  
Muhammad Imran, Noshin Yusuf  
Allama Iqbal Medical College Lahore
66. "FREQUENCY OF BCR-ABL FUSION ONCOGENE IN ADULT AND PEDIATRIC ACUTE LYMPHOBLASTIC LEUKEMIA (ALL) IN PAKISTAN: IMPLICATION IN DIFFERENTIAL DIAGNOSIS, PROGNOSIS AND TREATMENT IN IMATINIB/POST-IMATINIB ERA."  
Iqbal Z<sup>1,2,14\*</sup>, Tanveer A<sup>1</sup>, Iqbal M<sup>1,3</sup>, Ferhan M<sup>4,5</sup>, Baig SM<sup>5</sup>, Naqvi MI<sup>1,6</sup>, Naeem M<sup>5</sup>, Aziz Z<sup>7</sup>, Tahir AH<sup>8</sup>, Gill TJ<sup>8</sup>, Shah IH<sup>9</sup>, Khalid M<sup>9</sup>, Taj AS<sup>10</sup>, Jameel A<sup>11</sup>, Abd-ul-Qayyum<sup>12</sup>, Ur-Rehman N<sup>13</sup>, Qin WX<sup>2,14</sup>, Chen SJ<sup>2,14</sup>, Khalid AM<sup>5,15</sup>  
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- 66a. "FREQUENCY OF BCR - ABL SPLICE VARIANTS IN CHRONIC MYELOID LEUKEMIA (CML) AND THEIR RESPONSE TO IMATINIB (GLEEVEC) TREATMENT."  
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<sup>1</sup>University of the Punjab, Lahore, Pakistan; <sup>2</sup>Shaukat Khanum Memorial Cancer Hospital & Research Centre, Lahore, <sup>3</sup>Kyrgyz State Medical Academy (KSMA), Bishkek, Kyrgyzstan; <sup>4</sup>Department of Biostatistics and Bio-computation, NK-FACT, Lahore, <sup>5</sup>Jinnah Hospital, Lahore, <sup>6</sup>Allama Iqbal Medical College, Lahore, <sup>7</sup>Gov't College University Faisalabad
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- 69a. "DETERMINANTS OF CHILDHOOD OVERWEIGHT OR OBESITY IN SCHOOL GOING CHILDREN IN KARACHI: A CHILD AND PARENT PERSPECTIVE"  
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- 69b. "PERCEPTIONS OF CONTRIBUTORS TO CHILDHOOD OVERWEIGHT OR OBESITY: A PARENT AND CHILD VIEWPOINT THROUGH FOCUS GROUP DISCUSSIONS."  
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70. "CHARACTERISTICS AND METABOLIC PROFILE OF PATIENTS WITH TYPE 2 DIABETES MELLITUS AT A TERTIARY CARE CENTER IN PAKISTAN."  
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- 70a. "OUTCOME OF PITUITARY SURGERY IN PATIENTS PRESENTING WITH PITUITARY ADENOMA AT A TERTIARY CARE CENTRE IN PAKISTAN."  
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- 70b. "MIDDLE AGED MALE WITH PULMONARY TUBERCULOSIS AND REFRACTORY HYPERCALCEMIA AT A TERTIARY CARE CENTRE IN SOUTH ASIA: A CASE REPORT."  
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71. "EVALUATION OF LABORATORY AND FIELD EFFICACY OF BACILLUS THURINGIENSIS AND BACILLUS SPHAERICUS AGAINST AEDES ALBOPICTUS LARVAE IN WATER STORAGE CONTAINERS."  
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75. "GASTROINTESTINAL ABNORMALITIES ARE MORE COMMON IN VITAMIN B12 DEFICIENT PATIENTS WITH MEGALOBlastic ANEMIA."  
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76. "EVIDENCE – BASED EDUCATIONAL PLANNING, THE WAY FORWARD- A PRACTICAL EXAMPLE OF AN UNDERGRADUATE MEDICAL EDUCATION PROGRAMME."  
Ayesha Sumera Abdullah, Mohammad Saqib Qureshi, Hafeez ur Rahman, Najib ul Haq  
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80. "ASSESSMENT OF HEAVY METALS IN LOCAL COSMETIC PRODUCTS BY ATOMIC ABSORPTION SPECTROPHOTOMETER  
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81. "IMPACT OF DIURETIC AND DIGOXIN ON SERUM MAGNESIUM LEVEL IN HEART FAILURE PATIENTS  
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University of Health Sciences
86. "OVERVIEW OF 60 YEARS HEALTH IN PAKISTAN."  
M Shafiquddin  
Helping Hand for Relief and Development (HHRD), Pakistan. Islamabad

87. "SMALL SKELETAL MUSCLE AUTOGRAFTS IN RATS AS A MODEL FOR EVALUATING STRATEGIES TARGETING RECOVERY OF MUSCULAR INJURIES  
Javed I. Qazia<sup>1</sup>, Shahzad A Muftib<sup>2</sup>  
University of the Punjab<sup>1</sup>, Lahore, University of Information Technology<sup>2</sup>, Islamabad
88. "SELF-REPORTED NEEDLE-STICK INJURIES AMONG DENTISTS IN LAHORE."  
Ali Raza<sup>1</sup>, Afifa Ehsan<sup>2</sup>  
Nishtar Institute of Dentistry<sup>1</sup>, Multan, Lahore Medical and Dental College<sup>2</sup>, Lahore.
90. "A COMPARISON OF EXTENDED-SPECTRUM B-LACTAMASE DETECTION METHODS AVAILABLE IN A ROUTINE LABORATORY IN PAKISTAN."  
M. Sarfraz Gondal, Zunaira Rao, Farhana Butt.  
Shaukat Khanum Memorial Cancer Hospital and Research Centre, Lahore.



**KEYNOTE LECTURES**

*Keynote Lecture – 1*

**“HCV INDUCED LIVER PATHOGENESIS”**

Ishtiaq Qadri

Director General National University of Science & Technology (NUST), Center of Virology & Immunology,  
Rawalpindi, Pakistan

Among the hepatitis viruses, hep. C virus (HCV) is a major etiologic causative agent of chronic hepatitis, cirrhosis and hepatocellular carcinoma and is the leading cause of chronic liver disease worldwide (Anonymous, 2000; CDC, 1998). The hallmark of the disease is its propensity to evolve into chronicity, probably because viral heterogeneity that allows the virus to escape immune-mediated neutralization (Shoukry et al., 2004; Luo, 2004; Le Gillulo-Guillemetta, 2007). Chronic infection is strongly associated with, inflammation, insulin resistance, fibrosis, steatosis, cirrhosis and the development of hepatocellular carcinoma (Berke and Moradpour, 2005). Pakistan is a developing nation of 160 million people and many regions of the country have alarmingly high rate of uncontrolled outbreaks of hepatitis C virus (Bari et al., 2001; Kabir et al., 2006; Sy and Jamal, 2006 and Anonymous, 2000). This virus has the potential to be very deadly and spread very rapidly in communities, thus causing a huge financial burden (Alter, and Seeff, 2000; Schimotohn, 2000). Health care staff and doctors are poorly equipped to handle and study of deadly viruses. Containment and treatment options are very limited in the case of epidemic and pandemic. There are very few trained specialized virologists in Pakistan and unfortunately there are no federal or provincial guidelines/protocols for safe handling and management of HCV.

*Keynote Lecture – 2*

***SILENCING THE CANCER GENES: A NEW THERAPEUTIC PARADIGM***

Ishrat Waheed

Riphah Institute of Pharmaceutical Sciences, Riphah International University, Islamabad,  
Pakistan.

Oncogenesis is often characterized by the relentless accumulation of malignant cells that express deregulated or mutated oncogenes and/or tumor suppressor genes to assume a less differentiated and immortalized state. The effectiveness of the conventional chemotherapy is often limited by its relative non-selectivity towards cancer targets that results in severe toxicity in the healthy cells. Cancer gene silencing is a targeted approach that uses specific RNA interfering antisense oligonucleotides to destroy the oncogene RNA before it is translated in to a malignant protein. This strategy spares the healthy cells that do not express the malignant genes. In B-cell leukemia, for example, several bcl-2 family oncogenes are upregulated and may contribute to the in-vivo progression of the disease. Another prominent feature of chronic lymphocytic leukemia (B-CLL) cells is the over-expression of CD23, a transmembrane glycoprotein, which imparts resistance to cell death and increases cell survival. It has been recently shown that both CD23 and Bcl2 genes are transcriptionally upregulated by an aberrant Notch2 signaling pathway. Thus Notch2 contributes directly to the enhanced survival and proliferation of the cancerous B-cells. In the present study, the therapeutic potential of RNA interfering oligonucleotides against the Notch2 and CD23 oncogene expression in B-CLL was explored. Targeted inhibition of Notch2 and CD23 mRNA by their respective RNA interfering antisense oligonucleotides in cultured B-CLL cells led to a sharp decline in cell proliferation and survival. Moreover, the mRNA expression of Bcl2, a Notch2 regulated oncogene, was also sharply reduced. These observations strongly indicate that the RNA interfering oligonucleotides can be effectively used in clinical settings to treat malignancies involving deregulated oncogenes.

*Keynote Lecture – 3*

**“PRINCIPLES OF CHEMOTHERAPY, TARGETED THERAPIES AND  
TRANSLATIONAL STUDIES IN CANCER”**

Syed A Hussain

Cancer Research UK, Institute for cancer studies, University of Birmingham, B15 2TT, United Kingdom

The existence of an array of potential new therapies is the result of a prodigious effort in the researching and defining of the molecular components of the cancer phenotype, and the subsequent rational design of agents to target candidate pathways. Experience with endocrine therapy has shown that targeted therapies require the target to be not merely expressed in the cancer phenotype, but important in regulating growth of cancer cells. We may well look back at many of the current targeted therapy trials as unrealistically simplistic in failing to adequately and define the target phenotype. This approach risks rejecting highly active treatments for a small subgroup of a study population where minimal activity is present for the majority. The future for cancer therapy is promising, but it is important to be prepared for disappointment, as early success in animal models cannot guarantee a successful human therapy. Stunning results such as the adjuvant trastuzumab trials in breast cancer are likely to remain the exceptions rather than the rule and most gains will be modest advances.

A better understanding of the molecular biology of cancer may also aid in guiding the most appropriate use of existing therapies such as conventional chemotherapy. This knowledge will facilitate the rational selection of drug combinations and/or sequencing based on their mechanisms of action at a molecular level. The most important change that will emerge over the coming decade for management of cancer is the shift from conventional chemotherapy and radiotherapy to novel targeted therapies. The key now is to define the patient population most likely to benefit from these agents through identification of clinical and biological markers indicating a sensitive tumour phenotype. The ongoing clinical development of signal transduction inhibitors presents several challenges to the existing dogma of clinical trial design. For example, in early phase trials the traditional endpoint of objective response rate may not be the most useful in selecting cytostatic agents, which nevertheless may possess clinically relevant activity. Rather, such trials should focus on the *in vivo* measurement of biological activity in order to define the optimum schedule of treatment that results in maximal inhibition of the therapeutic target. In later phase trials, endpoints such as progression free survival may be more useful than response rate, although of course there is no substitute for the endpoints of overall survival and quality of life, improvements in which these agents must demonstrate for them to be accepted into the cancer treatment armamentarium. The integration of small molecules and multi-kinase inhibitors with existing therapies should be based on robust pre-clinical data indicating potentially beneficial additive or even synergistic interactions. The correct clinical management strategy can be guided by preclinical modelling but can only be validated by carefully designed clinical trials. These will at the very least need to be conducted with correlative translational research elements that will allow us to select the most appropriate treatment strategy for individual patients.

**ORAL PRESENTATIONS**

## **ABSTRACT – 7**

“MULTIPLE DENGUE SEROTYPES AND HIGH FREQUENCY OF DENGUE HEMORRHAGIC FEVER DURING 2008 DENGUE VIRUS OUTBREAK IN PUNJAB, PAKISTAN.”

Javed Akram, Malik Asif Humayoun  
Allama Iqbal Medical College & Jinnah Hospital, Lahore

### **Objectives/Aims:**

The objective of the study is to investigate the clinical characteristics of patients with Dengue viral infection during the 2008 outbreak in the Punjab in order better understand the clinical and endemic pattern and severity of disease in Pakistan.

### **Method:**

We analyzed the clinical characteristics of 110 patients infected with Dengue virus on standardized data collection sheets at two teaching Hospitals from September to December 2008. Dengue infection was confirmed by ELISA or RT-PCR

### **Results:**

Out of total of 110 patients, 70 were male, while 40 were female. Most common symptoms included fever 100%, myalgia 68.5%, headache 55.4%, nausea 39% skin rash 53.7%, and ocular pain 20%. Classic DF was seen in 36.4% of the patients whereas 63.6% had DHF, and only 1.8% developed DSS. Mean duration of fever was 6 days. Thrombocytopenia, leucopenia and abnormal AST/ALT were more severe in DHF and DSS as compared to DF. Viral RNA detection was done by RT-PCR in 17 patients. 10 patients had DEN 4, five had DEN 2 and two had DEN 3 serotypes. Majority of patients recovered completely without complications.

### **Conclusion:**

High frequency of DHF during 2008 outbreak and the presence of three different dengue serotypes emphasize upon prevention and control of dengue infection, Health authorities should consider strengthening surveillance for dengue infection, given the potential for future outbreaks with increased severity. It is also suggested that primary care physicians should be educated regarding recognition of DHF and to identify patients at high risk for developing DHF and DSS.

## **ABSTRACT – 9**

“PUBERTAL DEVELOPMENT AND GROWTH AMONG BOYS IN A SAMPLE OF LOCAL PAKISTANI POPULATION.”

A. Karim, M. N. Afzal  
University of Health Sciences Lahore

### **Objectives/Aims:**

Few studies are available on the temporal sequence and effect of ethnicity, socioeconomic status and environment on pubertal changes leading to sexual maturation in boys; therefore, we describe normative values for developmental changes in physical and endocrine characteristics at onset and during progression of the pubertal process in a cohort of Pakistani boys.

### **Method:**

Body weight, height, appearance of pubic hair patterns and testicular volume (TV) along with serum FSH, LH, testosterone and GH levels were measured (ELISA).

### **Results:**

Pubarche was first recorded at a mean age of 11.3 years [Tanner stage 2]. TV of 3 ml and the first significant increase in mean serum FSH and LH levels were detected at 10 years of age. The mean percent increase in TV/year was maximal from 12-14 years, coinciding with rising testosterone levels. The levels of gonadotropins increased more than 2-fold between 12-14 years. Whereas, LH continued to increase in postpubertal boys and FSH levels plateaued at 15 years. GH concentrations were shown to be maximal at 12-13 years and declined thereafter to prepubertal values. However, BW and height were significantly correlated with age; yet no significant correlation was seen between body mass index (BMI) and age.

### **Conclusion:**

The present data among boys indicates an earlier transition to the Tanner stage 2 and an increase in TV, resulting in a slightly more extended period of pubertal development, as compared to European and American children pointing to ethnic, social and economic differences.

## **ABSTRACT – 14a**

“PREVALENCE OF SELF MEDICATION AMONG MEDICAL STUDENTS AND ITS RELATIONSHIP TO SELF REPORTED DISTRESS.”

M. Nauman Arif Jadoon, Ali Raza, M. Asif Shehzad, Kamran Siddiqui.  
Nishtar Medical College, Multan.

### **Objectives/Aims:**

The objectives of this study were to:

1. Determine the prevalence of self medication among medical students.
2. Find out the relationship of self medication with physical illness.
3. Determine the effect of personal distress on reported self medication.
4. Find out whether presence of depression has any effect on the frequency of self medication.

### **Method:**

The study was carried out in Nishtar Medical College, Multan on a sample of 150 medical students. A self administered questionnaire was used to document the frequency of self medication and sociodemographic data. We used Patient Health Questionnaire 9 (PHQ-9) to determine the presence of depression in medical students. Verbal consent was taken before administering the questionnaire.

### **Results:**

Self medication in last four weeks was reported by 72% of the students. It was found to be more prevalent among male students (OR=2.5, 95% CI= 1.31-4.75,  $p < 0.05$ ). Logistic regression analyses revealed that frequency of self medication was positively related to past month physical illness and personal distress ( $p > 0.05$ ). Reported self medication, however, was not predicted by the presence of depression as measured by PHQ-9 ( $p > 0.05$ ). Most frequently cited reasons for self medication included trivial nature of problem (74%), prescription of same drug by doctor (69%), and past experience with similar symptoms (55%). The common problems for which self medication was being practiced included headache, fever, abdominal discomfort, pain in body and sleep problems.

### **Conclusion:**

The study shows that students reported high levels of self medication which may be alarming due to its potential complications including but not limited to worsening of symptoms, deterioration of health, masking of symptoms of serious disease etc.



## **ABSTRACT – 15**

“EFFECT OF HIGH DOSE THIAMINE ON THE LEVELS OF PROTEIN BIOMARKERS IN DIABETES MELLITUS TYPE 2.”

Samreen Riaz<sup>1</sup>, Saadia Shahzad Alam<sup>3</sup>, Naila Rabbani<sup>4</sup>, Paul J Thornalley<sup>4</sup> and M. Waheed Akhtar<sup>1</sup>  
University of the Punjab<sup>1</sup>, Lahore, Shaikh Zayed Hospital<sup>3</sup>, Lahore, Protein Damage and Systems Biology Research Group, Clinical Sciences Research Institute, University of Warwick<sup>4</sup>, Coventry CV2 2DX, U.K.

### **Objectives/Aims:**

This research work aims to identify and characterize the levels of protein biomarkers specific to diabetes mellitus type 2 and effect of high dose thiamine on these levels as therapy.

### **Method:**

Type 2 diabetic patients, age and sex-matched normal healthy controls were recruited from Sheikh Zayed Hospital, Lahore, Pakistan. Plasma proteins were analysed by 2-D liquid chromatographic system (ProteomeLab PF2D) in which samples were initially fractionated by chromatofocusing and the selected fractions were further analysed by reverse-phase chromatography. The proteins which showed variation between test and control samples were identified by MALDI TOF analysis. Analysis of all the samples belonging to the control, placebo and thiamine treated groups were then analyzed for the four proteins which were found to vary, by ELISA

### **Results:**

Levels of apolipoprotein A-I was found to decrease by -6.4 % while apolipoprotein-E, leptin and C reactive protein (CRP) were found to increase by +802, +218 and +872 %, respectively in the diabetic patients as compared to the controls. The level of CRP decreased by 63% after thiamine therapy as compared to the controls and the placebo while other protein markers did not show a significant change after the therapy. Since CRP level variation has been reported in other pathological sites, role of thiamine may have a significant bearing on the prognosis of such diseases.

### **Conclusion:**

Since CRP level variation has been reported in other pathological sites, role of thiamine may have a significant bearing on the prognosis of such diseases.

## **ABSTRACT – 17**

“COMPARISON OF GROSS CYSTIC DISEASE FLUID PROTEIN (GCDFP-15) EXPRESSION IN PRIMARY AND METASTATIC BREAST CARCINOMAS.”

Imrana Bashir, Samina Mansoor  
Shaukat Khanum Cancer Hospital and Research Centre, Lahore, Pakistan.

### **Objectives/Aims:**

The objectives of the study is to evaluate the concordance of staining pattern of Gross cystic disease fluid protein-15 (GCDFP-15) in primary and metastatic breast carcinomas as to assess its utility as a diagnostic marker for unknown primary breast cancer.

### **Method:**

Between 17 June 2006 to 19 December 2006, Fifty cases of cancer breast found suitable by inclusion criteria were invited for the study. An informed consent was obtained from all of them. The data regarding age, socio-economic status, duration and symptoms of illness, clinical examination and investigation were collected from the hospital record.

The received mastectomy specimens were fixed in 10% buffered neutral formalin.

Representative sections were processed and stained with hematoxylin and eosin to see the tumor morphology. The immunohistochemical stain GCDFP-15 was performed simultaneously on primary and metastatic tumors. Two pathologists assessed the immunohistochemical stains independently. Information obtained was recorded on the Performa. The expression of (GCDFP-15) in primary tumors was compared with the expression of this biomarker in metastatic carcinoma.

### **Results:**

GCDFP-15 expression was compared and positivity was observed in 92% of primary tumors which was reduced to 88% in metastatic. Gross cystic disease fluid protein showed 96% concordance in primary and metastatic tumor.

### **Conclusion:**

GCDFP-15 showed significant concordance of staining pattern between primary and metastatic tumors. 96 % concordance is observed in primary and metastatic tumors, which proves its utility as a diagnostic marker.

## ABSTRACT – 18

“PREVALENCE OF TP53 MUTATIONS IN PAKISTANI FEMALE BREAST CANCER PATIENTS.”

Ishrat Aziz<sup>1</sup>, Qasim Ahmed<sup>2</sup> and A.R.Shakoori<sup>1</sup>.

University of the Punjab<sup>1</sup>, Lahore, Shaukat Khanum Memorial Cancer Hospital and Research Centre<sup>2</sup>, Lahore

### Objectives/Aims:

Study was done on the basis of following objectives:

- To determine the frequency of Sporadic TP53 mutations in Pakistan
- To determine the frequency of TP53 mutations in genetic lineage (subject to, availability of families during the study period)
- Analysis of the data

### Method:

Female breast cancer patients were recruited at Shaukat Khanum Memorial Cancer Hospital & Research Centre and Mayo Hospital, Lahore Pakistan, from January 2005-December 2008. A total 150 sporadic breast cancer patients and three families having breast cancer were included in the study. From all study participants, a blood sample, normal and tumor tissue were collected. A detailed proforma was filled on the basis of informations provided by the patients for determining the status of molecular epidemiology in scenario of different breast cancer risk factors. DNA was extracted from both blood and tissue samples. Polymerase Chain Reaction was standardized for amplification of 5-8 exons (central region) of TP53 gene. TP53 mutation screening of DNA coding region (reported for prevalence of 95% mutations) was performed by Temporal Temperature Gradient Gel Electrophoresis (TTGE). The mutations were reconfirmed by High resolution melting (HRM) for mutation scanning of TP53 exons 5-8 and sequencing. Restriction Fragment Length Polymorphism (RFLP) was used for understanding the status of codon 72 polymorphism (arg/arg) in Pakistan. This nucleotide change has previously been shown to be a functional relevant polymorphism that contributes to breast cancer development. Analysis of the data on the basis of bioinformatics of IARC, R13 provided by International Agency for Research on Cancer was done. The research study was approved by the bioethics committees of the corresponding hospitals.

### Results:

In case of sporadic breast cancer patients following three types of deleterious mutations were detected.

Mutation in codon 248 = CGG to CAG = ARG to GLU = R to Q

Mutation in codon 238 = TGT to TAT = CYS to TYR = C to Y

Mutation in codon 278 = CCT to TCT = PRO to SER= P to S

No TP53 (5-8 exon) mutation was observed in normal and familial samples. During population screening, a family was detected having characters like of a rare disease, Li-Fraumeni syndrome but TP53 mutations are not found in it. Analysis of TP53 gene mutations showed that the mutations detected in Pakistani breast cancer patients are most prevalent in breast cancer patients of the world. Genotypes arg/pro and pro/pro polymorphisms of codon 72, exon 4 of TP53 gene were more significant in Pakistani breast cancer patients as compared to arg/arg, which is more prevalent in the west.

Molecular epidemiology of the TP53 gene mutations in breast cancer patients of Pakistan was studied in scenario of different risk factors for breast cancer. The pattern was different from that of west. The risk factors, which are more influenced in the west are less important due to geographical variations and life style differences.

### Conclusion:

The frequency of TP53 gene mutations in DNA coding region (5-8 exon) is low in Pakistani breast cancer patients. Genotype arg/arg is less prevalent in female breast cancer patients and normal population of Pakistan. Due to geographical variations and life style differences, status of molecular epidemiology is different.

## **ABSTRACT – 27**

### **“STEREOTACTIC RADIOSURGERY (SRS) IN PAKISTAN.”**

Azhar Rashid, Muhammad Abid Saleem, Muhammad Ali Memon, Naveed Ahmed, A Sattar M Hashim  
Neurospinal & Medical Institute Karachi Pakistan

#### **Objectives:**

To describe the current status of stereotactic radiosurgery (SRS) in brain and spine with respect to its clinical indications, efficacy and safety.

#### **Methods:**

Stereotactic Radiosurgery (SRS) was designed to deliver an ablative dose of radiation to the lesion, targeted by stereotactic localization, with a rapid dose falloff, minimizing radiation dose to surrounding normal structures. The only center for stereotactic radiosurgery in Pakistan is Neurospinal & Medical Institute at Karachi, where first Leksell gamma knife machine model 4-C was commissioned on 4th May 2008. Synergy S linear accelerator with On board imager and micro multileaf collimators (MLCs), capable of doing Stereotactic body radiosurgery (SBRT), IGRT, IMRT, 3D conformal treatments was commissioned in June 2009. Over four hundred patients of various intracranial pathologies have been treated on gamma knife. Demographic data will be presented. Extensive literature review from internet search, particularly from PubMed, Medline, and Medscape for SRS was carried out to explore its clinical indications, efficacy and safety.

#### **Results:**

Benign and malignant intracranial as well as spinal lesions were proven to have very good responses in AVM, meningiomas, vestibular schwannomas, pituitary adenomas, craniopharyngeomas, gliomas, brain and spine metastasis, ocular lesions and functional disorders. The studies on SRS represent high degree of efficacy and safety with wide range of intracranial and extracranial clinical indications.

#### **Conclusion:**

SRS is an important noninvasive treatment option for early staged, elderly, inoperable, and previously irradiated patients with brain and spinal lesions. We may encourage the use of this technique in Pakistan to move forward for the better controls of tumors with modern technologies.

**Key Words:** Stereotactic radiosurgery, intracranial tumors, stereotactic body radiosurgery, spinal tumors.

## **ABSTRACT – 34**

“PODOPLANIN AND BETA-2-MICROGLOBULIN AS MARKERS OF METASTATIC DISEASE IN EARLY TONGUE CANCER.”

S.Faiz<sup>1</sup>, M.Tehseen<sup>1</sup>, R.Azhar<sup>1</sup>, Q.Ahmed<sup>1</sup>, O.Farooq<sup>2</sup>, R.Hussain<sup>1</sup>, A.Jamshaid, FW. Khwaja<sup>1</sup>.

<sup>1</sup>Shaukat Khanum Memorial Cancer Hospital & Research Center, Lahore, <sup>2</sup>Lahore University of Management Sciences, Lahore, Pakistan.

### **Objectives/Aims:**

Pakistan has one of the highest incidences of oral cancer in the world. In Shaukat Khanum Memorial Cancer Hospital and Research Center (SKMCH&RC), Squamous Cell Carcinoma of Tongue (SCCOT) is the second most common head and neck malignancy. To date only neck dissection, a highly invasive and costly procedure, can predict regional and distant recurrence of disease. However, only 20-30% of patients with early tongue carcinoma will actually have metastatic disease. Therefore, there is a pressing need to find low cost, and sensitive method to identify patients requiring this invasive procedure. In this study we aim to examine a subset of proteins that could potentially serve as prognostic markers of nodal metastasis in early SCCOT in order to minimize unnecessary neck dissection in patients with early disease.

### **Method:**

Retrospective analysis was performed in a double-blind manner on 2 tissue microarrays (5 cores/patient) created from paraffin-embedded specimens from 50 patients with well documented clinical history of the disease. 20 different proteins were selected as potential biomarkers of metastasis based on published literature on SCCOT and analyzed through IHC.

### **Results:**

Differential expression of proteins is found in patients with recurrence versus those with disease free survival. Among these a glycoprotein, Podoplanin and two cytokines, Beta 2-microglobulin and interleukin-8 were found up regulated and E-cadherin was down regulated in samples that metastasized following surgery.

### **Conclusions:**

Expression pattern of podoplanin and Beta-2 microglobulin is sufficient to predict metastasis in 97.2% of SCCOT cases.

## **ABSTRACT – 35**

“NEED TO REVISIT OUR ETHICS OF MEDICAL PHOTOGRAPHY.”

Faisal Nazeer Hussain  
Fatima Jinnah Medical College, Lahore.

### **Objectives/Aims:**

The recent increase in the number of medical publications and the improvement in the quality of scientific publications locally is heartening. There is need to evaluate the practices being followed by these journals to see if internationally recognized code of conduct for medical photography are being followed.

### **Method:**

A review of a few regularly published quality local journals has been done to see the quality of photographs included, labeling, ethical usage, clarity and suitability of the photograph for the article. Unethical, poor quality pictures and unnecessary inclusion was noted. Lapses on part of editorial staff were pointed out.

### **Results:**

Pictures of females showing their faces, undressed patients, infants, radiological pictures identifying the patients are printed frequently without regards to the negative effect these can have upon the psyche of the particular patient. In appropriately labeled micrographs were found frequently. Selective photographs will be presented pointing out the flaws on part of the author or the editorial staff. Good quality work will be included and a brief review of the current code of Medical Photography will be shared in the presentation.

### **Conclusion:**

The poor quality of photographic work by the authors increases the workload of the editorial staff and brings down the quality of the scientific paper. It needs some understanding of the basics of general photography before a physician can take quality and scientifically correct photographs that can be printed easily by careful journals.

## ABSTRACT – 39

“INVESTIGATING THE ROLE OF MIRNAS IN INITIATION AND PROGRESSION OF DIFFERENTIATION OF MOUSE CARDIAC STEM CELLS.”

Aftab Ahmad<sup>1</sup>, Edilamar M de Oliveira<sup>1</sup>, Yao Liang Tang<sup>2</sup>; Keping Qian<sup>2</sup>, Ieping Shen<sup>2</sup>, Luvena Ong<sup>3</sup>, M.Ian Phillips<sup>4</sup>

<sup>1</sup>University of the Punjab, Lahore, <sup>2</sup>Univ of Sao Paulo, Sao Paulo, Brazil, <sup>3</sup> Keck Graduate Institute, Claremont, CA. USA, <sup>4</sup>MIT, Cambridge, MA. USA, <sup>5</sup> Keck Graduate Institute, Claremont, CA.USA

### Objectives/Aims:

Several studies suggest that miRNA have important roles in the development of the heart and cardiac function. We hypothesized that specific miRNA are involved in the differentiation steps of cardiac stem cells to heart cells.

### Method:

We studied 569 unique miRNAs probes in mouse heart cells (MHtC), cardiac stem cells (CSC) and CSC with GATA4 (CSCG). Based on Sanger miRMouse -10.1, we compared miRNAs in the following groups 1) MHtC vs. CSC, 2) CSC vs. CSCG, 3) MHtCs v CSCG. We also compared CSCs under hypoxia and normoxia.

### Results:

miRNAs reported in the results were confirmed by PCR As previously reported miRNA 1, 133a and 133b were highly expressed in MHt. However, we also found previously unreported, relatively high expression of miRNAs 126 –3p, 145, 451 and 499 in MHtC. MicroRNAs have not previously been reported in CSCs or CSCG. We found unique expression miRNAs 10a, 10b, 31, 214 and 762 in CSCs and increased expression of miRNAs 705, 709, 762, and 1224 in CSCG. In MHt, miR 21 was lower compared to miR21 in CSCs. Expression of miRNA-762 was expressed significantly more in CSC-G than in CSC. Therefore, miR-762 could be the direct transcriptional target of GATA-4 in CSC and a part of the differentiation control pathway from CSC to MHtC. In addition we studied miRNA from CSCs exposed to hypoxia. Hypoxia suppressed all miRs found except miR-574 –5p, which was increased in hypoxia.

### Conclusion:

The results led us to identify which genes are targeted by these miRNAs. miRNA 762 is located into the BCL-7c gene and by miRNA target predictions it was found to target activin A receptor (type IB and II-like-1) gene, bone morphogenic gene and transforming growth factor, beta receptor III (TGFβIII). Embryonic stem cells differentiate into cardiomyocytes in the presence of activin A and BMP4, therefore we suggest that the miRNA 700 family (miR762 in particular) in cardiac stem cells inhibits activin A and BMP4 genes, possibly through TGFβIII signaling, to maintain stem cells in the undifferentiated state. The results reveal new miRNAs in cardiac stem cells differentiation to adult heart cells and suggest their role of specific gene targeting.

## **ABSTRACT – 40**

### **INCIDENCE OF PAP SMEAR BASED CYTOLOGICAL ABNORMALITIES IN A GROUP OF PAKISTANI WOMEN**

Noreen Zafar  
Doctor's Hospital and Medical Centre, Lahore

#### **Objectives/Aims:**

This study was carried out to ascertain the incidence of abnormal Pap smears among Pakistani women, to objectively justify the need for a cervical cancer screening program. The currently known incidence consists of patients mostly presenting in stage 3 or 4 and the older cohort of population is under represented .A rise in the number of cases is expected with the rapidly changing social practices.

#### **Method:**

A total of 525 patients attending gynaecology out patients over 18 month's period were included. Spatula and cytobrush samples were taken for all post menopausal women. All patients with HSIL and ASC-H underwent colposcopy and biopsy. Endometrial sampling was performed if indicated.

#### **Results:**

Age range was 19 to 65 years

- Cytological abnormalities were present in 70 cases (13.34 %),
- Low grade Squamous Intraepithelial lesions (SIL) in 28 women, (5.34 %)
- High Grade SIL in 7 patients, (1.33 %), (CIN 2, three , CIN3 ,three and CIS 1 case)

Atypical Squamous Cells (ACS) of Undetermined Significance in 21 women, 4 %. (ASC-High in 12 and ACS-Undetermined Significance in 9 patients)

Mixed Glandular & Squamous Lesions of Uncertain Significance in 14 women (2.67%), (1 Endometrial Carcinoma)

#### **Conclusion:**

This study highlights the need for a national screening program in Pakistan which is likely to record a substantial increase in the number of new cases due to the early detection of cervical cancer. There is an urgent need to raise awareness among women about pre cancer and cancer prevention.



## ABSTRACT – 50

“MAGNITUDE AND DETERMINANTS OF NON-COMPLIANCE AND DEFAULT TO TREATMENT AMONG PULMONARY TUBERCULOSIS PATIENTS UNDER DOTS.” (A research study conducted in district Lahore, Pakistan during 2006-07)

Ayesha Humayun<sup>1</sup>, Naheed Humayun Sheikh<sup>2</sup>, Noor Fatima Ahsen<sup>3</sup>, Humaira Iqbal<sup>4</sup>, Darakshan Badar, Ejaz Qadeer, Anwar Chaudhary<sup>4</sup>, Tahir Saeed<sup>6</sup>

<sup>1</sup>Continental Medical College, Lahore. <sup>2</sup>Allama Iqbal Medical College, Lahore, Pakistan. <sup>3</sup>FMH College of Medicine & Dentistry, Shadman, Lahore, Pakistan. <sup>4</sup>PTP, Punjab, Lahore, <sup>5</sup>National Tuberculosis Control Program, Rawalpindi, <sup>6</sup>Gulab Devi Chest Hospital, Post Graduate medical Institute, Lahore.

### Objectives/Aims:

To identify the burden of non-compliance and default to anti-TB drug regimens and factors interfering with their successful completion of TB treatment under DOTS in new pulmonary TB patients.

### Method:

Ambi-directional study using the elements of case control and cohort study. 421 new pulmonary tuberculosis patients using ATT were interviewed at the start of their treatment regarding the potential predictors of treatment interruption and were followed to the end of the treatment period of 8 months for treatment outcome and interruption.

### Results:

At the end of the treatment period, treatment interrupters were 7.4%. Among them 5.9% were defaulters (treatment interruption for  $\geq 2$  months) while 1.4% were Non-compliers (treatment interruption  $< 2$  months). Analysis showed a significantly increased risk of treatment interruption among females (RR=2.08, 95% CI 0.95-4.55), those who need to travel in order to get medicine (RR=20.78, 95%CI 5.02-85.97,  $p < 0.0001$ ), those who need to travel a distance of more than 30 minutes walk to get medicine (RR=4.38, 95% CI 2.22-8.63,  $p < 0.0001$ ), those who sometimes need to buy medicine (RR=2.3, 95%CI 1.17-4.51,  $p = 0.024$ ) and those subjects who were directly observed by health care provider (RR=14.48, 95%CI 4.95-42.37,  $p < 0.0001$ ).

### Conclusion:

Like socio-demographic, cultural and behavioral predictors of treatment interruption (Default & non-compliance), direct observation by family members/ neighbors or a responsible person in the family is also significantly associated with treatment compliance in TB high burden countries. To improve treatment adherence and compliance these factors should be addressed while reviewing strategies for TB control in Pakistan.

## ABSTRACT – 56

“GENOTYPE FREQUENCIES OF SELECTED DRUG METABOLIZING ENZYMES AND A.B.C. DRUG TRANSPORTERS AMONG BREAST CANCER PATIENTS ON F.A.C. CHEMOTHERAPY.”

Afsar NA<sup>1</sup>, Haenisch S<sup>2</sup>, Mateen A<sup>3</sup>, Usman A<sup>4</sup>, Ufer M<sup>2</sup>, Ahmed KZ<sup>1</sup>, Ahmad HR<sup>1</sup>, Cascorbi I<sup>2</sup>.  
<sup>1</sup>Ziauddin University, Clifton Campus, Karachi Pakistan. <sup>2</sup>Institute of Experimental and Clinical Pharmacology, Christian Albrechts University Kiel, Germany. <sup>3</sup>Karachi Institute of Radiotherapy and Nuclear Medicine, Karachi, Pakistan. <sup>4</sup>Department of Oncology, Jinnah Postgraduate Medical Center, Karachi, Pakistan.

### Objectives/Aims:

The response to a drug may be influenced by polymorphic genes of drug metabolizing enzymes and transporters. This study was designed to explore the genotype profiles for the breast cancer patients on fluorouracil, doxorubicin and cyclophosphamide (FAC) in a Pakistani set of population and their comparison with HapMap data.

### Method:

Sixty eight females suffering from infiltrating ductal carcinoma of breast, who received FAC chemotherapy, were included after informed consent. Relevant SNPs of genes involved in drug metabolism and transport were genotyped either through restriction fragment length polymorphism or pyrosequencing after PCR amplification.

### Results:

The variant allele frequencies were as follows: 5.1% for CYP2C9\*2 (430C>T), 15.4 % for CYP2C9\*3 (1075A>C), 27.2% for CYP2C19\*2 (681G>A), 33.1% for GSTA1\*B (-69C>T, -52G>A), 62.5% for ALDH3A1\*2 (985C>G), 58.8% and 4.4% for ABCB1 (2677 G>T/A), 64.7% for ABCB1 3435 C>T, and 15.4%, 33.1% and 39.7% for ABCC2 (-24 C>T, 1249 G>A and 3972 C>T).

### Conclusion:

In comparison to HapMap database, this study shows in Pakistani samples a higher frequency of (a) CYP2C9\*3 carriers ( $p<0.05$ ) than in Hispanic, Chinese, Japanese and African samples, (b) ALDH3A1\*2 carriers ( $p<0.01$ ) than Caucasian, Hispanic, Chinese, Japanese and African samples. In case of ABC transporters, a higher frequency of variant allele was observed in (c) ABCB1 2677 G>T/A ( $p<0.01$ ) than Caucasian, Hispanic and African samples, (d) ABCB1 3435 C>T ( $p<0.05$ ) than Chinese, Japanese and African samples, (e) ABCC2 1249 G>A ( $p<0.01$ ) than Hispanic, Chinese and Japanese samples. Though carriers of CYP2C19\*2 were higher than in Caucasian and Hispanics but the frequency did not reach statistical significance ( $p=0.05$ ).

## **ABSTRACT – 59**

### **“GINKGO BILOBA EFFECTS ON MICE FETAL LIVER”**

Uruj Zehra, Mohammad Tahir, Fahim H Jaffery, Khalid P Lone  
University of Health Sciences, Lahore

#### **Objectives/Aims:**

To study the malformations in the liver of mice fetuses of the mothers given Ginkgo biloba during pregnancy.

#### **Method:**

Two experimental groups of six pregnant female mice each were given Ginkgo biloba at human therapeutic dose (A) and a higher dose (B) through out the gestation period. A third group (C) was taken as a control and given distilled water only. Fetal livers were examined and the effects of the drug observed.

#### **Results:**

Chi2 and ANOVA showed statistically significant results in dose dependent manner. There were signs of congestion and fatty change in the central veins and hepatocytes of treated groups. Sinusoidal dilatation was also observed in the experimental groups which were directly proportional to the dose of drug.

#### **Conclusion:**

Our results indicate that Ginkgo biloba extract is deleterious to the developing fetus. There was no evidence from the previous studies suggesting its teratogenicity.

## ABSTRACT – 79

“NUTRITIONAL AND TOXIC HEAVY METAL ANALYSIS OF SEASONAL VEGETABLES OF LAHORE”

Sohail Mariam<sup>1</sup>, Shujaat Shahida<sup>1</sup>, Sherin Lubna<sup>1</sup> and Saeed Asma<sup>2</sup>

<sup>1</sup>Lahore College for Women University Lahore, <sup>2</sup>PCSIR Laboratories Lahore

### Objectives/Aims:

Vegetables being a valuable source of vitamins, minerals and fiber may also contain contaminants such as Pb and Cd up to varying degrees depending upon the soil and irrigation water quality. It is therefore necessary to monitor their trace metal contents regularly nevertheless these health promoting vegetables may become a health hazard.

### Method:

In this study seventeen varieties of seasonal vegetables were collected in triplicate from three main vegetable markets of Lahore. Edible parts were oven-dried, subjected to charring, then ashing till grayish white in the muffle furnace at  $500 \pm 20^\circ \text{C}$  and finally analyzed for their Zn, Cr, Ni, Cu, Cd and Pb content after dissolving in 5mL of 6N HCL, warming and diluting up to 50 mL using Atomic Absorption Spectrophotometer.

### Results:

Average daily intake of the above mentioned metals through vegetables was calculated and compared with the WHO permissible limits. Results revealed Ni, Zn and Cu content of all vegetables much below the permissible limit while chromium was not in the detectable range in any vegetable sample. However, Pd and Cd contents were much greater than the permissible limits in the samples collected from all the three vegetable markets.

### Conclusion:

Ni, Zn and Cu contents in all vegetables collected from the three main markets of Lahore were of nutritional importance. However, Pb and Cd contamination of these vegetables might pose a health risk upon greater consumption of these vegetables, the risk factor being greatest for Minar-e-Pakistan vegetables in case of Pb and for Model Town vegetables in case of Cd.

## **ABSTRACT – 82**

“COMPARISON OF ELECTROMYOGRAPHY / NERVE CONDUCTION STUDIES AND MAGNETIC RESONANCE IMAGING IN DIAGNOSIS OF LUMBOSACRAL RADICULOPATHY.”

Waseem Iqbal, Nadeem Ahmad, Aamir Waheed Butt  
AF Institute of Rehabilitation Medicine, Rawalpindi, Pakistan

### **Objectives/Aims:**

To compare EMG/NCS with MRI in diagnosis of Lumbosacral Radiculopathy.

### **Method:**

A Cross-sectional comparative study of 50 Consenting patients with clinical features of Lumbosacral radiculopathy fulfilling the inclusion criteria was carried out at Armed Forces Institute of Rehabilitation Medicine Rawalpindi during June 2007 to January 2008 to compare NCS/EMG with MRI in diagnosis of Lumbosacral Radiculopathy. All the patients underwent NCS/EMG and MRI and then both procedures were compared for specific spinal nerve involvement in diagnosis of radiculopathy.

### **Results:**

NCS/EMG had 66 % sensitivity when compared with MRI, which is also comparable to its sensitivity when compared with clinical diagnosis and the sensitivity of MRI (70 %). However, 64% patients had an EMG abnormality and 28% patients had an MRI abnormality that correlated with the clinical level of radiculopathy.

### **Conclusion:**

Our study conclude that NCS/EMG has comparable sensitivity with MRI while same was the sensitivity with the clinical diagnosis but the specificity could not be calculated due to the nature of study. On the other hand, the clinical correlation of NCS/EMG was high compared to MRI. So every patient with clinical Lumbosacral Radiculopathy should undergo NCS/EMG for confirmation of diagnosis. However, when there are features of severe denervation, anatomical lesion is suspected, or surgical intervention is planned, MRI should complement it. So, in general, both the tests remain complementary modalities to each other. Moreover, the study highlights the importance of clinical correlation for interpreting MRI.

## **ABSTRACT – 85**

“CAN THE 14C-UREA BREATH TEST FOR H.PYLORI REPLACE ENDOSCOPY FOR THE ASSESSMENT OF DYSPEPSIA IN PAKISTANI POPULATION?”

Iqbal Munir, Mohammad Khalid Nawaz, Saima Muzahir, Mohmmad Saadullah, Yaqoob Iqbal Khan.  
Shaukat Khanum Memorial Cancer Hospital & Research Center, Lahore

### **Objectives/Aims:**

This pilot study was aimed to document the sensitivity, specificity and accuracy of C-14 UBT in Pakistani population against the endoscopic biopsy for the H.pylori detection as a standard.

### **Method:**

We included 17 consecutive patients, referred from the GI clinic after undergoing the endoscopy and biopsy for the assessment of acid peptic disease. After histological confirmation of H.pylori and the patient preparation like no antibiotics for last 4 weeks, proton pump inhibitors for last 2 weeks and NPO for at least last 6 hours. Patient was given a capsule containing 1 mg urea labeled with 37 kBq(1 micro Ci) C-14 with 50ml lukewarm water. Patient's breath was collected at 15min post capsule ingestion using Breath card TM and reading was determined by using Heliprobe. Values of 0, 1 and 2 taken as negative, borderline and positive for active H.pylori infection respectively.

### **Results:**

Endoscopic biopsy of abnormal gastric mucosa was taken in all 17 patient and 15(89%) were positive while 2 (11%) biopsies were negative for H.pylori. 14(93%) out of these 15 positive patients UBT was positive for active H.pylori infection with the value of 2 and 1(7%) was borderline with the value of 1 on Heliprobe. The UBT does not confirm the presence of active H.pylori infection with the value of zero on Heliprobe in biopsy negative patients. Above results validated the sensitivity of 93% and specificity of 100% of 14C UBT.

### **Conclusion:**

UBT may be considered as the standard for H. pylori detection in our setting because it is simple, safe and cost effective. This technology has the potential to replace endoscopic biopsy for the detection of H.pylori thus can improve patient care in the developing country like ours.

## ABSTRACT – 89

“VARIATION IN DISC DIFFUSION SUSCEPTIBILITY RESULTS FOR ACINETOBACTER SPP. WITH TIGECYCLINE.”

M. Mudassar, Imran Aslam, Sheraz Younas, Farhana Butt.  
Shaukat Khanum Memorial Cancer Hospital, Lahore

### Objectives/Aims:

An opportunistic pathogen, *Acinetobacter* spp is increasingly seen as a cause of nosocomial infections. Due to multi-drug resistance, treatment of these infections has become a major challenge.

Tigecycline has shown inhibitory activity against *Acinetobacter* spp however, there are no CLSI guidelines for its testing as yet. In most studies the US Food and Drug Administration (FDA) criteria for Enterobacteriaceae susceptibility against tigecycline are used.

This situation has been further complicated by reports showing conflicting results when different company brands of Muller-Hinton agar (MHA) media are used to test *Acinetobacter* spp against tigecycline.

Our objective was to assess the performance of different brands of MHA available in Pakistan when testing *Acinetobacter* spp against tigecycline.

### Method:

We tested 36 non-repeated *Acinetobacter* spp. isolated from clinical samples received in our laboratory.

Four types of MHA were selected, Oxoid (UK), Becton-Dickinson (BD USA), HiMedia (India) and Merck (Germany).

All media were prepared on the same day and susceptibility testing carried out within 24 hours of media being poured. *Escherichia coli* ATCC 25922 and *Staphylococcus aureus* ATCC 25923 were used as controls.

### Results:

Interpretation of results was carried out using 2 criteria, the FDA criteria for Enterobacteriaceae and the breakpoints suggested by Jones et al (2007).

Using FDA criteria the percentage of isolates sensitive to tigecycline was 81% with BD MHA, 28% with Oxoid, 92% with HiMedia and 67% with Merck MHA.

Using Jones et al criteria the percentage of isolates sensitive to tigecycline was 100% with BD MHA, 67% with Oxoid, 100% with HiMedia and 94% with Merck MHA.

### Conclusion:

There is a marked variation in the results of different brands of MHA when testing *Acinetobacter* spp against tigecycline. Due to this disparity, at present it would seem that the provision of clinically relevant interpretation based on disc diffusion method is not possible and if tigecycline is to be reported with *Acinetobacter* spp other methods of testing must be adopted.

**POSTER PRESENTATIONS**



## **ABSTRACT – 1**

“INCIDENCE OF GESTATIONAL THYROID HORMONE DEFICIENCY: A RISK FOR NEURO-INTELLECTUAL DEVELOPMENT OF CHILDREN IN LAHORE.”

Shan Elahi, Saeed Ahmad Nagra<sup>1</sup>, Muhammad Naeem and M. Ajmal Khursheed  
Centre for Nuclear Medicine (CENUM), Mayo Hospital and <sup>1</sup>University of the Punjab, Lahore

### **Objectives/Aims:**

Thyroid hormones (TH) production is increased during pregnancy due to certain physiological processes and essential contribution in fetal brain development. In areas where maternal iodine intake is low or pregnant women had pre-existing autoimmune thyroiditis (AT), synthesis of TH is compromised resulting in hypothyroxinemia (HYPOX; low FT4 and normal TSH) or transient hypothyroidism (TH; low FT4 and increased TSH). Both of them are risk for brain development and hence future neuro-intellectual development of progeny. We prospectively investigated the degree of iodine deficiency (ID), prevalence of AT (presence of high TPO-Ab titer) and incidence of both HYPOX and TH in 254 pregnant women selected from a local hospital during the year 2005.

### **Method:**

ID was determined by urinary iodine (UI) concentration done by Sandell-Kolthoff reaction and TH & TPO-Ab were carried out by radioimmunoassays using commercial kits.

### **Results:**

Median UI in pregnant women was 67.0 µg/L. Among them 63 (24.8%) women were taking moderately low iodine (UI < 50 µg/L) and 40 (15.7%) women had raised TPO-Ab titer (“high risk group”). Maternal ID and TPO-Ab positivity were found to be significantly correlated with FT4 and TSH levels. Overall 54 (21.2%) pregnant women exhibited HYPOX and/or TH during the course of pregnancy. “High risk group” women had significantly (P < 0.05) lower FT4, increased TSH levels and thus more incidences of HYPOX (20% Vs 2.4%) and TH (14.4% Vs 0.6%) as compared to rest of sample.

### **Conclusion:**

One-fifth of women had TH deficiency during pregnancy posing a risk of suboptimal neuro-intellectual development of their children in future.

**ABSTRACT – 3**  
**Withdrawn by author**

**ABSTRACT – 5**  
**Withdrawn by author**

## **ABSTRACT – 8**

### **“QUALITY OF LIFE IN GASTROESOPHAGEAL CANCER PATIENTS AFTER SURGERY.”**

Waseem Shehzad Rao, Nauman Arif Jadoon, M. Asif Shehzad  
Multan Institute of Nuclear Medicine & Radiotherapy, Multan

#### **Introduction:**

WHO defines Quality of Life as an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It captures, at a minimum, physical, psychological (including emotional and cognitive), and social functioning. Quality of life measures are important as this data helps in efficient clinical decision making based on patients' experience during the course of illness. It also helps us in selection of optimal treatment type, surgery, psychosocial interventions, and allocation of resources. The purpose of this study was to assess the affect of surgery on the quality of life in gastroesophageal cancer patients.

#### **Methods:**

This study was conducted in outpatient department of Multan Institute of Nuclear Medicine and Radiotherapy using the brief version of World Health Organization Quality Of Life questionnaire (WHO QOL BREF). 70 patients with gastroesophageal cancer were included in the study and were divided into two groups on the basis of surgery. Consent was taken before filling the questionnaire.

#### **Results:**

The gastroesophageal cancer patients who underwent surgery showed a significant improvement in the physical, psychological and social domains as well as the overall health related quality of life ( $p < 0.05$ ). However, quality of life in one domain, the environmental domain, did not improve and even deteriorated significantly in certain facets, including more negative feelings, worse financial situation and ability to participate in leisure and pastime activities.

#### **Conclusion:**

The study demonstrated that gastroesophageal cancer patients experience a significant improvement in their quality of life after surgery. These findings are important in selection of treatment intervention for improving the quality of life of patients.

## **ABSTRACT – 8a**

“ASSOCIATION OF CLINICAL AND LIFESTYLE FACTORS WITH PREVALENCE OF DEPRESSION IN DIABETES PATIENTS.”

M. Asif Shehzad, M. Nauman Arif Jadoon, Waqar Munir, Irfan Bashir  
Nishtar Medical College, Multan

### **Objectives/Aims:**

The purpose of this study was to estimate the prevalence of depression in people with diabetes and to determine the associated clinical and lifestyle factors.

### **Method:**

A cross-sectional study was carried out on 100 individuals with diabetes and potential clinical and lifestyle factors were investigated. Aga Khan University Anxiety and Depression Scale with a cutoff score of 20 was used to assess prevalence of depressive symptoms in diabetic patients. Response rate was 81 %. Consent was taken before administering the questionnaire to the patients. Data was analyzed using SPSS v 16. Logistic regression was used for determining the association.

### **Results:**

The mean age of patients was  $48.48 \pm 12.02$  years while the mean duration of diabetes was  $70.20 \pm 64.37$  months. 52% of the patients were male and 90% had type 2 diabetes mellitus. The prevalence of depression in diabetic patients was 69% (AKUADS  $\geq 20$ ). Several factors including poor glycemic control, increased duration of diabetes, type 1 diabetes, smoking, living in urban area and being physically inactive were found to be independently associated with presence of depression in patients with diabetes.

### **Conclusion:**

Depression is highly prevalent among people with diabetes. The prevalence rate varied with clinical and lifestyle factors. Findings support inclusion of a psychologist in the diabetes team to improve outcome. Early intervention to treat sub clinical anxiety and depression may prevent subsequent psychological distress.

## **ABSTRACT – 10**

“MEDICAL TEACHER IMMEDIACY AND STUDENTS LEARNING BEHAVIOR.”

Tariq Manzoor, Muhammad Ibrahim  
FMH-IAHS, FMH College of Medicine and Dentistry, Lahore

### **Objectives/Aims:**

The objective of this study is to determine the effect of medical teacher immediacy on student's behavior at under graduate level.

The aim of this study is to determine the relationship between medical immediacy and student behavior.

### **Method:**

This study was conducted at FMH-IAHS, Fatima Memorial Hospital College of medicine and dentistry Lahore which has a student body of 100. All students of MIT department were enrolled in this study. A closed ended questionnaire containing questions regarding teaching immediacy and student behavior based on likert scale was used as instrument to obtain the data. A cross-sectional design was employed in this study. SPSS was used to analyze the data. A Pearson Correlation coefficient was calculated.

### **Results:**

A high correlation coefficient ( $P < 0.05$ ) was obtained between teacher immediacy and students behavior.

### **Conclusion:**

Results are suggested that the good teaching has positive effect of student's behavior.

## **ABSTRACT – 11**

“SEROPREVALENCE OF TRANSFUSION TRANSMISSIBLE INFECTIONS (TTIS) IN BLOOD DONORS AT GHURKI TRUST TEACHING HOSPITAL, LAHORE.”

Iram Manzoor  
Ghurki Trust Teaching Hospital, Lahore.

### **Objectives:**

To find out the seroprevalence of HIV, Hepatitis B, C virus and Treponema Pallidum among the healthy blood donors, at Ghurki Trust Teaching Hospital, Lahore.

Study design: Descriptive study.

Place and duration of study: Blood Bank of GTTH, Lahore, from 1st January to 31st December 2008.

### **Methods:**

All healthy blood donors reporting to blood bank in the specified study period were screened for HIV, Hepatitis B, C and Syphilis.

### **Results:**

A total of 6659 donors were screened, out of these 512 donors (8%) were seropositive for Hepatitis C, 113 (2%) were sero positive for Hepatitis B, 35 (0.5%) were seropositive for syphilis and only 3(0.05%) had shown seropositivity for HIV.

### **Conclusion:**

Transfusion transmissible infections are a major threat associated with unscreened blood donations. In Pakistan the prevalence of Hepatitis B and C is very high in occult form. Selection of healthy blood donors and public awareness programs targeting local community will be an important measure to stop its transmission through blood transfusion.

### **Key Words:**

Hepatitis B, Hepatitis C, HIV, Syphilis, Blood donors.

## **ABSTRACT – 12**

“ASSESSMENT OF OBESITY, ITS CAUSES AND ASSOCIATED RISK FACTORS AMONG MALE MUSLIM RELIGIOUS CLERICS AND TEACHERS (AOCAF Study)”

Javed, M.Usman, Osama Mushtaq, Junaid Hanif, Mahroz Khalid, M Junaid Akram, Rabail Qureshi, Rizwana Salik Nukrich, Dr SM Mubin  
Hamdard College of Medicine & Dentistry, Hamdard University, Karachi

### **Objectives/Aims:**

The objectives of the study are to assess the presence of obesity, its causes, associated risk factors among Male Muslim religious clerics and teachers. (Qari Sahiban)

### **Method:**

A cross sectional study was conducted from July to November 2008. The sample was collected from Faisalabad and its surrounding areas. Using probable random sampling method 200 individuals were selected. Out of them, 22 did not meet the criteria or refused to participate, hence 178 were assessed. A self-questionnaire was administered and investigations were performed. All ethical issues were taken in to consideration.

### **Results:**

According to the standard parameters of Body Mass Index(BMI) & Waist Hip Ratio(WHR) 87% and 88% were found to be obese respectively. Twenty one percent of our population showed positive family history of diabetes, 18 % of hypertension and 14.6% of heart diseases while 23.6% and 12% were found to be diabetic and hypertensive respectively. Hypercholesterolemia of our study population was found to be 11.3%.A strong association is found between obesity and diabetes; out of the total diabetics BMI of only three persons were within normal range. Similarly among the obese and cholesterol levels, only one person has BMI in normal range. Although a large proportion of sample has low income, there is substantial supply & consumption of high value food.

### **Conclusion:**

Our study not only confirms the presence of obesity but also highlight its magnitude in our sample population. A strong association between obesity and its risk factors were found posing a threat for outcomes like Diabetes, Heart attack, Stroke & Hypertension.



## **ABSTRACT – 13**

“IDENTIFICATION OF RISK FACTORS OF HEPATITS B IN PARACHINAR, NWFP, PAKISTAN IN 2008-2009.”

Perveen<sup>1</sup>, F., Turi<sup>2</sup>, I. H. and Khattak<sup>2</sup>, R. M. and Saleha<sup>2</sup>, S.  
Hazara University<sup>1</sup>, Mansehra, KUST<sup>2</sup>

### **Objectives/Aims:**

Hepatitis B is an increasingly important public health problem. To study identification of risk factor of "hepatitis B" in Parachinar, a case was performed from 2008 to 2009.

### **Method:**

Hundred (100) "hepatitis B" cases were selected and interviewed.

### **Results:**

Age group 15-30 years have high rate of hepatitis B (55%) with a higher rate in males (93%) compared with female (7%). Higher risk factor was found in the following sequence: surgical operation (40%), shared syringes (35%), health care worker (10%), sewage worker (5%), sexual (5%), mother to infant (3%) and tattooing (2%). Risk factor was found higher in married (52%) compared with unmarried women (48%). The percentage of hepatitis B was found higher in urban (84%) compared with rural areas (16%). According to economic status more hepatitis patients were belonging to higher economic status (84%). Educational level among the study subjects most were secondary (34%) and illiterate (28%) followed by intermediate and middle (14% and 13%), respectively. The symptoms were found in the following sequence: anorexia (84%), weight loss (78%), fever (75%), myalgia (68%), rashes (64%), yellow skin color (59%), vomiting (46%), conjuction (45%), pale color stool (41%), abdominal pain (37%), fatigue (36%), diarrhea (31%), dark color urine (30%) and nausea (24%).

### **Conclusion:**

The lack of education, poor socio-economic condition, poor hygiene and over crowding in homes are basic factors of transmission of hepatitis B. Improvements in the infrastructure, along with the execution of the control measures are the fundamental important for reduction of hepatitis B incident in Parachinar.

## ABSTRACT – 14

“LA NIÑA AND THE DENGUE FEVER EPIDEMIC IN LAHORE.”

M. Nauman Arif Jadoon  
Nishtar Medical College, Multan.

### Introduction:

Dengue is the most important viral vector borne disease becoming an important urban health problem in recent years. In certain countries, the timing of epidemics of vector borne disease has been shown to correlate with the El Niño southern oscillation (ENSO) which is an interaction between ocean and atmosphere in tropical Pacific affecting global weather and climate patterns having two extremes, El Niño and La Niña. Its state is summarized by Southern Oscillation Index (SOI) and Oceanic Niño Index (ONI). ENSO may affect dengue fever epidemiology directly by affecting climate patterns (temperature, rainfall, humidity) and indirectly by causing changes in water storage practices. It is not known what climatic variations affect dengue fever epidemiology in Pakistan. The study was carried out to determine the association of between La Niña and dengue fever cases admitted in various hospitals of Lahore.

### Method:

Record of confirmed dengue fever cases admitted in various hospitals in Lahore was collected. Microclimatic data was obtained from Regional Meteorological Centre, Lahore which included rainfall (mm/month), humidity (% at 8 am and 5 pm) and temperature (°C). Macroclimatic data including SOI, ONI and El Niño/ La Niña updates were obtained from World Meteorological Organization and National Oceanic & Atmospheric Administration, USA. Linear regression was used for determining the association.

### Results:

There were a total of 1757 indigenously confirmed cases of dengue fever in Lahore from 2005 to 2008. Linear regression models found statistically significant correlation between SOI and minimum temperature ( $r = -0.76$ ,  $p < 0.05$ ) as well as maximum temperature ( $r = -0.678$ ,  $p < 0.05$ ) but no correlation between SOI and rainfall in Lahore ( $r = -0.029$ ,  $p > 0.05$ ). However, there was positive correlation between daily rainfall and ONI ( $r = -0.946$ ,  $p < 0.05$ ). highest number of dengue fever cases were recorded in 2008 which had a positive correlation with La Niña (90% higher than the mean number of cases) when compared with years having weak or no La Niña in which case there was a reduction in number of cases compared to mean value ( $p < 0.001$ ). A positive correlation was found between SOI and dengue ( $r = 0.781$ ,  $p < 0.05$ ). Dengue fever cases in Lahore were positively correlated with minimum temperature ( $r = -0.967$ ,  $F = 61.84$ ,  $p < 0.05$ ), maximum temperature ( $r = 0.981$ ,  $F = 52.1$ ,  $p < 0.05$ ) and rainfall ( $r = 0.543$ ,  $p < 0.05$ ). No significant correlation was found between relative humidity and dengue fever cases ( $p > 0.05$ ).

### Conclusion:

The results show that global climate anomalies and regional weather indicators affected by it have an influence on number of patients admitted with dengue fever hospitals in Lahore. It is concluded that dengue fever epidemic can be predicted by oceanographic and meteorological data.

## **ABSTRACT – 16**

### **“VALUE OF THREE SPUTUM SMEARS MICROSCOPY IN DIAGNOSIS OF PULMONARY TUBERCULOSIS.”**

Saleem Shumaila, Shabbir Iffat, Iqbal Rizwan, Saulat Ullah Khan  
Pakistan Medical Research Council TB Research Centre KEMU Lahore

#### **Background:**

Early diagnosis and treatment are essential to prevent transmission of tuberculosis in the community. Smear microscopy with Zeihl-Neelsen (ZN) staining is currently the most feasible microbiological method for diagnosis of pulmonary TB in developing countries due to its rapidity, low cost and high positive predictive value for *Mycobacterium tuberculosis*.

#### **Objectives/Aims:**

This study was carried out to assess the diagnostic yield of three AFB smears microscopy among suspected pulmonary tuberculosis patients of Lahore district.

#### **Method:**

This descriptive study was conducted at PMRC TB Research Centre King Edward Medical University,/ Mayo Hospital, Lahore Pakistan where DOTS has been implemented. Patients with respiratory symptoms and or abnormal chest X-ray provided three sputum samples each for acid-fast bacilli smear microscopy. Smears were prepared and stained by Ziehl-Neelsen staining method.

#### **Results:**

In 2006 a total of 2,222 TB suspects submitted three sputum samples on two consecutive days (spot, early morning, spot), therefore 6,666 AFB smear microscopy examinations were performed. The smear positivity rate was 11.5% and 257 (11.56%) suspects fulfilled the case definition of having one positive smear confirmed by a second smear. A total of 438 (19.7%) suspects had at least one positive smear; of these 290 (66.2%) were positive in first smear, 105 (24%) were negative in first smear but positive in second and 43 (9.8%) were positive in third smear after two negative smears.

#### **Conclusion:**

At least three smear microscopy examinations are required for proper diagnosis. The higher diagnostic yield of 9.8% in third smear is indicative of the importance of third smear.

## **ABSTRACT – 19**

“C - REACTIVE PROTEIN CONCENTRATION AND SEVERITY OF CORONARY ARTERY DISEASE.”

Shahida Amjad Riaz Shah, Mariam Mustafa Farooqi  
Sheikh Zayed Medical Complex, Lahore

### **Objectives/Aims:**

Inflammation of vessel wall is now considered to play an essential role in the initiation and progression of atherosclerosis and also in its final steps, i.e., plaque erosion or fissure and eventually plaque rupture. There is increasing evidence that it applied to pathophysiology of acute coronary artery disease. In particular, increased C-reactive protein (CRP), an acute phase reactant has been associated with unstable angina and favorable short and long term clinical outcomes in patients with coronary artery disease.

In this study we aimed to evaluate the relationship between C-Reactive Protein (CRP) and angiographic features in patients with single, double and triple vessel coronary artery disease.

### **Method:**

In this experimental study, we examined 60 patients admitted with acute coronary artery disease. Three groups were made according to the disease severity, that is single, double and triple vessel diseases. 20 patients in each group were analyzed.

### **Results:**

There was a strong and positive association between CRP and coronary artery disease in all the three groups.

### **Conclusion:**

Among patients with acute coronary artery disease, increased levels of CRP correlates with specific high risk coronary artery lesions.

## **ABSTRACT – 22**

“ASSOCIATION OF RIBOSOMAL ANTI-P ANTIBODIES WITH DIFFERENT PARAMETERS OF LUPUS.”

Nageen Hussain Ghazala Jaffery<sup>2</sup> and Shahida Hasnain<sup>1</sup>

<sup>1</sup>Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore. <sup>2</sup>Services Institute of Medical Sciences, Lahore

### Objectives/Aims:

Systemic Lupus Erythematosus is an autoimmune multisystem disorder with protean manifestations and variable behavior. The main objectives of this study are to verify the association of ribosomal anti-P antibodies with neuropsychiatric lupus manifestations and to find out the relationship of ribosomal anti-P antibodies with other autoimmune parameters of lupus.

### Method:

Ribosomal anti-P antibodies were evaluated in the serum of 41 systemic lupus erythematosus (SLE) patients as well as ANA, dsDNA, anti-Sm, anti-SSA, anti-SSB, anti-histone by an indirect ELISA technique. Apart from Immunological tests, we also studied hematological parameters and biochemical parameters.

### Results:

Of the 41 SLE patients, ribosomal anti-P antibodies were significantly elevated in the sera of 6 lupus patients suffering from severe depression, anxiety, headache and lupus psychosis. Immunological parameters like ANA, dsDNA were positive in 100% of the Anti-Rib-P positive patients; but 66.6% were positive for SSA, only 33.3% for Sm, and none of them were positive for anti-histone and SSB. Biochemical parameters like urea, creatinine was higher than the normal range in 66.6% of the anti-P positive lupus patients, suggestive of lupus nephritis.

### Conclusion:

In Pakistan, nobody has studied the relationship of anti- Rib-P with other parameters of lupus, so this study may add something informative to the scientific literature. There is need for more work at molecular level in this aspect on Pakistani population.

## **ABSTRACT – 23**

“FACTORS AFFECTING MEDICAL SPECIALTY PREFERENCES AND GENDER DIFFERENCES IN FOURTH YEAR MBBS STUDENTS OF A PRIVATE MEDICAL COLLEGE IN LAHORE.”

Noreen Rahat Hashmi  
Lahore Medical and Dental College, Lahore

### **Abstract:**

Objective of the study: To study the medical specialty preferences and gender differences in Fourth Year MBBS students of a Private Medical College in Lahore.

### **Introduction:**

The Career preference of medical students plays an important role in determining the number of available health care specialists in future. The need to determine the strength and mix of specialists plays an important role in planning the provision of adequate health care to general public as well as planning the required infrastructure. The preference of most medical graduates is limited to a few specialties leaving a whole list of specialties where there is unmet need, resulting in a health care system where patients have inadequate health care. This study is being done to identify why medical students prefer certain specialties and with that information hopefully we can try to formulate strategies to attract more medical students to the underrepresented specialties.

### **Methodology:**

The study design was a Cross-sectional survey conducted on fourth year MBBS students of Lahore Medical and Dental College. A Preformed Structured questionnaire was used for data collection. Sampling technique was nonprobability technique and all the students in the class participated in the survey (n=121). Data was collected during January 2009 and analyzed using the Statistical Package for Social Sciences (SPSS version 16.0). Descriptive statistics were computed, and the relationship between specialty preference and categorical variables (gender, reasons for choosing a particular specialty) were evaluated using Pearson Chi square test. A calculated p value of < 0.05 was considered statistically significant.

### **Results:**

Our study revealed that students in our study picked surgery(33%) as the most preferred post graduate specialty followed by medicine(14%) and Obstetrics /Gynecology(13%). Gender differences were noted in selection of specialty and it was noted that female medical students picked Obstetrics /Gynecology (25%) while male medical students opted for Surgery as their most preferred specialty (51%). With a p value =0.0 this gender difference in specialty preference was statistically significant.

The most common reasons for choosing a particular specialty were reputation of the specialty (38%) and anticipated income (18%). When we look at the specialty choice preferences we see that in males the most common reason was the reputation of the training program (40%) followed by anticipated income (25%). In Females we see that the most common reason was reputation of the training program (37%) followed by advice from the parents (17%).

### **Conclusion:**

Students in our study picked surgery as the most preferred post graduate specialty was Surgery followed by Medicine and Obstetrics /Gynecology. The most common reasons cited by students for choosing a particular specialty was reputation of the specialty followed by anticipated income and advice from parents. Gender differences were found in career preferences.

Key words: medical students, post graduate medical specialty, age, gender, family income, premedical education

## **ABSTRACT – 24**

“TELEVISION VIEWING HABITS AND SLEEP DISTURBANCES IN SCHOOL AGE CHILDREN OF MULTAN.”

Rehan Yaqoob, Nauman Arif Jadoon, M. Asif Shehzad, Waqar Munir, M. Ijaz Hussain.  
Nishtar Medical College, Multan.

### **Objectives/Aims:**

The objective of this study was to investigate the relationship between specific television-viewing habits and sleep disturbances in school age children of Multan region.

### **Method:**

In this study, we distributed questionnaire among the parents of school age children in Multan. The questionnaire comprised of demographic data, child’s sleeping and television viewing habits. Purpose of study was explained and verbal consent was taken before administering the questionnaire to the parents. Data was analyzed using SPSS v 16.

### **Results:**

On average, children were watching TV for 2.65 hours on week days and 4.23 hours on weekends. Most of the parents had at least one rule regarding TV viewing including rules regarding time & timing, type of program and permission for viewing. Analysis revealed that 50% children were watching TV for education, 45% for entertainment, and 32% as reward while 10% were doing so because of boredom. The television-viewing habits associated most significantly with sleep disturbance were increased daily television viewing amounts and increased television viewing at bedtime, especially in the context of having television set in the child’s bedroom and television viewing after 8 pm. The sleep domains that appeared to be affected were bedtime resistance, sleep onset delay, and anxiety around sleep, followed by shortened sleep duration. 30% parents were of the view that television viewing adversely affects quality of sleep of their children.

### **Conclusion:**

There is need of awareness regarding potentially negative impact of viewing television at bedtime and importance of getting proper sleep. It is recommended that parents should be guided about proper sleep hygiene and its beneficial effect on sleep thus improving health and cognitive functioning of children.

## **ABSTRACT – 24a**

### **“HEPATITIS B VACCINATION STATUS OF HEALTH CARE WORKERS AT A TERTIARY CARE HOSPITAL IN MULTAN”**

Rehan Yaqoob, Nauman Arif Jadoon, Muhammad Asif Shehzad, Ali Raza, M. Ijaz Hussain.  
Nishtar Medical College, Multan.

#### **Objectives/Aims:**

To determine the hepatitis B vaccination status of health care workers (HCWs) at a tertiary care hospital in Multan.

#### **Method:**

This descriptive, cross-sectional interview based study was carried out in Nishtar Hospital Multan from January 2009 to March 2009. Structured questionnaires were distributed among 200 health care workers after taking verbal consent. The questionnaire included demographic information, screening and vaccination status regarding hepatitis B and related data. Data analysis was done using SPSS v15.

#### **Results:**

Out of the total 174 HCWs who returned questionnaire, there were 68 doctors, 32 final year students, 36 nurses, 23 operation theater/laboratory technicians and 15 sanitary workers. The mean age of study group was 31.68 + 3.95 years. 80.46% of the HCWs had undergone screening for Hepatitis B. Though 93.11% of the HCWs thought they were at risk because of their occupation, only 62.07% were completely vaccinated, 12.64% were partially vaccinated while 25.29% were not vaccinated against hepatitis B. Among those who were vaccinated, only 12.64% had checked post vaccination antibody status. Almost all the HCWs interviewed (96.56%) thought that vaccination can prevent hepatitis B. The most commonly cited reasons for non-vaccination were forgetting dosage schedule, lack of awareness, laziness and negligence respectively. An ample number (78.16%) of the HCWs were aware of the safe practices for preventing transmission of infection.

#### **Conclusion:**

The results show that a substantial proportion of HCWs are not vaccinated against Hepatitis B. It is recommended that all the HCWs should be vaccinated for Hepatitis B and their Anti-HBs levels should be determined, and in case they are not satisfactory, revaccination must be considered to prevent occupation related infection gain and dissemination.



## **ABSTRACT – 26**

“KNOWLEDGE, BELIEFS AND ATTITUDE OF PATIENTS REGARDING TUBERCULOSIS IN MULTAN.”

M. Ijaz Hussain, Nauman Arif Jadoon, Waqar Munir, M. Asif Shehzad, Rehan Yaqoob.  
Nishtar Medical College, Multan.

### **Objectives:**

The objective of this study was to determine the knowledge and attitude of patients visiting outdoor patient department of Nishtar Hospital, Multan regarding tuberculosis (TB).

### **Method:**

168 patients aged 18 years and above were interviewed using a pre-tested structured questionnaire comprising of socioeconomic variables and questions related to TB.

### **Results:**

The patients were predominantly male (65%), had nuclear family structure (78%) and were literate (62%). Majority of patients (81%) had heard about TB. Major sources of information were TV (56%), Newspaper (27%) and Radio (17%). Patients considered pollution (71%), germs (14%) and cough (5%) as major causes of TB. None of the patients knew all symptoms of disease and presence of an asymptomatic stage. Patients were aware that TB is curable and 40% knew about duration of treatment. All patients said that they would tell their near ones if they are diagnosed with TB while 68% people said they would stop taking medications after relief if they had TB. All of the patients who knew about TB reported that one can live a normal life after cure and that disease affects daily activities, marital life and eating habits. 66% and 75% patients respectively thought that TB can cause infertility and death if untreated. 43% people were of the view that TB patients are stigmatized.

### **Conclusion:**

Although majority of patients knew about TB, their overall knowledge was inadequate. Awareness programs aiming at a wider audience addressing all aspects of disease are required to improve knowledge of public about the disease.

## **ABSTRACT – 28**

“IDENTIFICATION OF MYCOBACTERIUM TUBERCULOSIS COMPLEX USING BACTEC MGIT 960.”

Abdul Hannan, Saadia Chaudary, Amna Hafeez  
Department of Microbiology, UHS, Lahore.

### **Objective:**

To differentiate mycobacterium tuberculosis complex (MTC) from non tuberculous mycobacteria (NTM) using Bactec MGIT 960.

### **Method:**

Fifty clinical isolates of mycobacteria were used. Paranitrobenzoic acid (PNB) was incorporated into MGIT tubes at the concentration of 500µg/ml.

### **Results:**

Out of fifty, forty three strains were inhibited in tubes containing PNB, while 7 grow. The MTC strains were all PNB-susceptible while NTM species were all found to be resistant to PNB. The median time to obtain presumptive identification of MTC by inhibition test in the BACTEC MGIT960 system was 6 days.

### **Conclusion:**

Presumptive identification of Mycobacterium tuberculosis complex can be done using PNB in MGIT tubes without using separate expensive instruments.

### **Key Words:**

MTC, NTM, PNB

## **ABSTRACT – 29**

“CHALLENGES FACED BY GENERAL PRACTITIONERS IN RAWALPINDI AND ISLAMABAD IN MANAGEMENT OF TUBERCULOSIS: A QUALITATIVE STUDY.”

Saima Iqbal, Mati ur Rahman  
Shifa College of Medicine, Islamabad

### **Objectives/Aims:**

To determine the challenges that General Practitioners face when managing patients with Tuberculosis (TB)

### **Method:**

A focus group discussion with 12 General Practitioners (GPs) was conducted.

### **Results:**

Numerous challenges are faced by GPs in terms of diagnosis and management mostly due to knowledge gaps. Physicians need to be educated about appropriate diagnostic tests for TB. An undue emphasis was placed on tests like ESR, ICT and serology. Facilities for gold standard tests like sputum smear and culture were not available at all centers. Extra pulmonary TB poses a big diagnostic challenge for Physicians because of lack of facilities for affected organ biopsies. Regarding management, GPs mostly used fixed drug combination therapy, due to good marketing by pharmaceutical companies which is also promoted by latest WHO guidelines. Most participants did not calculate doses for their patients and none maintained a TB register. GPs were also not aware of screening guidelines for close contacts of TB patients. Knowledge about diagnosis of Multi-drug resistant TB (MDR-TB) was also lacking as most of them were not aware of the definition of MDR-TB. Treating pregnant and lactating women with TB is also considered a major challenge for the focus group. Counseling patients with TB is an area which needs attention because it is linked with issues like drug compliance and social stigmatization.

### **Conclusion:**

Knowledge gaps among our GPs regarding management of TB should be filled with printed guidelines and protocols. Educational Seminars should be conducted by experts in the field of tuberculosis for General practitioners regularly to update them about standard treatment practices. Counseling workshops are needed for GPs in this regard as well.

## **ABSTRACT – 31**

“STUDY OF STIGMA ASSOCIATED WITH MENTAL ILLNESS IN MEDICAL STUDENTS AND ROLE OF MEDICAL EDUCATION IN THIS RESPECT.”

Syed Usman Hamdani Muhammad Saad, Ghulam Fatima, Faiza Aslam, Fareed A. Minhas  
Rawalpindi Medical College, Rawalpindi.

### **Objectives/Aims:**

To determine the attitude of students of Rawalpindi Medical College towards mentally ill patients, To seek any association between increasing academic years and attitude of medical students related to stigma associated with mental illness, To determine any difference between the attitude of male and female medical students towards mentally ill patients.

### **Method:**

The data was collected by self-administration of Day's Mental Illness Stigma Scale Questionnaire.

### **Results:**

Statistically significant differences were found amongst the mean scores of all academic years students for the subscales of anxiety (P=0.009), treatability (P=0.003), professional efficacy (P=0.000) and recovery (P=0.000). Statistically significant difference was found on the sub scales of professional efficacy (P=0.001) and recovery (P=0.000) in the categorical levels of stigma among first and final Prof. students implying that final Prof. students were more stigmatized on these sub scales. For level of stigma based on gender of participants, the significant difference existed on the sub scales of anxiety (P=0.000), relationship disruption (P=0.000) and professional efficacy (P=0.022) indicating that female students show a more stigmatised attitude on anxiety and relationship disruption sub scales whereas male students are more stigmatised on professional efficacy sub scale.

### **Conclusion:**

Medical students show a stigmatized attitude on the social domain of stigma and contrary to our hypothesis, positivity in attitude decreases with increasing medical knowledge and exposure with the patients on the medical domain. Attitude of male students was less stigmatizing as compared to the female students

## **ABSTRACT – 32**

“SLEEP PATTERNS AMONG SCHOOLCHILDREN AND THE PREVALENCE OF SLEEP PROBLEMS AND BEHAVIOR DISORDERS.”

Waqar Munir, Nauman Arif Jadoon, Kamran Siddiqui, M. Asif Shehzad, Rehan Yaqoob, M. Ijaz Hussain.  
Nishtar Medical College, Multan.

### Objectives/Aims:

The purpose of this study was to

- Study the sleep patterns of children.
- Determine the prevalence of sleep problems and behavior disorders in children.

### Methods:

The sample in this cross-sectional study consisted of 200 school children studying in various schools of Multan. A questionnaire was distributed among the school students present at the time of administration. The questionnaire had various items to assess children's sleep patterns and problems as reported by parents. Students were asked to deposit the questionnaire the next day. Response rate was 71 %. Data was analyzed using SPSS v 16.

### Results:

Many of the children in the study group had a sleep problem. Prevalence of bed resistance, night time anxiety, night waking, altered sleep duration, sleep disordered breathing, parasomnia, daytime sleepiness were 30.5%, 19.5%, 27%, 41.5%, 9.5%, 22%, 35.5% respectively. 43% of the parents said that they had discussed their child's sleep problem with their pediatrician. 66% of the parents reported their child's quality of sleep as good.

### Conclusions:

The study shows that a substantial number of school children had an ongoing behavior or sleep related problem. Pediatricians should query about sleep problems as these affect the quality of life of patients. Pharmacological and non-pharmacological interventions need to be developed to address this problem. Further studies to determine the causes of these problems are required.

## **ABSTRACT – 33**

“ANTI-HCV DETECTION, A COMPARISON BETWEEN ELISA & ICT.”

Abu Bakar Imran, Muhammad Ibrahim  
FMH-IAHS, FMH College of Medicine and Dentistry Lahore

### **Objectives/Aims:**

To compare the ELISA & ICT Methods for detection of Anti-HCV in term of their specificity and cost-effectiveness

### **Method:**

During two days free camp was organized in March 2008 at Al-Madina Lab for 510 employees of BISE Lahore, the serum of 510 samples was screened by ELISA Kit. Another camp was also organized in April 2008 for same type of employees of Lahore District to detect Anti-HCV using ICT Kit. Specificity of both methods were calculated by using software Medcalc 6.2 and tested by Z-statistic at 5% level of significance.

### **Results:**

ELISA was 93.13 % specific while ICT was 70% specific. The specificity of ELISA was found statistically significant (as  $P < 0.05$ )

### **Conclusion:**

ELISA was found more specific than ICT, on the other hand ELISA was found more technical, time consuming and costly than ICT.

## **ABSTRACT – 36**

“ASSOCIATION OF PERIODONTAL STATUS WITH GLYCEMIC CONTROL IN TYPE 2 DIABETES.”

Muhammad Haseeb, Khadija Irfan Khawaja<sup>2</sup>, Aziz Fatima<sup>2</sup>, Bader Munir<sup>1</sup>  
Punjab Dental Hospital Lahore<sup>1</sup>, Services Hospital<sup>2</sup>, Lahore.

### **Objectives/Aims:**

The aim of the study was to evaluate the association of glycemic control with the severity of gingivitis and periodontitis in type 2 diabetic subjects.

### **Method:**

It was an observational analytical study conducted at Diabetes Management Center, Services Hospital Lahore. After ethical approval and written informed consent, clinical examination was carried out. Diabetic subjects with gingivitis were included. Gingival index was used to assess the severity of gingivitis. Probing depth, gingival recession, and attachment loss were recorded to get the periodontal status. Michigan probe “0” was used for all measurements. Oral hygiene was scored using simplified oral hygiene index. Glycemic control was evaluated by HbA1C value.

### **Results:**

A total of 112 type 2 diabetic subjects were included. Mean age was 58.73 and 61.6% were females. Difference in means of age, gingival index, attachment loss, probing pocket depth, gingival recession, simplified-oral hygiene index were recorded and compared with HbA1C value of <7.0 as good glycemic control and  $\geq 7.0$  as moderate-poor glycemic control. Using independent sample t-test, difference of gingival index ( $p < 0.001$ ), gingival recession ( $p < 0.05$ ), attachment loss ( $p < 0.05$ ) and probing pocket depth ( $p < 0.05$ ) were found to be significant. There was no significant difference observed in age and oral hygiene status among the two samples.

### **Conclusion:**

Glycemic control influences periodontal status of the diabetic patients. Gingivitis which is the earlier manifestation and attachment loss which is the hallmark of periodontitis is directly associated with glycemic control.

## **ABSTRACT – 37**

“EFFECTS OF BISPECTRAL INDEX MONITORING ON ISOFLURANE CONSUMPTION, HEMODYNAMICS AND RECOVERY FROM ANESTHESIA IN ELDERLY PATIENTS.”

Faraz Shafiq, Hamid Iqil Naqvi, Aliya Ahmed  
Aga Khan University Hospital Karachi

### **Introduction:**

With the advancement in medical sciences the number of elderly patients requiring anesthesia intervention has increased. Age related limited physiological reserves and associated comorbidities in these patients require careful titration of anesthetic agents. The use of Bispectral index (BIS) monitoring may be helpful for the titration of anesthetic agents, maintaining hemodynamics and recovery profiles in elderly patients.

### **Objectives:**

The objectives were to evaluate the effect of BIS monitoring on:  
Isoflurane consumption and hemodynamics of patients during maintenance of anesthesia.  
Recovery profiles of patients at the end of anesthesia

### **Methods:**

The study was the quasi experimental, conducted during one year period at main operating rooms Aga Khan University hospital Karachi . 60 patients of age 60 years and above were enrolled in either in Standard practice group (SP) or (BIS) group. In SP group the anesthesia was maintained as a routine standard practice while in BIS group by maintaining BIS score between 45 – 55. The same standard of care was maintained between groups. Data including demographics, isoflurane consumption, hemodynamics and recovery profiles were recorded in both groups.

### **Results:**

The total isoflurane usage was lower ( $p=0.001$ ) in BIS group. The time to eye opening, extubation and ready to shift was shorter ( $p= 0.0001$ ) in BIS group. The patients in BIS group had higher PAR score ( $p=0.0001$ ) than the SP group.

### **Conclusion:**

The use of BIS monitoring in elderly Pakistani patients resulted in 40 % reduction of isoflurane usage. The patients having BIS monitoring awoke earlier and had better recovery profiles after anesthesia.

Key words: Isoflurane, BIS monitoring, Elderly



## **ABSTRACT – 38**

“TRENDS OF THYROID DYSFUNCTION ASSOCIATED WITH LARGE GOITER SIZE.”

Humaira Rasheed<sup>1</sup> and Shan Elahi  
Mayo Hospital, Lahore

### **Objectives/Aims:**

To evaluate the association of increase in goiter size with type of thyroid disorders in females of reproductive age (20-45 years) residing in Lahore.

### **Method:**

This study was carried out at Centre for Nuclear Medicine (CENUM), Mayo Hospital Lahore. The thyroid gland was scanned with <sup>99</sup>TcO<sub>4</sub>. Serum FT<sub>4</sub>, FT<sub>3</sub> and TSH were determined by radioimmunoassay by using commercial kits.

### **Results:**

Among 1614 goiterous women 866 (53.7%) had palpable and remaining 748 had visible goiter. A comparison of thyroid dysfunction showed that hyperthyroidism was more common in visible than palpable goiterous patients (10.4 % Vs 2.6%; p<0.05). In contrast incidence of hypothyroidism was low in visible goiter women but this difference was not significant. Visible goitrous patients were mostly nodular (63.0%) but incidence of hyperthyroidism was significantly higher in diffuse as compared to nodular women (17.3% Vs 6.4%; p<0.05). Euthyroid patients with diffuse visible goiter had significantly (p<0.05) low serum TSH as compared to their counterpart with palpable goiter.

### **Conclusion:**

Increase in goiter size is associated with nodularity, hyperthyroidism and low serum TSH in women of reproductive age residing in study area.

## **ABSTRACT – 41**

“ALLRED SCORING FOR ER REPORTING AND IT’S IMPACT IN CLEARLY DISTINGUISHING ER NEGATIVE FROM ER POSITIVE BREAST CANCERS.”

Asim Qureshi<sup>1</sup>, Shahid Pervez<sup>2</sup>

<sup>1</sup>Shaukat Khanum Memorial Cancer Hospital & Research Centre Lahore, <sup>2</sup>Aga Khan University Karachi.

### **Objectives/Aims:**

To determine the scoring of Estrogen Receptor (ER) status in carcinoma breast by Allred method that is essentially bimodal and to compare the results with a conventional scoring system.

### **Method:**

This study was carried out at Aga Khan University Hospital Section of histopathology over a period of 18 months i.e. Jan 2005 to June 2006. Anti ER antibody (clone D07) was used for all IHC stains using envision detection system. ER stains of 860 consecutive breast cancer cases were reviewed and rescored by both conventional and Allred method of ER scoring.

### **Results:**

Comparison of results showed that there was a substantial decrease in weak positive cases from 18% to 5% by rescoring using Allred scoring system compared to conventional scoring. The data was analyzed using chi square test. The sensitivity and specificity of Allred method were calculated; Sensitivity of Allred method was 99.4% & Specificity of Allred method was 99.5% whereas sensitivity and specificity of conventional method was 88.0 % and 84 % respectively.

### **Conclusion:**

Our data suggest that by using Allred scoring the ER staining results will be essentially bimodal i.e. completely negative or unequivocally positive. If pre analytical factors are controlled there should be very few cases which are weak ER positive and these should be considered as positive for treatment purposes. ER negative should be reserved only for those cases which show complete absence of staining.

**ABSTRACT – 42**

**Withdrawn by author**

## **ABSTRACT – 43**

### **“DIAGNOSTIC UTILITY OF P63 IN DIFFERENTIATING PROSTATIC ADENOCARCINOMA AND UROTHELIAL CARCINOMA.”**

Samina Mansoor, Nasir-ud-Din  
Shaukat Khanum Memorial Cancer Hospital & Research Centre, Lahore

#### **Objectives/Aims:**

Prostatic adenocarcinoma and urothelial carcinoma of the urinary bladder are the most common and fifth most common cancers in men, respectively. High grade forms of these tumors may present ambiguous morphologic features that do not permit a definite diagnosis. This distinction between the two tumors has significant staging and therapeutic implications. Hence, an accurate diagnosis is essential for optimal patient care. p63 is a new marker which can be used in this context. It is expressed in most of the urothelial carcinomas and negative in majority of prostatic adenocarcinomas. The diagnostic utility of p63 in differentiating between prostatic adenocarcinomas and urothelial carcinoma was studied in our setting.

#### **Method:**

This study was carried out at Shaukat Khanum Memorial Cancer Hospital and Research Centre, Lahore. 50 cases of urothelial and 50 cases of prostatic adenocarcinoma were included. p63 immunohistochemical stain was performed and intensity of staining and percentage of positivity was noted.

#### **Results:**

The ages of patients with prostatic adenocarcinoma ranged from 49 to 86 years with a median age of 71 years and 41 to 83 years for urothelial carcinomas with a median age of 60.5 years. Out of 50 urothelial carcinomas, 31 were low grade (62%) and 19 were high grade (38%). p63 expression was seen in 26 cases of low grade urothelial carcinomas (83.8%), and 18 high grade carcinomas (94.7%). Overall p63 was positive in 44 of 50 urothelial carcinomas (88%). The Gleason score of the patients of prostatic adenocarcinoma was between 5 and 9. Gleason score 9 was found in 22 cases (44%) and 7 in 18 cases (36%). None of the prostatic adenocarcinomas expressed p63. The results were statistically significant with a P value of 0.001.

#### **Conclusion:**

p63 can be used as a reliable marker to distinguish prostatic adenocarcinomas from urothelial carcinomas in difficult cases in conjunction with other markers like PSA.

## **ABSTRACT – 44**

“STUDY OF DIABETIC HYPERTENSIVE NEPHROPATHY IN THE LOCAL POPULATION OF PAKISTAN.”

Ansa Butt<sup>1</sup>, Samreen Riaz <sup>1</sup>, Saadia Shahzad Alam<sup>2</sup>, M. Waheed Akhtar<sup>3</sup> and Shahida Hasnain<sup>1</sup>  
Department of Microbiology & Molecular Genetics<sup>1</sup>, and School of Biological Sciences<sup>3</sup>, University of the Punjab<sup>1, 3</sup> Lahore. Federal Postgraduate Medical Institute, Shaikh Zayed Hospital<sup>2</sup>, Lahore.

### **Objectives/Aims:**

The objectives of the present research work are to study the biochemical parameters and levels of protein biomarkers affecting to hypertensive diabetic nephropathy in the Pakistani population.

### **Method:**

100 hypertensive nephropathic diabetic patients and 50 age, sex-matched normal healthy controls were recruited from Sheikh Zayed Hospital, Lahore, Pakistan. Individuals were equally divided into three different groups, group A was control, group B was diabetic hypertensive with nephropathy and group C was diabetic hypertensive without nephropathy. Blood and 24hrs urine were collected and stored for further analysis. Biochemical parameters related to the hypertensive diabetic nephropathy and specific proteins markers were analysed by 2-D liquid chromatographic system followed by mass spectrometric standard referred protocols. The proteins which showed variation between test and control samples were identified by MALDI TOF analysis.

### **Results:**

The biochemical data showed significantly higher in values of fasting blood sugar, diastolic and systolic blood pressure, total serum and urinary proteins in the diabetic groups with/without hypertensive nephropathy as compared to control in group A. The levels of proteins act as biomarker like microalbuminuria are the most significant in the urine samples of hypertensive nephropathy group B as compared to other groups A and C.

### **Conclusion:**

Prevalence of proteins in diabetic hypertensive with nephropathy is higher as compared to normal without nephropathy patients in the Pakistani population.

## ABSTRACT – 45

“CHANGES IN BLOOD PROTEIN PROFILE, HEMATOLOGY AND LIVER HISTOLOGY IN WATER DEPRIVED RATS.”

Iqbal Marium  
University of the Punjab, Pakistan.

### Objectives/Aims:

To assess the effects of various duration of water deprivation on blood protein profile, hematology and liver histology in rat models.

### Method:

Gel electrophoresis (SDS-PAGE) and Syngene genius system were used to study the protein profile of serum, automated hematology analyzer (Model MEK-6318 K, Power Input 190 VA, 220-240V, Nihon Kohen Corp) for hematological parameters and microtomy, hematoxiline and eosine staining for liver histological study.

### Results:

- A gradual decrease in % raw volume was observed in the higher molecular weight proteins corresponding to 116, 97, 66 kDa. Increase in concentration in lower molecular weight serum proteins corresponding to the molecular weight 24, 20 and 14.2 kDa was observed.
- Statistical analysis by one way ANOVA during the whole study determined a significant increase in hematocrit (P=0.0038\*\*), hemoglobin (P=0.0009\*\*\*) and RBCs (P=0.0040\*\*). While decrease in WBCs was non-significant (P=0.0666) statistically. Fluctuation in Mean corpuscular hemoglobin (P=0.5217), Mean corpuscular hemoglobin concentration (P=0.1211), Mean corpuscular volume (P=0.7147), Platelets (P=0.0653), Mean platelets volume (P=0.3906) and Chloride (P=0.5273) were found non-significant statistically.
- Histological study of liver revealed an enlargement of the nuclei and more pronounced intracellular spaces after 3days of water deprivation. Another common alteration on 3rd and 6th was the dilation in the blood vessels and recruitment of some cells, most probably the macrophages, towards the blood vessels. On 9th day a destruction of tissue was more prevalent over all other alterations.

### Conclusion:

Voluntary or involuntary dehydration is very hazardous for body. Therefore it is suggested to take frequent water according to body requirements and minimize caffeinated drinks. There is a need to establish a guideline to describe warning signs of dehydration and likely scenarios where dehydration may occur.

## **ABSTRACT – 46**

“PSYCHIATRIC MORBIDITY AMONG DENTAL STUDENTS IN PAKISTAN.”

Ali Raza, Nauman Arif Jadoon, Rehan Yaqoob, Zeshan Sharif Ch., Muhammad Asif Shehzad.  
Nishtar Medical College, Multan.

### **Objectives/Aims:**

The objective of this study was to determine the prevalence of psychiatric morbidity among students of dental faculty of Nishtar Medical College, Multan.

### **Method:**

This cross sectional study was carried out among dental students of Nishtar Medical College, Multan in 2008. Students who had spent more than 6 months in college, had no physical illness and were present at the time of administration of questionnaire were included. A structured validated questionnaire indigenously developed in Urdu, Aga Khan University Anxiety and Depression Scale, with a cut-off value of 19 was used to assess the prevalence of anxiety and depression. SPSS v.16 was used to analyze the data.

### **Results:**

Out of 212 students, 179 were present at the time of administration of questionnaire. Response rate among students was 72.63. The mean age of study group was  $19.86 \pm 1.40$  years. A high prevalence of anxiety and depression (52.31%) was found in students of dental faculty of Nishtar Medical College, Multan. Older age (OR=1.46), being unmarried (OR=1.53), belonging to low socioeconomic group (OR=1.71), being in first year of study (OR=1.93) and living in urban locality (OR=3.34) affected the prevalence of anxiety and depression in students. There was no effect of gender on prevalence of psychiatric morbidity.

### **Conclusion:**

The results show that dental students constitute a vulnerable professional group who has a high percentage of psychiatric morbidity.

## **ABSTRACT – 47**

“FACTORS AFFECTING SLEEP DURATION OF A SAMPLE OF PAKISTANI CHILDRE.”

Kamran Siddiqui, Nauman Arif Jadoon, Waseem Shahzad Rao, Rehan Yaqoob, M.Asif Shehzad, Waqar Munir.  
Nishtar Medical College, Multan.

### **Objectives/Aims:**

The purpose of this study was to

- Estimate the sleep duration in Pakistani school children.
- Analyze sleep habits and practices of children.

### **Method:**

In this study, we surveyed the parents of school using a structured pre-tested questionnaire containing questions related to child’s bedtime, rise time, sleep duration at night, daytime naps and their duration during weekdays and weekends, sleepiness, tiredness, bruxism, quality of sleep etc. Consent was taken before administering the questionnaire to the patients. Data was analyzed using SPSS v 16.

### **Results:**

The study comprised 118 boys and 82 girls of school going age. During weekdays, bedtime for the whole group was 21.62 +/- 1.86 hours, rise time was 6.26 +/- 0.92 hours, night sleep time was 10.52 +/- 1.94 hours, and nap time was 0.6 +/- 0.9 hours while total sleep time (TST) was 11.12 +/- 2.84 hours. Analysis revealed that TST was affected positively by regularity of bedtime and sleeping with parents. TST was negatively affected by a number of factors, medical illness, psychological illness, day time nap being the main factors affecting total sleep time duration.

### **Conclusion:**

Sleep duration in Pakistani children is more than the published data from other countries. Several factors seem to be affecting sleep duration and sleeping habits of children including medical and psychological illness, nap time, sleeping in separate room.



## **ABSTRACT – 48**

### **“TRAINING OF NON-PHYSICIAN PRACTITIONERS TO IDENTIFY AND REFER DIABETIC PATIENTS”**

Ahmed Shuja Khan<sup>1</sup>, Rizwana Kitchlew<sup>2</sup>, Amir Omair<sup>2</sup>, Khayyam Shamsher<sup>2</sup>, Ahmad<sup>2</sup>, Syed Agha Abbas Haider<sup>2</sup>, Ayesha Humayun<sup>3</sup>,  
Central Park Medical College<sup>1</sup>, Lahore, FMH College of Medicine & Dentistry<sup>2</sup>, Lahore, Continental Medical College<sup>3</sup>, Lahore.

#### **Objectives/Aims:**

To improve the practices of non-physician practitioners on early diagnosis and referral of patients with Diabetes Mellitus.

#### **Method:**

Study conducted in a peri-urban village community in Lahore, Pakistan, during 2007-2008. The design used was Quasi-experimental, in order to document the effect of training of non-physician practitioners on improving their diabetic patient identification practices and referral to the hospital for diagnostic and treatment facilities. Fasting Blood glucose test was used to identify hyperglycemics out of those referred by the non-physician practitioners.

#### **Results:**

Patient referral was increased by 48.44% after training. Identification of hyperglycemic patients on the basis of signs and symptoms was 47% before and 48% after training and the difference between two proportions was not significant.

#### **Conclusion:**

Increased number of referrals showed motivation of non-physician practitioners towards the task however more prolonged and structured training program is required to utilize their services in community as part of our health care delivery system.

## **ABSTRACT – 49**

“FOURNIERS GANGRENE: DON'T DELAY IT”

K.H.BHATTI  
Jinnah Hospital, Lahore

### **Introduction:**

Fournier gangrene is a necrotizing infection that involve the soft tissue of the male genitalia. It is a specific form of necrotizing fasciitis.

### **Materials and Methods:**

All patients who presented with F gangrene had a complete history and physical examination. Lab studies included Complete blood count, Electrolyte, blood urea nitrogen(BUN), Creatinine, blood glucose level. Blood and urine culture and coagulation profile.

Imaging Studies consisted of conventional radiology, Ultrasonography. CT scan and MRI were done in selected cases.

### **Results:**

Study was conducted between Oct 2000 TO Oct2008. Total No. of patients were 22. All belonged to male gender. Age wa 18 to 70 years. Delay in presenting to medical care was 3 to 15 days. Major signs and symptoms were pain in scrotum 5, pyrexia 4, erythema 2, sepsis 4, crepitus 4, cellulitis 3. Causative factors included bruise and scratch 6, stricture and urethral dilatation 5, foley catheter 4, anorectal abscess 2, no cause 5. Comorbid included DM 2, renal failure 2, CVA 3, HTN 2, alcoholism 2, malignancy 2. Urinary cultures were done in all cases and the results were; E coli 7, Klebsiella 3, Staphylococcus 5, Candida 2, Streptococcus 2. Duration of hospital stay was 3 to 47 days. As regards Surgical Intervention Suprapubic cystostomy was done in all 22 cases, wide surgical debridement in all 22, secondary suturing in 8, skin grafting 4. Hence 16 patients were alived and 6 were dead.

### **Conclusion:**

Fournier gangrene is truly a surgical emergency. Mortality rate is high. In early stage clinical presentation may not be prominent. Rapid and accurate diagnosis remains a key component to successful treatment. Fluid, hemodynamics and nutritional support, broad spectrum antibiotic and repeated surgical intervention are the corner stone of treatment.

## **ABSTRACT – 51**

“DETECTION OF CARBAPENEM RESISTANCE IN SAMPLES RECEIVED AT SHAUKAT KHANUM HOSPITAL LABORATORY.”

S.Younas, S.Mukhtar, Farhana Butt

Shaukat Khanum Memorial Cancer Hospital and Research Centre, Lahore.

### **Objectives:**

Our objective was to identify carbapenemase producing Enterobacteriaceae in our laboratory isolates using phenotypic methods.

### **Method:**

We conducted a retrospective laboratory based study. From clinical samples received at Shaukat Khanum laboratory between April 2007 to May 2009 we selected all Enterobacteriaceae reported as resistant to Ertapenem. Antimicrobial testing was performed using Kirby Bauer technique with interpretation according to Clinical Laboratory Standards Institute (CLSI) guidelines.

For carbapenemase detection we used Modified Hodges Test (MHT) as per CLSI guidelines. E.coli ATCC 25922 was used as control. For Metallo-beta-lactamase (MBL) detection we used Combined Disc Synergy Testing as described by Yong et al (2002). In brief the method involves the use of an imipenem disc with and without EDTA. The inhibition zones of the imipenem and imipenem + EDTA were compared after 24 hours incubation. A zone diameter difference  $\geq 7$ mm was interpreted as a positive result for MBL. Ceftazidime discs were also used in the same manner.

### **Results:**

During the study period 14,991 cultures were positive of which 8,252 were Enterobacteriaceae and of these 84(1%) met our selection criteria. We were able to test 42 of these isolates. MHT was positive in 16/42 (38%) and 12/16 (75%) also tested positive for MBL by both imipenem and ceftazidime disc tests. Of the 26 isolates which tested negative by MHT a further 11 isolates were positive for MBL by both imipenem and ceftazidime. A further 9 isolates were positive for MBL with ceftazidime + EDTA method alone. Bringing the total number of MBL positive isolates to 32/42 (76%).

### **Conclusion:**

In our study prevalence of carbapenem resistant Enterobacteriaceae is still low. MBL was the predominant carbapenemase detected from these isolates.

## ABSTRACT – 52

“DETECTION OF INDUCIBLE AMPC BETA-LACTAMASE IN SAMPLES RECEIVED AT SHAUKAT KHANUM HOSPITAL LABORATORY.”

Zunaira Rao, S Sattar, Farhana Butt.

Shaukat Khanum Memorial Cancer Hospital and Research Centre, Lahore.

### Objectives:

Bacteria with inducible AmpC may appear sensitive to beta-lactams invitro but, in the patient, exposure to these antibiotics may result in treatment failure and increased mortality. The objective of our study was to determine the prevalence of inducible AmpC producing Enterobacteriaceae within clinical samples received in our laboratory using an inducer based test.

### Method:

We conducted a prospective laboratory based observational study.

From clinical samples received at Shaukat Khanum hospital laboratory between 1/04/09 to 31/06/09, we selected all isolates of *Enterobacter* spp., *Citrobacter freundii*, *Morganella morganii*, *Pantoea* spp., *Providencia* spp. and *Serratia marcescens*. Isolate identification, susceptibility testing and Extended spectrum beta-lactamase (ESBL) detection was conducted using Kirby-Bauer and Clinical Laboratory Standards Institute (CLSI) guidelines.

To detect Inducible AmpC beta-lactamase we chose the Ceftazidime-Imipenem Antagonism Test as described by Canterelli et al (2007). This is a disc-based method using imipenem and ceftazidime as inducers of AmpC.

The presence of inducible AmpC is indicated by visible decrease in the zone of inhibition between ceftazidime and imipenem or ceftazidime and ceftazidime and ceftazidime.

### Results:

133 isolates met our selection criteria of which we were able to test 97. Of these isolates, inducible AmpC was detected in forty-six (47%), 9 of which demonstrated both AmpC and ESBL production. AmpC positive isolates were; *Enterobacter* spp. 28/42 (66%), *Morganella morganii* 11/15 (73%), *Citrobacter freundii* 4/11(36%), *Pantoea* spp. 1/19 (5%) and *Providencia* spp. 2/5 (40%). Of the 5 *Serratia marcescens* isolates none were AmpC positive.

All AmpC positive isolates were fully susceptible to ceftriaxone and 75% were also susceptible to Cefuroxime by CLSI criteria.

### Conclusion:

The prevalence of inducible AmpC beta-lactamase was high in our study sample. Susceptibility to 2nd and 3rd generation cephalosporins by conventional testing means this resistance mechanism would be overlooked unless inducer-based screening methods are used.

## **ABSTRACT – 55**

“PERCEPTION OF DOCTORS WORKING AT A TERTIARY CARE HOSPITAL OF KARACHI REGARDING KNOWLEDGE UPGRADATION THROUGH INTERACTIONS WITH PHARMACEUTICAL REPRESENTATIVES.”

Faraz Arif, Seema Mumtaz<sup>2</sup>, Hina Sajid<sup>1</sup>  
Institute of Business Management<sup>1</sup>, Karachi, Hamdard University<sup>2</sup>, Karachi

### **Objective:**

To know the perception of doctors working at a tertiary care Hospital of Karachi regarding knowledge upgradation through interactions with pharmaceutical representatives during February to April 2009.

### **Methods:**

A survey was conducted among 50 doctors working in the Gynaecology departments of Civil Hospital & Lyari General Hospital Karachi. Each doctor completed a questionnaire comprising of questions regarding their perception about knowledge up gradation through interaction with pharmaceutical representatives.

### **Results:**

90% of doctors perceive that they receive quality information from pharmaceutical representatives; 78% of doctors think that their knowledge is strengthened through interaction with pharmaceutical representatives and 8% of doctors think that pharmaceutical representatives just waste their time.

### **Conclusion:**

Most of the doctors that participated in the study perceived their relationship with pharmaceutical representatives as beneficial in terms of knowledge up gradation.

## **ABSTRACT – 57**

### **“FIRST FEED IN NEWBORN BABIES- ARE WE FOLLOWING WHO RECOMMENDATIONS?”**

Muhammad Faheem Afzal, Syed Muhammad Javed Iqbal, Muhammad Ashraf Sultan  
King Edward Medical University/ Mayo Hospital, Lahore.

#### **Background:**

WHO universally recommends colostrum, a mother's first milk or the 'very first food' as the perfect food for every newborn. There is widespread lack of awareness of its qualities and its key role in contributing to the health and growth of the newborn. Feeding water or other liquids instead of colostrum deprives the child of a good start in life. There are 170 million underweight children around the world, 3 million of whom die each year as a result of being underweight. Pakistan ranks on 73rd in infant mortality rate & 90th in under five mortality rate. Majority of deaths are preventable. WHO recommends that all children must be exclusively breastfed for 6 months. Feeding colostrum in the first hour is the first step. Objective: To study the feeding practice regarding first feed given to the newborn babies

Study design: Descriptive study

#### **Setting:**

Department of Paediatrics, King Edward Medical University/ Mayo Hospital, Lahore.

Duration: Six months (January 2009 to June 2009)

#### **Methods:**

After consent from mothers, 800 lactating mothers (having children less than two years of age) were enrolled and interviewed. Those mothers were excluded from the study whose babies got neonatal admission immediately after birth due to any reason. Information was recorded on a structured pretested proforma.

#### **Results:**

Out of 800 children, 428 (54%) were male and 372 (46%) females. Out of total, 346 (43%) mothers fed colostrums to their newborn babies as first feed, 130 (16%) fed honey, 118 (14.8%) fed formula milk, 106 (13%) gave araq, 70(9%) gave ghutti, 13 (2%) animal milk, 9 (1%) water & sugar, while 8(1%) gave other feed like desi ghee, fruit juices etc. Out of 345(43%) who fed colostrums, 196(57%) had health education by health personal, 91(26%) had personal religious belief, 55(16) got motivation from relatives/friends, while 3 (01%) got health education from media. Out of 455(57%), who did not started with colostrums, 264(58%) got influenced by their family traditions, 156(34%) did not breastfed their babies due to medical reasons, 19(4%) could not feed their baby with colostrums due to ignorance, while 16(3.5%) were unable to feed their babies due to other reasons.

#### **Conclusion:**

Prelacteal feed is still a common practice & WHO recommendations for feeding colostrum as very first feed to the newborn is yet not followed in full spirit.

Key words: Colostrum breastfeed prelacteal feed

## **ABSTRACT – 58**

“LEARNING STYLE OF STUDENTS AT A MEDICAL COLLEGE.”

Nauman Arif Jadoon, M. Asif Shehzad, Waseem Shahzad Rao  
Nishtar Medical College, Multan.

### **Objectives/Aims:**

The objective of this study was to determine the learning style of medical students studying in MBBS in Nishtar Medical College, Multan. We also wanted to explore the relationship of learning style and academic performance.

### **Method:**

A cross sectional study was carried out using the Kolb Learning Style Inventory (LSI) 3.1. This inventory divides learners into four groups: converging, accommodating, assimilating, and diverging. The convergers learn by actively solving problems, accommodators by using emotion and interpersonal relationships, assimilators by abstract logic and divergers learn best by observation.

### **Results:**

Forty six out of 75 questionnaires that were distributed were correctly filled and returned. The analysis revealed that prevalent learning style was assimilating (39.13%) followed by diverging (30.43%), converging (17.39%) and accommodating (12.5%). Assimilators were mostly male, from English medium schools, passed in annual (60%), had least positive view about changes in exam system and reported highest level of satisfaction with college teaching. Divergers were mostly male, from Urdu Medium Schools, had highest average marks in exams, most reported positive view about changes in exam system. Convergers were mostly females from English medium schools and showed highest satisfaction with professional exam format and conduct. Accommodators were mostly male from Urdu medium schools that scored lowest average marks and were least satisfied with college teaching.

### **Conclusion:**

The study shows that learning styles and strengths and weaknesses of each style differ in the current examination system. There is a need of developing teaching and assessment methodology which caters to needs of students from each group enhancing their academic performance without favoring any one learning style.

## **ABSTRACT – 60**

“STUDY OF METHICILLIN-RESISTANT *STAPHYLOCOCCUS AUREUS* IN A TERTIARY CARE HOSPITAL.”

Zaeema Khan, Saba Riaz, Shahida Hasnain  
University of the Punjab, Lahore

### **Objectives/Aims:**

The increasing use of antibiotic drugs in the world and in our society has made Methicillin-resistant *Staphylococcus aureus* a very serious cause of nosocomial infections. The aim of the study was to analyze the antibiotic resistance in MRSA isolated from a tertiary care hospital by plasmid analysis and determine the resistance genetic location.

### **Method:**

33 MRSA isolates were obtained from different clinical samples and were studied for resistance to antibacterial drugs by Kirby-Bauer method. Plasmid isolation was done by the Kleenhammer method. Curing and transfer experiments were used to determine the genetic location of their resistance determinants. Conjugation was done by mixed transfer method. Transformation was done by Willets method.

### **Results:**

The strains were resistant to oxacillin, penicillin, amoxicillin, ampicillin, cephradine, cefuroxime, ciprofloxacin, gentamycin, erythromycin, fusidic acid, and co-trimoxazole. Almost all strains were susceptible to vancomycin showing that there is no emergence of VISA or VRSA. Most strains were susceptible to ceftriaxone, novobiocin, teicoplanin, tazobactam. Resistance to the antibacterial drugs was plasmid encoded by a 30kb heavy plasmid. By curing the strains plasmid was lost. Mixed-culture transfer and conjugation experiments with strains MSSA and MRSA S1 showed the presence of multidrug resistance in MSSA which was confirmed on agarose gel electrophoresis. Transformation experiments showed the uptake of plasmid DNA by MSSA strain also confirmed on agarose gel.

### **Conclusion:**

Multidrug resistance in *Staphylococcus aureus* is of major concern and may lead to the emergence of serious issue in society. Further analysis of the plasmid encoded resistance markers shows that MRSA is easily transferable to other bacteria.



## **ABSTRACT – 61**

### **“HISTOPATHOLOGICAL CHARACTERISTICS AND HORMONE RECEPTOR STATUS OF METAPLASTIC BREAST CARCINOMA IN PAKISTAN.”**

S. Mansoor, F. Bashir, M. Tehseen, R. Butt, M. Usman Rashid  
Shaukat Khanum Memorial Cancer Hospital & Research Centre, Lahore

#### **Objectives:**

Breast cancer is a heterogeneous disease encircling a large diversity of pathological entities and a range of clinical behavior. Histopathological characteristics of breast tumor mirror the influence of a variety of biological processes. The pathological evaluation of breast tumor provides the source for prediction of recurrence risk and treatment modality. Metaplastic breast carcinoma represents an infrequent form of malignancy that constitutes between 0.2%-5% of all breast cancers. Pakistan has one of the highest rates of breast cancer among Asian populations. Since little is known about the pathological characteristics of MBC in Pakistan, this study aims to explore different histological types of metaplastic breast carcinoma and expression of ER, PR and HER-2 in this population.

#### **Method:**

A total of 34 biopsy proven MBC patients were identified at the SKMCH & RC, Lahore, Pakistan between June 1999 and February 2008.

26 formalin fixed paraffin embedded blocks were cut, stained and examined. H&E slides were reviewed and tumor was classified according to WHO criteria. ER, PR, Her-2 immunohistochemical stain was performed on 26 biopsy proven metaplastic breast carcinomas and controls. Information regarding patient age, tumor size, tumor type, lymph node status and expression of ER, PR and Her-2 were recorded.

#### **Results:**

26 female patients, age ranging from 25 years to 80 years (mean 46) were included in the study. Tumor size ranged from 2.2 cm to 19 cm (mean 5.5 cm).

The tumor were classified according to WHO criteria and seven histologic subtypes were recognized including; Adenocarcinoma with squamous differentiation 14 (53.8%), carcinoma with chondroid metaplasia 4 (15.4%), Squamous cell carcinoma 3 (11.5%), Carcinoma with squamous differentiation 2 (7.7%), Carcinoma with osseous differentiation 1 (3.8%), Carcinoma with chondroid and osseous metaplasia 1 (3.8%) and Carcinoma with spindle and chondroid differentiation 1 (3.8%).

Regarding stage of patients, 5 (19.27%) patients had pathological T stage pT2, 9 (34.6%) were pT3 and in 12 patients no tumor size was mentioned in the report.

7 out of 26 patients presented with histologically proven metastatic disease, while no lymph node metastasis was noted in 8 patients. No axillary dissection was done in remaining 11 patients. All tumors were of high grade. All MBC cases were negative for ER (100%), whereas majority of the tumor were negative for PR (96%) and HER 2 (88.7%) expression.

#### **Conclusion:**

Our study shows that MBC is a rare tumor which presents with large tumor size, high tumor grade, lack of ER, PR, HER-2 expression in Pakistani population. As MBC is a triple negative disease so this may have an impact over future treatment modalities.

## **ABSTRACT – 62**

“PRIMARY TRIAGE, EVACUATION PRIORITIES AND RAPID PRIMARY DISTRIBUTION BETWEEN ADJACENT HOSPITALS — LESSONS LEARNED FROM A SUICIDE BOMBER ATTACK AT MALL, LAHORE.”

Ania Fida, Gul Afshan, Mehreen Mehmood  
King Edward Medical University Lahore

### **Objectives/Aims:**

Terrorist attacks have occurred in Lahore that caused mass casualties. The objective of this study was to draw lessons from medical response to an event that occurred on 27th May 2009 at Rescue 15 Building, the lessons pertain to the management of primary triage, evacuation priorities and rapid primary distribution between adjacent hospitals and operational mode of participating hospitals during the event.

### **Method:**

Data were collected in formal debriefings both during and after the event. Data were analyzed to learn about medical response components, interactions and main outcomes. The event is described according to Disastrous Incidents Systematic Analysis Through-Components, Interactions and Results (DISAST-CIR) methodology.

### **Results:**

A total of 360 wounded were evacuated from the scene out of which 50 were severely injured and 310 were mildly injured. Amongst the injured 48 were policemen, 5 women and rest civilians. The first ambulance arrived 2 minutes after the explosion. Patients were distributed between 4 hospitals. Mayo Hospital (a non-official level-1 Trauma Centre) received 13 dead bodies and 115 injured patients. Ganga Ram hospital received 8 dead bodies and 156 injured patients. Services hospital received 2 dead bodies and 84 injured patients. 5 mildly injured patients were received by Jinnah hospital. All the receiving hospitals were operated according to the mass-casualty incident doctrine. There were 23 ambulances of 1122 and Edhi.

### **Conclusion:**

When a mass casualty incident occurs in the vicinity of more than one hospitals, primary triage, evacuation priority decisions-making and rapid distribution between all of the adjacent hospitals enables efficient and effective containment of the event.

## ABSTRACT – 63

“SURVIVAL PROBABILITY OF PLASMODIUM FALCIPARUM AGAINST CHLOROQUINE IN PUNJAB, PAKISTAN.”

Muhammad S. Rana<sup>1</sup>, Tanveer, A.<sup>2</sup> and Ammara H. Tahir<sup>2</sup>

D.G. Health Services <sup>1</sup>, University of the Punjab<sup>2</sup>, Lahore. Allama Iqbal Medical College<sup>3</sup>, Lahore.

Abstract: 5952 persons screened during the malaria non transmission season (November-January) in five districts of Punjab, Pakistan from 2000-05 showed malaria incidence (%) of 3.10 for Plasmodium vivax and 23.67 for P.falciparum. Out of 1409 (23.67%) positive cases of P.falciparum 404 subject with uncomplicated falciparum malaria were tested against chloroquine on day 1,2,3,7,14,21 & 28 by in vivo technique showed 35.4 % resistance with 31.2% RI, 4.2% RII and zero RIII. Two variables were found important predictors of treatment failure; a young age and high parasitaemia (>6000/ $\mu$ l) at day 0. Parasite density / $\mu$ l showed positive correlation with the resistance and highest resistance (53.8%) was associated with parasitaemia /  $\mu$ l of 6000 or above. The treatment failure (resistance) was found 19%, 36%, 20% and 25% in first, 2nd, 3rd and 4th week respectively. The significant predictors of parasite survival were age and parasitaemia. The survival of parasite was higher (58%) among positive cases than negative cases (18%) at day 3. Keeping in the view these findings the adoption of combination therapy as first line treatment for uncomplicated falciparum malaria is safely suggested.

Key words: Plasmodium, resistance, chloroquine, Pakistan

## **ABSTRACT – 64**

### **“ROLE OF HEALTHCARE PROVIDERS IN DELIVERING BREASTFEEDING INFORMATION TO MOTHERS.”**

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Institute of Business Management<sup>1</sup>, Karachi, Hamdard University<sup>2</sup>, Karachi,

#### **Objective:**

To know the no. of mothers given breastfeeding information by healthcare provider during antenatal visit to a tertiary care hospital in Karachi in the year 2008

#### **Methods:**

A cross sectional survey was conducted among 50 doctors working in the Gynaecology departments of a tertiary care hospital of Karachi. Each doctor completed a questionnaire comprising of questions regarding their delivery of breastfeeding information to mothers who visit during the antenatal period. Observation of patient coming for antenatal checkup was also done.

#### **Results:**

44% of doctors educated their patients during the 3rd trimester, mostly in individual setting, 56% of these had no prior information regarding breastfeeding. 92% of the doctors have a routine practice of delivering breastfeeding information to patients.

#### **Conclusion:**

This study has shown the need to improve doctors knowledge in breastfeeding management, practices, and confidence when educating breastfeeding mothers. A structured breastfeeding curriculum during the residency is recommended

#### **Key words:**

Healthcare provider, breastfeeding, antenatal visit

## **ABSTRACT – 65**

### **“CYTO-HISTOLOGICAL CORRELATION OF FRESH VOIDED URINE CYTOLOGY AND CYSTOSCOPIC BLADDER BIOPSY IN THE DIAGNOSIS OF UROTHELIAL CARCINOMA.”**

Muhammad Imran, Noshin Yusuf  
Allama Iqbal Medical College Lahore

#### **Introduction:**

Urothelial carcinoma comprises 90% of the tumors of the urinary bladder with male to female ratio of 3:1. It has a strong etiological association with smoking and industrial pollutants. Its diagnosis at an early stage is highly important for proper management of these patients. A prospective study was carried out at the department of Pathology, Allama Iqbal Medical College, Lahore on 50 cases of bladder tumors in order to evaluate the diagnostic efficacy of urinary exfoliative cytology in diagnosing urothelial carcinoma. Histological evaluation of the biopsy was used as the gold standard for verifying the cytological diagnosis.

#### **Objectives:**

To find out the sensitivity, specificity, positive predictive value and negative predictive value of fresh voided urinary exfoliative cytology for diagnosing urothelial tumors.

#### **Materials and Methods:**

A total of 50 cases admitted in the Urology department of Jinnah Hospital Lahore were included in the study.

#### **Inclusion Criteria:**

1. Age above 50 years.
2. Patients with history of painless haematuria.
3. X ray or ultrasound findings negative for stones
4. A high clinical suspicion of bladder cancer.

#### **Exclusion Criteria:**

1. Recent history of bladder biopsy.
2. Recently operated for bladder tumors.

Fresh voided urine was collected for exfoliative cytology. All the samples were subjected to cytologic examination. The voided urine samples were centrifuged and smears were prepared from the centrifuged deposits. Hematoxylin and Eosin staining was performed and were examined morphologically for the presence of atypia / cytologically malignant cells. Cystoscopic biopsy was obtained from the suspicious area or from the . This acted as gold standard for the verification of the cytologic findings. Sensitivity and specificity of the fresh voided urine cytology was evaluated in comparison to the biopsy findings.

#### **Results:**

Out of the 50 patients 43 were male and 7 were females. Age ranged between 50 – 80 years. The range of pathologic diagnosis of voided urine examination were acute cystitis (N= 6), transitional cell carcinoma (N=32), poorly differentiated carcinoma (N=3), atypical cells suspicious for TCC (N= 8) and normal findings (N=2). The sensitivity of voided urine exfoliative cytology was 96%, specificity was 71%, positive predictive value was 94% and the negative predictive value was 83%. In all the cases results of the biopsy diagnosis was taken as gold standard.

#### **Conclusion:**

On the basis of the results of present study we conclude that cytological examination of fresh voided urine is a non invasive, simple and inexpensive method for diagnosing bladder cancer with a high sensitivity and specificity.

## ABSTRACT – 66

“FREQUENCY OF BCR-ABL FUSION ONCOGENE IN ADULT AND PEDIATRIC ACUTE LYMPHOBLASTIC LEUKEMIA (ALL) IN PAKISTAN: IMPLICATION IN DIFFERENTIAL DIAGNOSIS, PROGNOSIS AND TREATMENT IN IMATINIB/POST-IMATINIB ERA.”

Iqbal Z<sup>1,2,14</sup>, Tanveer A<sup>1</sup>, Iqbal M<sup>1,3</sup>, Ferhan M<sup>4,5</sup>, Baig SM<sup>5</sup>, Naqvi MI<sup>1,6</sup>, Naeem M<sup>5</sup>, Aziz Z<sup>7</sup>, Tahir AH<sup>8</sup>, Gill TJ<sup>8</sup>, Shah IH<sup>9</sup>, Khalid M<sup>9</sup>, Taj AS<sup>10</sup>, Jameel A<sup>11</sup>, Abd-ul-Qayyum<sup>12</sup>, Ur-Rehman N<sup>13</sup>, Qin WX<sup>2,14</sup>, Chen SJ<sup>2,14</sup>, Khalid AM<sup>3,15</sup>

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### Background and Objectives:

ALL is a heterogeneous genetic disease involving a large number of genetic abnormalities associated with prognostic stratification and treatment decision-making. BCR-ABL fusion oncogene, resulted due to t(22;9), is associated with poor prognosis. However, tyrosine kinase inhibitors (TKIs) like Imatinib (Gleevec), Dasatinib and Nilotinib, which directly target bcr-abl onco-protein in BCR-ABL+ Leukemia, are more effective than conventional chemotherapy. Therefore, in TKI-era, frequency of BCR-ABL+ ALL in among Leukemia patients has a significant implication in diagnosis and treatment of this fatal disease. Therefore objective of this study was to determine the frequency of BCR-ABL in adult and pediatric ALL patients and to compare it with Western population.

### Methods:

Using a very sensitive nested RT-PCR, BCR-ABL was tested in 135 adult and 103 pediatric ALL patients, respectively. Results were confirmed by an alternative RT-PCR as well as interphase-FISH.

### Results:

BCR-ABL was detected in 50.4% (68/135) adult and 49.5% (51/103) pediatric ALL, respectively (Table1). Alternative RT-PCR and interphase-FISH showed 100% concordance.

### Conclusions and Recommendations:

Frequency of BCR-ABL in Pakistani pediatric ALL (49.5%) is much higher than rest of the world, specifically Europe (5-6%) (Table1). Frequencies of fusion genes associated with Leukemia are recently reported to be different in various ethnic groups around the globe. It shows ethnic and geographical variations in biology of Leukemia which may have a lot of implications in differential diagnosis/prognosis and treatment. In TKI-era, specifically due to very high frequency of BCR-ABL in pediatric ALL, we highly recommend BCR-ABL testing of ALL patients and to plan the treatment accordingly.

### Key words:

ALL, BCR-ABL positive Leukemia, Leukemia genetics

<b>Leukaemia sub-type</b>	<b>Fusion gene / Chromosomal abnormality</b>	<b>Mean Age (range)</b>	<b>No. (%) in Pakistan</b>	<b>*No. (%) In Europe</b>	<b>Statistical Analysis (p=0.01)</b>
Adult ALL (n=135)	BCR-ABL / t(9;22) (q34;q11)	20.5 (15-53)	68 (50.4%)	20-50%	No SD**
Pediatric ALL (n=103)	BCR-ABL / t(9;22) (q34;q11)	9 (0.6-13)	51 (49.5%)	5-6%	SD

Table 1: Frequency of BCR-ABL fusion oncogene in Pakistani adult and pediatric ALL and its comparison with Western populations

\*Data taken from van-Dongen et al, 1999

\*\*SD stands for significant difference between frequencies.

## ABSTRACT – 66a

“FREQUENCY OF BCR-ABL SPLICE VARIANTS IN CHRONIC MYELOID LEUKEMIA (CML) AND THEIR RESPONSE TO IMATINIB (GLEEVEC) TREATMENT.”

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<sup>1</sup>University of the Punjab, Lahore, Pakistan; <sup>2</sup>Shaukat Khanum Memorial Cancer Hospital & Research Centre, Lahore, <sup>3</sup>Kyrgyz State Medical Academy (KSMA), Bishkek, Kyrgyzstan; <sup>4</sup>Department of Bio-statistics and Bio-computation, NK-FACT, Lahore, <sup>5</sup>Jinnah Hospital, Lahore, <sup>6</sup>Allama Iqbal Medical College, Lahore, <sup>7</sup>Gov't College University Faisalabad

### Background and Objectives:

BCR-ABL fusion oncogene, resulted due to t(22;9), is a hallmark of CML and is detected in about 99% of the patients. It has two common splice-variants namely b2a2 and b3a2. Onco-protein bcr-abl leads to enhanced tyrosine kinase activity which triggers leukemogenic pathways, resulting in onset of CML. Imatinib (Gleevec), which is currently first-line treatment for CML with very high rates of response, directly binds bcr-abl protein and inhibits its tyrosine kinase activity. A number of reports recently published showed that splice variants of BCR-ABL differ in degree of pathogenesis and response to Imatinib, which can have clinical implications. Therefore, objectives of this study are to study the frequency of BCR-ABL splice variants in Chronic Myeloid Leukemia (CML) and their response to Imatinib (Gleevec) treatment.

### Methods:

A very sensitive nested RT-PCR was established to detect BCR-ABL splice variants in CML. Sensitivity of RT-PCR assay was 10<sup>-6</sup>. Thirty CML patients were subjected to BCR-ABL analysis. Studies are ongoing to find the correlation of type of BCR-ABL variants with outcome of Imatinib treatment.

### Results:

Out of 30 Pakistani patients, 23 (77%) patients were b3a2 positive while 7 (23%) were b2a2 positive as compared to 40% and 55% frequencies of b3a2 and b2a2 BCR-ABL splice variants, respectively, from Western populations. Studies are ongoing to analyze more CML patients for BCR-ABL and to find the correlation of type of BCR-ABL variants with outcome of Imatinib treatment.

### Conclusions:

Frequencies of BCR-ABL splice variants significantly differ between Pakistani and western populations. Thus, Pakistani CML patients may differ from Western patients in response to Imatinib treatment. Further studies are being carried out to confirm these reports from West and to find possible implications of BCR-ABL splice variant testing in Imatinib treatment.



## **ABSTRACT – 67**

“SERUM HOMOCYSTEINE LEVELS IN ACUTE MYOCARDIAL INFARCTION: A TRUE CARDIOVASCULAR RISK FACTOR OR AN ACUTE PHASE REACTANT PROTEIN: A CASE CONTROL STUDY.”

Muhammad Naeem Afzal, Tariq Waseem  
King Edward Medical University/ Mayo Hospital, Lahore.

### **Introduction:**

Homocysteine has been considered an independent risk factor for coronary artery disease. Different data have conflicting evidence on its causative role. It also shows some degree of variation during the acute phase of vascular event. Relatively few data are available in Pakistan to show its association with coronary artery disease whereas no local data describe its acute phase reactant variation.

**OBJECTIVES:** This study was designed to find out the frequency of hyper-homocysteinemia in patients of acute MI and in controls in our population; to show any association of hyperhomocysteinemia with coronary artery disease; and to study the variation in homocysteine levels over 7 days in patients of acute MI after the event.

### **Study Design:**

Case control study

**Setting:** Mayo Hospital, Lahore.

**Durations and Dates:** Six months. 1st January 2005 to 30th June 2005.

### **Methods:**

After informed consent, thirty patients of first acute transmural MI were included in the study. Thirty age and sex matched asymptomatic relatives were selected as controls in which siblings were preferred. Conventional risk factors were noted in history and clinical examination and recorded in a proforma. Blood samples for fasting homocysteine levels of patients were collected on two occasions i.e. on day 1 and day 7 of their admission. Fasting blood samples for homocysteine from control subjects were collected once. All samples were kept in refrigerator at  $-200C$  and analyzed at the end of study.

### **Results:**

There was 14.8% rise in homocysteine levels in patients of acute MI on 7th days of the acute event as compared to day 1 (Mean  $\pm$  SD day 1:  $12.99 \pm 3.51$ , day 7:  $14.92 \pm 4.54$   $\mu\text{mol/liter}$ ) and this variation was statistically significant ( $p < 0.05$ ). Comparison of patients' homocysteine values with those of controls (Mean  $\pm$  SD  $13.47 \pm 4.44$   $\mu\text{mol/liter}$ ) was statistically insignificant both at day 1 ( $p > 0.05$ ) and day 7 ( $p > 0.05$ ). Frequency of hyperhomocysteinemia was higher in patients on day 7 (43.3%) than in controls (33.3%) but lower on day 1 (16.7%). Smoking was strongly associated with elevated homocysteine levels in controls ( $p < 0.05$ ).

### **Conclusions:**

There was a statistically significant rise in homocysteine levels on day 7 in patients with acute MI as compared to their levels on admission. No significant association of homocysteine with coronary artery disease was found in this study. Smoking appeared to be strongly associated with elevated homocysteine in asymptomatic persons.

### **Keywords:**

Homocysteine, coronary artery disease, acute phase reactant, acute myocardial infarction.

## ABSTRACT – 68

“BIOCHEMICAL AND MOLECULAR STUDIES OF TYPE 2 DIABETIC PATIENTS.”

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Medical College<sup>2</sup>, Faisalabad.

### Objectives/Aims:

Our long term aim is to identify metabolomic, proteomic, genomic and adipokine basis of type 2 diabetes in Pakistani patients. However, in this pilot study, we aimed to identify differences in some anthropometric and biochemical parameters of type 2 diabetics which predispose them to diabetes as compared to control subjects.

### Method:

For this case-control study, we have collected blood samples from control (n=57) subjects and type 2 diabetics (n=43). Subjects were interviewed and BMI and WHR measurements were taken. Blood was drawn for the clinical analysis of serum metabolites, liver enzymes, serum proteins and genomic DNA extraction. Clinical chemistry was done on Microlab 300 and mean values of metabolites from both the groups were compared statistically. Moreover, SDS-PAGE based serum protein profiling, genomic DNA extraction and PCR-RFLP based mutation detection for PPARG and KCNJ11 gene, and adiponectin studies are also underway.

### Results:

The average age of control and diabetics was 46.7±9.0 and 55.3±11.0 years respectively. For most of the other parameters, there was an overall increase in the BMI, WHR, glucose, triglycerides, AST, ALT, ALP, total protein and total bilirubin values in diabetics as compared to controls. However, out of these only WHR (0.9±0.1 vs 1.0±0.1, p < 0.0001), glucose (88.2±11.7 vs 202.1±78.6 mg/dl, p < 0.0001), triglycerides (131.5±76.5 vs 191.3±124.1 mg/dl, p = 0.007) and ALT (28.4±15.3 vs 38.9±31.0 U/L, p = 0.046) were significantly higher in diabetics. On the other hand cholesterol, albumin and hemoglobin were reduced in diabetics but these were not significant reduction.

### Conclusion:

In this study we have found significant differences in some of the biochemical parameters in diabetics especially raised values for WHR, triglycerides and ALT in diabetics. We are now progressing to identify differences in the serum protein profiles, adiponectin levels and mutations in the diabetes causing genes in addition to collecting a large number of control and diabetic samples.

## **ABSTRACT – 69**

### **“DETERMINANTS OF CHILDHOOD AND ADOLESCENT OVERWEIGHT AND OBESITY IN SCHOOL GOING CHILDREN IN KARACHI.”**

Azra Rizwan; Juanita Hatcher, Jaweed Akhter, Tazeen Jafar  
Aga Khan University Hospital, Karachi

#### **Objectives/Aims:**

To determine the risk factors for overweight and obesity in school children, with emphasis on canteen food consumption and the provision of organized structured physical activity at the school.

#### **Method:**

In 2007, we surveyed four private and two public schools. Data on the childrens' sociodemographic variables, dietary habits and physical activity patterns at the school, home and elsewhere were recorded, as well as their physical measurements (weight, height, waist circumference).

#### **Results:**

Of the 434 participants, 14.1% were overweight or obese: 13.8% boys and 14.4% girls ( $p=0.84$ ). Children bringing lunch and soft drinks from the canteen had significantly greater odds of overweight or obesity ([OR] 1.84, 95% [CI] 1.21, 3.45). Snacking while watching television and fast food visits more frequently than twice a week raised the odds of overweight or obesity by more than threefold ([OR] 3.32, 95% [CI] 3.23,4.79) and ([OR] 3.14, 95%[CI] 2.42,11.25], respectively. The duration of activity of < 35 minutes versus > 35 minutes per physical education [PE] class placed the child at greater odds of overweight or obesity ([OR] 2.84, 95% [CI] 1.27, 3.01).

#### **Conclusion:**

The school is well spotted to restrain the epidemic of obesity in children. Efforts are required to educate children and their families about potentially modifiable high-risk behaviors, such as canteen food, eating during television watching, and engaging in physical activity at home and school, associated with overweight and obesity.

## **ABSTRACT – 69a**

### **“DETERMINANTS OF CHILDHOOD OVERWEIGHT OR OBESITY IN SCHOOL GOING CHILDREN IN KARACHI: A CHILD AND PARENT PERSPECTIVE”**

Azra Rizwan; Juanita Hatcher, Jaweed Akhter, Tazeen Jafar  
Aga Khan University Hospital, Karachi.

#### **Objectives/Aims:**

To determine the risk factors for overweight and obesity in school children, with emphasis on canteen food consumption and the provision of organized structured physical activity at the school, from both child and parent perspective.

#### **Method:**

In 2007, we surveyed four private and two public schools. Data on the childrens' sociodemographic variables, dietary habits and physical activity patterns at the school, home and elsewhere were recorded, through a separate interview of both parent and child.

#### **Results:**

Of the 434 children, data was obtained for 256 parents. Through parent interview, bringing lunch from the canteen: (OR [1.72] CI 1.14, 4.83); greater frequency of television snacking: (OR [3.95], 95% CI 3.42, 5.26) and a greater frequency of fast food visits: (OR [2.83], 95%CI 1.65, 12.14) were associated with greater odds of overweight or obesity. Of the children, 60% stated having fruit or vegetable on a daily basis, whereas only 39% parents of these children verified this ( $p < 0.05$ ). A greater proportion of children participated in more sedentary activity than what the parents were aware of ( $p < 0.05$ ). A greater proportion of parents stated a greater frequency of fast food visits and television snacking by their child, as compared to what the child had stated ( $p < 0.05$ ).

#### **Conclusion:**

To combat childhood obesity, modification of parental behavior and the school environment is required. Education to the family on home food provision, as opposed to canteen food, may provide a healthier alternative to the child, as well as re emphasis on more fruit and vegetable consumption by the child.

## **ABSTRACT – 69b**

**“PERCEPTIONS OF CONTRIBUTORS TO CHILDHOOD OVERWEIGHT OR OBESITY: A PARENT AND CHILD VIEWPOINT THROUGH FOCUS GROUP DISCUSSIONS.”**

Azra Rizwan; Ammad Fahim; Juanita Hatcher, Jaweed Akhter, Tazeen Jafar  
Aga Khan University Hospital, Karachi

### **Objectives/Aims:**

To hold focus group discussions (FGDs) with both parents and children, with intent of gaining a richer insight into the perceptions of determinants of obesity.

### **Method:**

Three groups of parents were purposively selected, each consisting of 6 individuals, from two private schools and a public school, respectively. The children of these parents were also grouped for a discussion held separate from the parents. The points of the discussion were transcribed onto Microsoft Word and divided into segments according to the emerging themes into analytic units. These meaningful segments were coded with descriptive words.

### **Results:**

Most participants voiced views equating an overweight child to a “healthy one” and a symbol of “good motherhood”; western junk food as a “status symbol” and provision of insufficient supervised physical activity at the school. Concerns were raised that activities for girls needed to be maximized at the school who, due to cultural norms, may be inhibited from participating in outdoor activity. The childrens’ multitasking between television and internet, this being more “convenient” than any form of additional physical exertion, has resulted in them becoming “couch potatoes”.

### **Conclusion:**

Themes from the FGDs revealed that the entire infrastructure of the community needs to be altered to counter the rising trend of obesity. Schools and parents are well spotted to bring about a positive change in this respect. This confirmed results obtained from the questionnaire based studies done on the subject.

## ABSTRACT – 70

“CHARACTERISTICS AND METABOLIC PROFILE OF PATIENTS WITH TYPE 2 DIABETES MELLITUS AT A TERTIARY CARE CENTER IN PAKISTAN.”

Azra Rizwan; Qulsoom Hasnain; Qamar Masood; Najmul Islam; Abdul Jabbar; Lubna Zuberi; Jaweed Akhter  
Aga Khan University Hospital, Karachi

### Objectives/Aims:

To assess the proportion of individuals reaching the recommended American Diabetes Association [ADA] goals for glycemic, lipid and blood pressure control.

### Method:

Data on patients presenting to the diabetes clinic, Aga Khan University and Hospital, between 2007 and 2008 were recorded. These included sociodemographic variables, physical measurements and presence of micro and macrovascular complications. Levels of HbA1C, blood sugars, lipid profile, urine microalbumin [UMA] and medications were recorded.

### Results:

1814 diabetic patients were reviewed, mean age ( $\pm$ SD) was 53 ( $\pm$ 13) yrs; mean duration of diabetes was 8 ( $\pm$ 7) yrs. There were 52.1% males & 47.9% females; 12.5% were overweight, while 72.2% were obese: 76.4% females versus 68.4% males ( $p < 0.05$ ). SBP  $< 130$  mmHg was achieved in 57.7%; DBP  $< 80$  mmHg in 43.2%; HbA1C of  $\leq 7.0\%$  in 44.8%; LDL  $< 100$  mg/dl in 55%; 48.6% had a triglyceride level exceeding 150 mg/dl: 54.2% females versus 44.4% males ( $p = 0.018$ ). 35.8% males had HDL  $> 40$  mg/dl; 20.5% females had HDL  $> 50$  mg/dl; 63.4% had normal urinary micro albumin levels. Microvascular complications were documented in 18.0% ; 38.0% had history of hypertension; 45.5% dyslipidemia; 9.7% heart disease; 1% diabetic foot. Statins were used by 39.2% patients; 24.3% were on insulin; 44% on sulphonylureas, 57.1% on metformin, 20.7% on glitazones, 2.6% on acarbose; 19.9% on ACE inhibitors, while 12.0% were on ARBs; 51.3% were on anti platelet agents.

### Conclusion:

The majority of diabetics were overweight/obese, with worse lipid profiles as compared to the non obese. Females had worse profiles as compared to males. The glycemic and lipid control were not at the ADA targets. Efforts are required to institute rigorous lifestyle measures and pharmacotherapy to clinch these targets.

## **ABSTRACT – 70a**

“OUTCOME OF PITUITARY SURGERY IN PATIENTS PRESENTING WITH PITUITARY ADENOMA AT A TERTIARY CARE CENTRE IN PAKISTAN.”

Azra Rizwan, Osama Ishtiaq, Sadia Jameel, Jaweed Akhter, Shahzad Shamim, Ather Enam  
Aga Khan University Hospital, Karachi

### **Objectives/Aims:**

To describe the outcome of pituitary surgery in patients admitted for pituitary adenoma at the Aga Khan University, Karachi.

### **Method:**

Files of patients diagnosed with pituitary adenoma, followed by surgical resection as treatment at the Aga Khan University Hospital between 2002 and 2007, were retrieved. Reviewed were: patient biodata, tumour characteristics; hormonal implications; pituitary dysfunction pre and/or post surgery; perimetry findings; duration of hospital stay; post operative complications; presence of a residual tumour; status at discharge, replacement therapy given and radiotherapy referral.

### **Results:**

The average age at presentation was 43(±16) yrs; 63% of patients were male; 37% female; 88% of the masses were macroadenomas, 12% microadenomas; 60% of the tumours were non functioning tumours; 22% growth hormone secreting; 11% prolactinomas and 7% were cortisol secreting; 10% presented with apoplexy, all male. Postoperative hypopituitarism was documented in 15%. Of the 65 patients who had been subjected to perimetry pre surgery, 45% had impaired fields; 45% showed improved vision post surgery. Two patients had expired at discharge; 67% had no immediate post surgery complication. Diabetes insipidus was present in 19% of cases; 60% underwent complete resection of the tumour. The mean duration of hospital stay was 7 days. At discharge, 70% received steroids; 31% thyroxine and 9% desmopressin, with 33% requiring hormonal replacement beyond 3 months. Ten patients received radiotherapy post surgery.

### **Conclusion:**

Majority of patients were male presenting with large tumours and visual defects. A residual tumour was present on MRI in less than half the patients and a good number required long term hormonal support. The mortality rate at discharge was low.

## **ABSTRACT – 70b**

“MIDDLE AGED MALE WITH PULMONARY TUBERCULOSIS AND REFRACTORY HYPERCALCEMIA AT A TERTIARY CARE CENTRE IN SOUTH ASIA: A CASE REPORT.”

Azra Rizwan; Najmul Islam  
Aga Khan University Hospital, Karachi

### **Objectives/Aims:**

To describe a case of refractory hypercalcemia associated with tuberculosis.

### **Method:**

55-year male, smoker, presented with weight loss, lethargy, drowsiness and low grade fever without cough. Examination revealed crackles in the chest but no focal neurological deficit. Chest X ray revealed an infiltrate consistent with tuberculosis. Biopsy of infiltrate was negative for malignancy. Corrected calcium level revealed parathyroid independent hypercalcemia. Further diagnostic work up for drowsiness and hypercalcemia, including an electrolyte panel, thyroid function tests, serum protein electrophoresis, angiotensin converting enzyme levels and a morning cortisol were normal. MRI brain was negative for tuberculomas. Routine and AFB cultures for CSF were negative. The patient was hydrated aggressively followed by diuresis. Intravenous pamidronate was administered twice over a period of two months as well as daily calcitonin injections. Nephrology consultation revealed that dialysis was not feasible because of non availability of a calcium free dialysate. Subsequently, steroids were started.

### **Results:**

Despite receiving hydration and conventional pharmacotherapy for his hypercalcemia, his condition failed to improve. When steroids were started the patient's calcium levels and symptomatology resolved.

### **Conclusion:**

Knowledge of the association between tuberculosis and hypercalcemia, plus its mechanism of action is important, in order to correct the symptomatology resulting from elevated calcium levels. Steroid therapy needs to be instituted early in cases of hypercalcemia complicating tuberculosis.



## ABSTRACT – 71

“EVALUATION OF LABORATORY AND FIELD EFFICACY OF BACILLUS THURINGIENSIS AND BACILLUS SPHAERICUS AGAINST AEADES ALBOPICTUS LARVAE IN WATER STORAGE CONTAINERS.”

Wajeeha Hameed, Jahan N  
Government College University, Lahore

### Objectives/Aims:

- To evaluate the minimum effective dosage of each formulation for larvicidal activity
- To determine the bioefficacy and residual activity against Aedes mosquitoes in laboratory and field.

### Method, Results and Conclusion

Dengue is a growing public health problem in many tropical and sub-tropical countries worldwide including Pakistan. At present the only method of controlling or preventing the disease is to eliminate its vectors, *Aedes aegypti* and *Aedes albopictus*. In current study *Bacillus thuringiensis* var. *israelensis* (Bti) Technical powder (TP), WDG (water dispersible granules) and *Bacillus sphaericus* (Bsph) were evaluated for the potential control of dengue vector, wild caught laboratory reared *Aedes albopictus* (early 4th instars) larvae along with pupae / adult emergence inhibition in laboratory and field conditions. Laboratory bioassays were carried out with different concentrations ranging from 100-0.0001 ppm. Lethal concentrations LC50 –LC95 indicated that early 4th instars larvae were most susceptible against Bti WDG and least susceptible against Bsph in laboratory. Therefore Bsph was not recommended to use in the field for *Aedes albopictus* control. Pupae / adult emergence was completely inhibited against 1 ppm Bti TP and WDG in laboratory. In outdoor conditions bioefficacy and residual activity of Bti TP and WDG was evaluated with various concentrations in two types of water storage containers i.e. plastic containers and used tires. These containers constitute vast developmental sites for *Aedes* mosquitoes in urban/semi urban areas. Maximum residual activity of Bti TP was 35 days against 2.4 ppm in plastic containers and minimum 14 days against 0.3 ppm in used tires as compared to Bti WDG observed in plastic containers for 35 days against 0.26 ppm and minimum residual effect of 14 days with 0.5 ppm in used tires .In general Bti WDG has 10-12X more residual effect as compared to Bti TP in both types of containers. In comparison of two types of containers, residual activity of Bti TP and WDG was low in used tires as compare to plastic containers. However, there was no significant difference ( $P>0.05$ ) between two types of containers.

## ABSTRACT – 72

“MALARIA PREVALENCE AND ABUNDANCE OF MOSQUITO VECTORS IN DEPALPUR, DISTRICT OKARA, PUNJAB PAKISTA.”

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Government College University, Lahore

### Objectives/Aims:

- To determine the prevalence of malaria by Passive Case Detection (PCD)
- To find out the abundance of mosquito vectors in selected villages of Tehsil Depalpur.

### Method:

Four villages (Bahripur, Amlimoti, BaleSingh and Godara) from Depalpur city were selected for the study of prevalence of malaria and mosquito vectors. In this area malaria is endemic with seasonal fluctuations and moderate prevalence. In 2002, an outbreak of falciparum malaria with many deaths occurred in Tehsil Depalpur but no confirmed record to date is found. Blood samples (116 from June 07 to August 07) were collected by PCD from four private clinics and a common Basic Health Unit (BHU) related to these villages. Prevalence was determined across various variables such as village residence, season, age and gender. Two methods Slide Positivity Rate (SPR) and Enzyme Linked Immuno-Sorbent Assay (ELISA) were used to measure the prevalence. For SPR, microscopic examination of thin and thick blood smears was done by staining the parasite with 10 % Giemsa stain. ELISA was performed using “ADALTIS” ELISA kit.

### Results:

Prevalence of malaria was 26% with respect to SPR and 22% using ELISA. In addition 18% cases were male positive and 8% were female positive. Children (43%) were more susceptible as compared to adults (22%). Prevalence was 22, 23 and 41% in June, July and August respectively. Among these, 98% cases were found suffering from malaria due to Plasmodium vivax and 2% due to P. falciparum. Entomological survey conducted from September 06 to April 07 indicated abundance of three different species of mosquitoes. The most common was Culex quinquefasciatus (74.9%) while among the malaria vectors Anopheles stephensi was more (13.6%) as compared to An. culicifacies (11.4%).

### Conclusion:

High prevalence of malaria was observed in selected villages of Depalpur, District Okara. In general P. vivax malaria was more common and prevalence of malaria was greater in August as compared to June and July. The role of An. stephensi in rural areas of Punjab, Pakistan needs to be determined.

## **Abstract – 73**

### **“BACTERIOLOGY OF CHRONIC SUPPURATIVE OTITIS MEDIA (CSOM) BY CONVENTIONAL STERILE SWAB & NICHROME WIRE LOOP.”**

#### **Introduction:**

Chronic Suppurative Otitis Media (CSOM) is an inflammation of the mucous membrane lining the middle ear cleft by pus producing aerobic gram positive, gram negative and anaerobes, characterized by discharge & conductive deafness & is still prevalent around the world. Specimen for bacterial culture can be obtained by using sterile swab & nichrome wire loop separately.

#### **Objectives:**

- (1) To study the prevalent bacterial pathogens & antimicrobial sensitivity pattern of the isolates.
- (2) To study the difference in isolation of bacterial pathogens using sterile swab & nichrome wire loop to obtain specimens.

#### **Design and Setting:**

Study of 100 Chronic Suppurative Otitis Media (CSOM) patients using conventional swab & nichrome wire loop at out patient ENT clinic & microbiology department of Shaikh Zayed Hospital Lahore.

#### **Subject and measures:**

Selection of 100 (CSOM) patients on the basis of history, clinical features, microscopic examination of tympanic membrane by ENT consultant and processing of the ear swab in the lab for bacterial culture & sensitivity using both methods.

#### **Results:**

The ear discharge sampled with nichrome wire loop (n=100) and conventional sterile swab (n=100) yielded 208 & 221 isolates respectively.

Staphylococcus aureus represented 36.5 % & 34.3 %, Pseudomonas aeruginosa 25.9 % & 24.4 %, Proteus species 12.5 % & 11.7 % of total isolates obtained respectively.

Antibacterial susceptibility to ciprofloxacin was observed in 92.9 % of total isolates followed by sparfloxacin 92.4 %, Septran was the least effective antimicrobial with sensitivity of only 20.1 %.

#### **Conclusion:**

Staph aureus, Pseudomonas aeruginosa & Proteus species continue to be major infecting pathogen and bacterial isolates from ear samples taken with conventional sterile swab (CSS) were found to be identical to those with nichrome wire loop.

#### **Recommendations:**

Conventional sterile swab is a simple, safe, cheaper and effective method of collecting middle ear specimen.

## **ABSTRACT – 74**

“THE SOUNDS OF SILENCE- TINNITUS CHARACTERISTICS IN PAKISTAN.”

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Shalamar Medical College Hospital, Lahore

### **Objectives**

To quantify various characteristics of tinnitus in the Pakistani population

### **Method**

Patients complaining of tinnitus with an intact ear drum and no active infection in the ear filled in a tinnitus questionnaire in the month of April, 2009. The frequency of occurrence of various patient related factors and specific tinnitus characteristics were compiled.

### **Results**

Of the 64 patients, 35 were males (54.7%) and 29(45.3%) females. The mean age at presentation was 48.0 years, ranging from 17 years to 85 years. Most of the patients were in their 40s (20.31%) followed by the ones in their twenties (18.75%) sixties (17.18%), seventies (15.62%), fifties (12.5%), thirties (9.37%) and the eighties (1.56%). Out of all, most (53.1%) had the tinnitus for one year and 54.7% described their tinnitus as moderately loud while 35.9% thought that the tinnitus was soft. Of all the patients, 51.6% considered the tinnitus to be of a moderate severity whereas 39.1% called it mild with only 3.1% having a severe variety. Tinnitus was variously described as a hissing noise (46%), a whistling noise (12.5%) and as a pure tone (11.1%). Mostly, the tinnitus remained the same (49.2%) during the last one year while it had increased in 30.2% and decreased in 6.3%. In 29.7%, tinnitus was bilateral but the majority of the patients (42.2%) heard it on the left side. However, a small minority heard it in the head (1.6%).

### **Conclusions**

Tinnitus presents through a wide range of ages in the Pakistani population with most patients presenting after one year with the majority having a moderately severe and loud tinnitus.

## **ABSTRACT – 75**

**“GASTROINTESTINAL ABNORMALITIES ARE MORE COMMON IN VITAMIN B12 DEFICIENT PATIENTS WITH MEGALOBLASTIC ANEMIA.”**

Iqbal S.P\*and Kakepoto G.N\*  
Aga Khan University, Karachi

### **Objective:**

Megaloblastic anemia is common in Pakistani population, despite folate and vitamin B12 constituting an important part of our diet. Other factors, like ineffective binding, impaired absorption or defective transport could be causing this deficiency. This study was carried out to investigate a relationship between various GI abnormalities with B12 or folate deficiencies.

### **Methods:**

For this retrospective cohort study, we indentified 220 records of patients (119 males and 101 females; age 1 year – 80 years) with complete blood counts and serum levels of folic acid and vitamin B12 who presented with macrocytic anemia at the Hematology Clinic of Aga Khan University Hospital.

### **Results:**

69% of the patients had severe anemia (Hb < 8 gm/dl). Values of hemoglobin, serum folate and serum B12 were not significantly different between males and females. Folate deficiency was 43.4%, while vitamin B12 deficiency was 78.5%. Gastrointestinal abnormalities (gastritis, malabsorption and infection) in B12 deficient patients were marginally significant (P=0.05) compared to B12 normal patients. This signifies that poor dietary intake along with poor gut absorption could be contributing to high prevalence of vitamin B12 deficiency in this population.

### **Conclusions:**

Vitamin B12 deficiency appears to be the major factor leading to megaloblastic anemia in our population. GI abnormalities interfere with absorption of vitamin B12. Poor dietary intake as well as poor absorption might be contributing to high prevalence of vitamin B12 deficiency.

## **ABSTRACT – 76**

“EVIDENCE – BASED EDUCATIONAL PLANNING, THE WAY FORWARD - A PRACTICAL EXAMPLE OF AN UNDERGRADUATE MEDICAL EDUCATION PROGRAMME.”

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Peshawar Medical College, Peshawar

### **Objectives/Aims:**

The purpose of this research was to use educational research tools for the evaluation of an educational intervention introduced in the form of an interactive closely supervised logbook system, for planning the clinical training of an Undergraduate Medical Education (MBBS) programme.

### **Method:**

An interactive logbook with an in-built close supervision, immediate feedback & continuous assessment system ( including 360 0 assessment of attitude) was introduced in the third year of a five year undergraduate MBBS programme for the hospital-based, community health & research postings in March 2008. The system was introduced with set objectives. At six months and 01 year the logbook was reviewed through a scientific research-based approach. A three dimensional strategy was used for the review inclusive of faculty feedback, objective analysis of logbook entries and students’ feedback. The methods used for data collection and analysis used both quantitative & qualitative methods. In view of the comprehensive evidence- based review of the logbook the clinical training was planed for the next session.

### **Results:**

Thematic analysis of the views obtained through series of meetings with the faculty presented the following major themes; a useful guiding tool, attitudinal development guide, enhance its user friendliness. Students’ views obtained through two focus group discussions and a survey of 60 students of the 4th year class showed that majority of students (92%) considered it to be a useful system of teaching & learning. They identified areas of strength and weaknesses of the system and gave suggestions. The logbook entries-based students’ data analyzed with Excel 2007 not only informed about the practicality, usage, skills & attitudinal development of students but was able to identify areas of difficulty as well.

### **Conclusion:**

Evidence – based educational planning and development in medical education being realistic, sustainable, effective, and acceptable & with broad-based ownership is the way forward for educational interventions.

## **ABSTRACT – 77**

“CARDIOVASCULAR RISK FACTORS IN OBESE INDIVIDUALS: A STUDY FROM URBAN PAKISTAN.”

Khan YA, Khan NI, Naz L, Yasmeen G  
University of Karachi

### **Background:**

With industrial and technological revolutions from past two centuries, mortality rates due to heart diseases are now increasing in developing countries of the world. Several risk factors have been identified for cardiovascular diseases such as hyperlipidemia, hypertension, diabetes mellitus, smoking, obesity, increasing age, post menopausal state and positive family history. Present study is designed to identify the clustering of specific cardiovascular risk factors in obese individuals living in urban Pakistan.

### **Methods:**

Age matched 115 individuals of either sex were selected as volunteer to participate in the study and were divided into four experimental groups. Patients medical and personal history was noted through a questionnaire. After 12 hrs of fast blood samples were collected and were estimated for plasma lipid profile, glucose and blood glutathione levels.

### **Results:**

Present study showed that prevalence of obesity is high in Pakistani female population as compared to males. Elevated systolic and diastolic BP were found in all the three groups of obese individuals in both male and females. Plasma lipid profile levels were also high in obese participants as compared to controls. And with blood glucose and glutathione concentrations also linked with the degree of obesity.

### **Conclusion:**

Hyperglycemia, hyperlipidemia and increased oxidative stress are the important risk factors of cardiovascular diseases and are associated with the degree of obesity.

## **ABSTRACT – 80**

### **“ASSESSMENT OF HEAVY METALS IN LOCAL COSMETIC PRODUCTS BY ATOMIC ABSORPTION SPECTROPHOTOMETER**

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College for Women University Lahore<sup>1</sup>, PCSIR Laboratories Lahore<sup>2</sup>

#### **Objectives/Aims:**

Many heavy metals are prohibited in cosmetic products. Yet impurities exist due to persistent nature of these substances in the natural environment. These metals and their compounds, in personal care products, cause skin allergy or even cancer. This has drawn our attention to assess the safety of various local cosmetics available in open markets of Lahore.

#### **Method:**

Thirty different facial cosmetics (moisturizing lotions, foundation creams, lipsticks) were charred in open air, burnt in Muffle furnace at  $550 \pm 20^\circ\text{C}$  till white ash. The ash was dissolved in 5ml 6N HCl and volume was made up to 50 ml distilled water. These solutions were analyzed for their metal contents ( $\text{Pb}^{2+}$ ,  $\text{Cd}^{2+}$ ,  $\text{Cr}^{3+}$ ,  $\text{Sb}^{3+}$ ,  $\text{Zn}^{2+}$ ,  $\text{Cu}^{2+}$ ,  $\text{Ni}^{2+}$ ) by Atomic Absorption Spectrophotometer (AAS).

#### **Results:**

Zinc, copper and nickel were found in almost all samples of kajal, foundation, lipsticks and moisturizing lotion, highest being in kajal. Toxic heavy metals like Lead, Cadmium were present in noticeable amount in kajal and brown lipstick. Low quantities of antimony were also detected in various samples. Chromium was present only in brown lipstick and kajal.

#### **Conclusion:**

Kajal contains lead, copper, zinc and antimony above the tolerable daily intake (TDI) set by WHO. According to the results moisturizing lotions, foundation creams, lipsticks are safe to use as their metal contents are extremely low and in some instances below the detection limits of AAS. However the continuous use of these cosmetics may enhance the absorption of metals, especially Cd and Pb.



## **ABSTRACT – 81**

### **“IMPACT OF DIURETIC AND DIGOXIN ON SERUM MAGNESIUM LEVEL IN HEART FAILURE PATIENTS**

Surraiya Shaikh<sup>1</sup>, Dr. Altaf Ahmed Shaikh<sup>2</sup>, Prof. Khemomal A. Karira<sup>3</sup>, Prof. Hasina Tawerani<sup>4</sup>  
Dow University of Health Sciences<sup>1</sup>, Karachi, PNS Shifa<sup>2</sup>, Karachi, Basic Medical Sciences Institute<sup>3</sup>, Karachi,  
National Institute of Cardiovascular Diseases<sup>4</sup>, Karachi

#### **Objectives/Aims:**

To evaluate the serum magnesium level in heart failure patients receiving diuretic and digoxin as a therapy.

#### **Methods:**

This case-control study was carried out in the Department of Biochemistry at Basic Medical Sciences Institute (BMSI), Jinnah Postgraduate Medical Centre (JPMC), Karachi with the collaboration of National Institute of Cardiovascular Diseases (NICVD), Karachi from April 2003 to December 2003. Serum magnesium levels were evaluated in 65 subjects. Forty five were diagnosed cases of chronic heart failure. All patients were receiving diuretic and digoxin as a therapy. Twenty subjects were healthy age and sex matched controls. Total subjects were divided into three groups. Other electrolytes, Sodium, Potassium, Calcium and Chloride were also evaluated.

#### **Results:**

All results were compared and expressed mean values ( $\pm$ sem). The mean values of serum magnesium ( $1.7\pm 0.07$ ) were observed significantly lower ( $P<0.01$ ) in patients receiving diuretics and even more lower ( $P<0.001$ ) significantly in patients who were receiving both diuretic and digoxin. Other electrolytes Potassium, Calcium and Chloride were also observed significantly tower.

#### **Conclusion:**

It is concluded that patients with heart failure receiving diuretics and digoxin have significantly low level of serum magnesium along with other electrolytes.

## **ABSTRACT – 83**

### **“IN-VITRO ANTIBACTERIAL ACTIVITY OF AQUEOUS GARLIC (ALLIUM SATIVUM) EXTRACT AGAINST MDR AND NON- MDR SALMONELLA TYPHI.”**

Abdul Hannan, Kanwal Rauf, Muhammad Ikram Ullah, Mehwish Saba, Mahwish Raja, Muhammad Usman Qamar.

University of Health Sciences

#### **Objectives/Aims:**

Typhoid fever is endemic disease in developing countries. Salmonella typhi that is resistant to three first-line anti-typhoid agents [ampicillin, chloramphenicol and trimethoprim–sulphamethoxazole] is designated as multi-drug resistant (MDR) S. typhi. MDR strains of S.typhi are a serious health problem and new alternative/agent is ultimately needed to combat this problem. Garlic is being used in folk medicine and has antimicrobial properties against various bacteria, parasites, viruses and fungi.

The aim of this study was to evaluate the anti-bacterial activity of aqueous extract of garlic against clinical isolates of MDR and non-MDR S. typhi and to determine its minimal inhibitory concentration (MIC).

#### **Method:**

Aqueous garlic extract was prepared by Iwalokum BA method (Iwalokum BA et al. 2004). A total of 50 clinical isolates including MDR (n=30) and non-MDR (n=20) were studied. Antibacterial activity of AGE was evaluated against these strains and MIC was determined by agar dilution technique on Mueller Hinton (MH) agar. ATCC strains of S. aureus (25923) and S. typhimurium (14028) were used as controls.

#### **Results:**

All the strains (n=50) of S. typhi including MDR and non-MDR were inhibited at MIC ranging from 18 to 22 mg/ml of garlic extract concentration.

#### **Conclusion:**

This study demonstrated that aqueous garlic extract has anti-S.typhi activity against MDR and non-MDR strains of S. typhi. It is concluded that garlic might be used as a natural supplement with conventional anti-typhoid drugs after being evaluated in-vivo studies.

## **ABSTRACT – 86**

“DOES EARLY RELEASE OF TOURNIQUET REDUCES OVERALL BLOOD LOSS IN TOTAL KNEE REPLACEMENT.”

Kashif Abbas, Masood Umer  
The Aga Khan University Hospital Karachi

### Objectives/Aims:

Aim of the study is to compare effects of early tourniquet release in total knee replacement with delayed release at the end of procedure, on the basis of total blood loss, wound complication and length of hospital stay

### Method:

110 files are reviewed retrospectively who have undergone total knee replacement over a period of 2004 to 2007. Patients are divided into two groups. Group A consist of 45 patients with early deflation of tourniquet to secure hemostasis and group B comprises of 65 patients with the release of tourniquet after applying compressive dressing.

Total blood loss is calculated by formula described by Gross

### Results:

There were 17 male and 93 female with comparable BMI. 92 patients have evidence of some type of systemic disease. 104 patients have received preoperative anticoagulation, 9 patients were on aspirin before surgery, which was discontinued a week prior to surgery. All have undergone posterior stabilized cemented total knee replacement. 52 patients have undergone bilateral knee replacement simultaneously.

4 patients in group B showed complication related to wound with 3 being minor and 1 requiring additional OR visit. Mean length of hospital stay was 9 days. Requirement of transfusion was higher in group B, however total blood loss was found to be higher in group A.

### Conclusion:

Intraoperative tourniquet release and hemostasis does not reduce total blood loss in total knee replacement, however this group have relatively shorter hospital stay.

## **ABSTRACT – 87**

### **“SMALL SKELETAL MUSCLE AUTOGRAFTS IN RATS AS A MODEL FOR EVALUATING STRATEGIES TAEGETTING RECOVERY OF MUSCULAR INJURIES**

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University of the Punjab<sup>1</sup>, Lahore, University of Information Technology<sup>2</sup>, Islamabad

#### **Objectives/Aims:**

It has been well established that skeletal muscle has a remarkable ability to regenerate following various kinds of physicochemical injuries including free transplantation. In free transplantations a muscle tissue is placed in a bed within host without any neural or vascular anastomoses. However, fascia and skin are sutured routinely. This grafted tissue follows a characteristic and well studied course of degeneration and regeneration of original muscle fibres and myotubes, respectively. Various factor influencing the revascularization and reinnervation of the grafted tissue determine the level of success of the transplants. In rats small muscle autotransplants like Extensor Digitorum Longus (EDL) regenerate successfully within a period of one month. Histological analysis of the EDL muscle orthotransplants at various stages post-transplantation reflects the influence of different treatments administered.

#### **Method:**

EDL muscle was orthotopically transplanted in hypoinsulinaemic, hypothyroid, castrated and the hormones replaced and supplemented rats. Histological analysis of the muscle regenerate was performed at weekly intervals upto one month post grafting. Morphometric analysis of the regenerated muscle fibres was also conducted.

#### **Results:**

Skeletal muscle fibres regenerated poorly in the absence or lower than the normal values of the three hormones. While the myotubes regenerated and developed optimally in the hormone replaced animals. The regenerated muscle fibres in testosterone and insulin supplemented rats had even look better than the situation found in control animals. However, hypothyroidism was found to exert negative effect on the development of regenerating myotubes in the EDL muscles orthotransplants. Analysis of average cross-sectional areas of the regenerated muscle fibres in the different experimental groups indicated significant differences.

#### **Conclusion:**

The skeletal muscle fibres while regenerating following free autotransplantation respond to the presence/absence and different levels of the anabolic hormones insulin, thyroxin, triiodothyronine and testosterone. Provision and maintenance of proper amounts of these hormones following muscular injuries or transplantation surgeries can lead to rapid and successful recoveries in select clinical situations. It is hypothesized here that this model can serve excellently to identify proper synthetic/natural medicines and their dosages for obtaining optimally skeletal muscle recovery after accidents, involving physical as well as chemical insults. Likewise the technique can be employed for determining the ways and time frame required for deep wounds healing and recovering after cosmetic or clinical skeletal muscle transplantation surgeries.

## **ABSTRACT – 88**

### **SELF-REPORTED NEEDLE-STICK INJURIES AMONG DENTISTS IN LAHORE**

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Nishtar Institute of Dentistry<sup>1</sup>, Multan, Lahore Medical and Dental College<sup>2</sup>, Lahore.

#### **Objectives/Aims:**

Dental health care workers are at high risk of infection with blood-borne pathogens because of occupational exposure to blood and other body fluids resulting from Needle-Stick Injuries (NSI's). The aim of this study was to determine the frequency of needlestick injuries among dentists in Lahore and to create awareness of their associated risks.

#### **Method:**

This cross-sectional study was undertaken at various dental teaching institutions of Lahore. After taking informed consent, a self-reporting questionnaire was randomly distributed among dentists working at these institutions.

#### **Results:**

71.7% of the dentists contacted responded to questionnaire. Among the 43 respondents, 55.8 % were male and 44.2 % were female. Overall 36 (83.7%) had suffered at least one needle-stick injury during their whole professional career. 29(67.4%) were injured within the preceding 12 months. Of those who were injured, 72.4% did not report the injury.

#### **Conclusion:**

Dentists have a high risk for NSI and attention should be directed to preventive strategies with respect to potential blood-borne infections. The risk for occupationally acquired infections is an unavoidable part of daily patient care. Greater collaborative efforts by all concerned persons are needed to prevent needle stick injuries. Further studies are needed to enhance compliance with established infection control approaches.

## ABSTRACT – 90

“A COMPARISON OF EXTENDED-SPECTRUM B-LACTAMASE DETECTION METHODS AVAILABLE IN A ROUTINE LABORATORY IN PAKISTAN.”

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### Objectives:

Extended-spectrum  $\beta$ -lactamases (ESBL) cause resistance to most  $\beta$ -lactam drugs. Studies show 35-45% Enterobacteriaceae isolates in Pakistan to be ESBL producers. Failure to recognize these organisms, and treat appropriately, can lead to increased morbidity and mortality.

Our objective was to compare methods for the detection of these enzymes and assess how readily they could be used as a routine screening method.

### Method:

We tested 323 consecutive Enterobacteriaceae isolates over a 3 month period from July to September 2008 for ESBL detection, simultaneously using double-disc synergy and combined disc method.

Double-disc synergy involves placing a clavulanic acid disc 25-30mm from a cephalosporin disc and looking for widening of the zone of inhibition and/or window formation between the two. We used ceftriaxone (30 $\mu$ g), ceftazidime (30 $\mu$ g) and cefipime (30 $\mu$ g) discs with clavulanic acid (co-amoxiclav 20/10 $\mu$ g) (Oxoid, Hampshire, UK) placed in the center of the plate.

For the combination disc test, ceftazidime/clavulanic acid and cefotaxime/clavulanic acid were used and paired with ceftazidime (30 $\mu$ g/disc) and cefotaxime (30 $\mu$ g/disc) of the same company. (Becton Dickson, Sparks, Maryland 21152 USA).

An increase of  $\geq 5$ mm in the zone diameter of the combination disc compared to the single disc was considered a positive test.

### Results:

Of the 323 isolates tested double-disc synergy method demonstrated, at best, 85% ESBL producers in comparison to combined disc methods 99% detection.

### Conclusion:

Our study demonstrated the combined disc method to be more effective compared to double-disc synergy for extended-spectrum  $\beta$ -lactamase detection.

If cefipime is included as the tested cephalosporin in double-disc synergy, sensitivity of the method can be maximized. We found it easy to incorporate both tests into our laboratory methods.

