a periodic domain during 1980–2009 regarding scientific productions of Iran in parasitology domain.

**Results:** Of 72,229 articles written by Iranian authors during 1980–2009, a total of 392 articles (0.54%) were in the domain of parasitology. Some of these articles are due to collaborative works and some of them are non-collaborative ones. Iranian authors of parasitology have many collaborative articles with their counterparts in United Kingdom (UK). Moreover, “Mohebali” with 26 articles was the most productive scientists of parasitology, as well as Tehran University of Medical Science with 114 records (29.08%) was the most productive institution in the field of parasitology.

**Conclusion:** Our results indicated that the scientific productions trend including research and write down in the domain of parasitology have considerable been increased in 2008. As a whole, the Journal entitled “Parasitology Research” published the 65 citations of all parasitology articles corresponding Iranian researchers.

**PP-208 Vascular endothelial growth factor (VEGF) and lactate dehydrogenase (LDH) in the pleural effusions caused by different etiology**

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**Objective:** To explore the clinical validity of vascular endothelial growth factor (VEGF) in the pleural effusions caused by different etiology.

**Methods:** VEGF in the pleural effusions caused by different etiology were measured by ELISA. LDH measurements were performed on a selective, discrete, multichannel analyzer using standard methodology.

**Results:**
1. VEGF levels in the pleural effusions were 240.29±11.52, 217.72±49.51, 68.03±50.70 pg/ml in the patients with parapneumonic effusions (PPE), tuberculosis effusions (TBE) and transudative pleural effusions (TE), respectively. There were significant higher VEGF in the patients with PPE, TBE than TE (P<0.05). But, no significantly difference between the patients with PPE and TBE.
2. LDH levels in the sera were 156.75±35.26, 142.94±42.17, 128.57±81.38 U/L with PPE, TBE and TE, respectively. No significant difference among them (P=0.05).
3. LDH levels in the pleural effusions were 1135.25±747.85, 328.5±178.89, 126.29±60.16 U/L with PPE, TBE and TE, respectively, there were significant difference between PPE, TBE and TE (P<0.05), and significant difference between PPE and TBE (P<0.05). The ratio of LDH in the pleural effusion and serum significantly difference between PPE and TBE (P<0.05), but no difference in TE.

**Conclusion:** The detection of VEGF and LDH has diagnostic values in differentiating exudative and transudative pleural effusions, and PPE has more serious infection response than TBE.

**PP-209 In vitro efficacy of ceftriaxone and cefixime against respiratory pathogens**

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**Background:** Respiratory tract infections (RTIs) are very common in developing countries particularly in winter months. Major pathogens associated with these infections are *Streptococcus pneumoniae*, *Haemophilus influenzae* and *Moraxella catarrhalis*. As these infections are a major cause of morbidity and mortality proper knowledge of antimicrobial sensitivity pattern should be known to the physician so as to prescribe correct empirical therapy.

**Aims and Objectives:** The objective of this study was to find out the in vitro activity of ceftriaxone and cefixime against respiratory pathogens.

**Materials and Methods:** This descriptive cross sectional study was carried out at the Department of Microbiology, Army Medical College, National University of Sciences and Technology, Pakistan. All respiratory samples were dealt with standard microbiological techniques. Isolated organisms were subjected to antimicrobial testing by modified Kirby Bauer disc diffusion technique and were also subjected to the determination of minimum inhibitory concentrations (MIC) of ceftriaxone and cefixime. MIC50 and MIC90 were calculated.

**Results:** *Streptococcus pneumoniae* was most frequently isolated followed by *Haemophilus influenzae* and *Moraxella catarrhalis*. All the isolates were uniformly susceptible to both the antibiotics.

**Conclusion:** Ceftriaxone and cefixime both are highly effective against respiratory pathogens, however less cost effective against respiratory pathogens, however less cost effective against respiratory pathogens.

**PP-210 Comparison of minimum inhibitory concentrations of different fluoroquinolones against respiratory pathogens**

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**Background:** Significant levels of antibiotic resistance, particularly to those antibiotics used to treat respiratory tract infections (RTIs) have emerged worldwide. Fluoroquinolones are considered very effective against majority of respiratory pathogens. So the objective of this study was to evaluate the in vitro activities of fluoroquinolones against respiratory pathogens.

**Materials and Methods:** This descriptive cross sectional study was carried out at the Department of Microbiology, Army Medical College, National University of Sciences and Technology, Pakistan. All respiratory samples were dealt with standard microbiological techniques. Isolated organisms were subjected to antimicrobial testing by modified Kirby Bauer disc diffusion technique and were also subjected to the determination of minimum inhibitory concentrations (MIC) of ciprofloxacin, moxifloxacin and levofloxacin. MIC50 and MIC90 were calculated.

**Results:** *Streptococcus pneumoniae* was most frequently isolated followed by *Haemophilus influenzae* and *Klebsiella pneumoniae*. Majority of the isolates were susceptible to fluoroquinolones. Levofloxacin showed better efficacy against respiratory pathogens.

**Conclusion:** Levofloxacin showed highest in vitro activity among fluoroquinolones against respiratory pathogens. Physicians should have good knowledge of current antimicrobial susceptibility pattern so as to prescribe effective empirical therapy to patients thus reducing morbidity and mortality.

**PP-211 A role for the pneumococcal vaccine during admission for stroke? Observed protective effect against death in the Medicare population**

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**Background:** Pneumococcal infections after stroke have high incidence and mortality. In elderly patients, meta-analyses have shown a protective effect of the 23-valent
pneumococcal polysaccharide vaccine (PPV) against invasive pneumococcal disease while studies examining pneumonia case-fatality rates are inclusive. Accordingly, the Centers for Disease Control (CDC) recommends that PPV be given to adults 65 and older and those with chronic diseases. The study aimed to explore if PPV was associated with a reduction in 30 and 60-day mortality among stroke patients, a portion of which was likely related to Streptococcus pneumoniae infection.

Methods: Short-Stay records from the Medicare Provider Analysis and Review, 2007, were used to create a retrospective cohort. 382,959 unique in-patient admissions with a diagnosis of cerebrovascular disease International Classification of Disease Version (ICD-9 430–438.9) and without a diagnosis of pneumonia or lower respiratory track infections were identified for analysis. Vaccinated cases (n = 2023) were defined by the presence of ICD-9 codes V03.82 and 995.2. A multiple regression using a Cox proportional hazard model (adjusted for age, sex, race, influenza vaccination status, comorbidities, and a quality of care index) was used to assess mortality risk at 30 and 60 days after stroke admission.

Results: A 21% reduction in mortality (HR = 0.79) was observed in the vaccinated group at 30 (p < 0.001, 99% CI: 0.68–0.92) and a 19% reduction in mortality (HR = 0.81) at 60 days (p = 0.001, 99% CI: 0.70–0.94).

Conclusion: This study suggests that PPV might reduce pneumococcal-associated mortality among patients recently hospitalized for stroke.

**PP-212** Antitubercular agent mediated changes in rat type I collagen and spermatogenesis indices

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Background: Connective tissue disturbances accompany wide spectrum of accessory pathologies caused by tuberculosis. Necessity of tuberculous chemotherapy adverse effects minimisation requires a comprehensive evaluation of the effects of antitubercular drugs on reproductive system and extracellular matrix proteins.

Methods: Wistar albino male rats (body weight [bw] 160–200 g) were divided into three groups: I – received pyrazinamide per os at a dose of 1000 mg/kg bw/day, II – at a dose of 2000 mg/kg bw/day, in both groups it was given for 60 days; III – intact animals. The contents of amino acids in rat type I collagens were determined using an amino acid analyzer. Morphological analyses were carried out by an optical microscope.

Results: The study of the effects of pyrazinamide administered in different doses on type I collagen amino acid contents, testis cells morphologic and morphometric parameters and spermatogenesis demonstrated presence of pyrazinamide-mediated quantitative and qualitative changes in male rat reproductive organs, spermatogenic epithelial cells and extracellular matrix proteins in comparison with norm. The largest number of changes were established at a dose 2000 mg/kg bw/day.

Conclusion: With pyrazinamide administration could be formed collagen molecules with changed helix structure, surface charge, rigidity, number and types of cross-links and specific locuses responsible for cell adhesion, interaction with chaperons and procollagen processing to collagen. Observed collagen molecules changes could hence affect the properties and correct functioning of spermatogenic epithelium and other tissues of reproductive organs. They could be caused by pyrazinamide via cytochrome P450 2E1 induction, reactive oxygen species production or direct action of this compound on protein biosynthesis processes.

**PP-213** Splenic tuberculosis mimicking disseminated candidiasis in a leukaemic child

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Introduction: Tuberculosis is a very important public health problem in Sri Lanka. Tuberculosis with involvement of the spleen is uncommon. Immune deficiency has become an important risk factor for the development of splenic tuberculosis. Complications can be life-threatening. Untreated splenic abscesses have a high mortality rate.

Case description: A 5 year old child with Acute Myelocytic Leukaemia while on intensive chemotherapy developed fever (104°F) and multiple subcutaneous nodules on left hand in the neutropenic phase while on cefoperazone–sulbactam for Acinetobacter spp. bacteraemia. Neutropenic phase became prolonged with total WBC ranging from 200 to 750/mm³. Fungal blood culture grew Candida tropicalis. He developed anaphylaxis to the test dose of amphotericin B. Fluconazole intravenously was commenced after taking biopsies of the nodules for fungal, mycobacterial and bacterial cultures and histopathology. Cultures were negative and histopathology was inconclusive. He was given 2 weeks of voriconazole after giving 1 week of fluconazole with poor response of the subcutaneous nodules but he became afibrile. 2D echocardiography and eye review were normal. Child became febrile (102°F) again. Ultrasound and computerized tomography scans of the abdomen revealed multiple abscesses. Splenectomy was performed. It showed multiple abscesses with histological appearance of caseous tuberculosis. Biopsy and abscess pus were not sent for cultures. Antituberculous therapy was commenced. Bone marrow and cerebrospinal fluid for mycobacterial cultures and polymerase chain reaction for tuberculosis were normal. It was decided to continue therapy for one year. He has now completed 7 months therapy so far and has improved symptomatically.

In conclusion tuberculosis should be considered as one cause of splenic abscesses during prolonged neutropenia especially where the disease is endemic. Sending microbiological samples for diagnosis and sensitivity pattern of drugs to direct therapy needs to be encouraged considering failure of therapy due to resistant strains.

**PP-214** Identification of Mycobacterium tuberculosis Beijing genotype with three methods

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Background: Beijing strains constitute more than 1/4 of Mycobacterium tuberculosis (MTB) genotypes. Beijing genotype is considered an important genotype because of its reasonable characteristics such as: association with multi-drugs resistance TB. Accordingly these strains are reluctant to conventional TB drugs. Therefore, it is necessary to investigate the transmission rate among Beijing strains within the studied communities. In this study, three molecular methods (Spoligotyping, VNTR, and RFLP-IS6110) were used to identify transmission among patients infected with Beijing strains.

Materials and Methods: The susceptibility tests were performed on 238 M. tuberculosis culture positive specimens. Thereafter, the isolated Beijing genotype was subjected to VNTR and RFLP. The results of Spoligotyping