

and contact with sheep. Dogs play a critical role in transition the hydatidosis. The rate of infection with *E. granulosus* in stray dogs shows a prevalence of 5% to 49% in different parts of Iran. Followed by sheep with 88% fertilized cysts, camel with 70%, and cattle with 19% have been considered as the most important and the weakest intermediate host of *E. granulosus*, respectively. Molecular analyses clearly indicate that the camel/dog strain (G6 genotype) of *E. granulosus* as well as the cosmopolitan, common sheep strain (G1 genotype) occurs in Iran. A wide variety of livestock including sheep, cattle, goat, camel and buffalo also harbor the disease. *E. multilocularis* another agent of human hydatidosis (alveolar cyst) is reported here as well and from 1946 to 1993, 37 cases of human alveolar echinococcosis were reported from northwestern Iran.

Conclusion: Hydatidosis must be considered as a dilemma in Iran because of its endemicity in the country.

PP-171 Prevalence of intestinal parasites and profile of CD4⁺ counts in HIV+/AIDS and HIV- individuals in North Iran, 2007–2008

Ahmad Daryani*, Masoumeh Meigouni, Farhang Babamahmoudi, Mehdi Sharif, Alireza Rafiei, Mohammad Araz Mirabi, Mehdi Fakhar, Hajar Ziaei, Shirzad Gholami, Shaban Gohardehi. *Mazandaran University of Medical Sciences*

Background: Intestinal parasites are cause morbidity and mortality in acquired immunodeficiency syndrome (AIDS). This study has been designed to determine the prevalence of intestinal parasites among these individuals.

Methods: A total of 142 stool samples (64 HIV+/AIDS patients and 78 non-HIV infected individuals) collected from Mazandaran province were screened for intestinal parasites, using direct wet mont, formalin-ether sedimentation concentration, modified Ziehl Neelsen, modified trichrome techniques. Each person in this study, was examined for CD⁺ counts.

Results: In both groups monoparasitism was more prevalent than polyparasitism. Polyparasitism was only seen in one person of the control group, including coinfection of *Giardia lamblia* and *Entamoeba coli*. Intestinal parasites were found in 11/64 (17.18%) of patients in HIV+ group, and in 14/78 (17.94%) of controls. Prevalence of parasites detected in HIV+ individuals was as follows: *Cryptosporidium* spp. 9.37%, *G. lamblia* 3.12%, *E. coli* 1/56%, *E. histolytica* 1/56%, *Chilomastix mesnili* 1/56%. Prevalence of parasites in controls was as follows: *Trichostrongylus* spp. 6.41%, *G. lamblia* 3.84%, *Cryptosporidium* spp. 2.5%, *E. coli* 2.5%, *E. histolytica* 1.2%, Hook worms 1.2%. The mean of CD⁺ counts in HIV-positive group (430 cells/microliter) was remarkably less than controls (871 cells/microliter) (p=0.001).

Conclusion: Although the prevalence of intestinal parasites in HIV-positive patients was similar to control group, *Cryptosporidium* spp. was more prevalent in HIV+/AIDS patients. Therefore these patients must be screened and treated to reduce morbidity and improve quality of their life.

PP-172 Fertility and viability rate of hydatid cysts in slaughtered sheep and cattle in Sari, Iran

Ahmad Daryani*, Mehdi Sharif, Afsaneh Amouei, Shirzad Gholami, Hajar Ziaei, Mehdi Fakhar, Shaban Gohardehi. *Mazandaran University of Medical Sciences*

Background: Hydatid disease poses significant economic and public health problems in many temperate and tropical areas of the world. The aim of this study was to determine the fertility and viability of hydatid cysts in slaughtered sheep and cattle.

Methods: Cysts were collected from the liver and lungs of 169 sheep and 171 cattle infected with *Echinococcus granulosus* when slaughtered in industrial abattoir in Sari, Iran 2007. Fertility was determined by the examination of cyst fluid for the presence of

protoscolices. The viability of the protoscolices was assessed by staining with 0.1% aqueous eosin solution.

Results: The fertility rates of hepatic cyst of sheep and cattle were 47.1% and 1.4%, respectively and the fertility rates of pulmonary cyst of sheep and cattle were 39.4% and 8.1%. In the sheep, the fertility of cysts in the liver was higher than that in lungs, but in the cattle the fertility of cysts in lungs was higher than liver. The viability of protoscolices of fertile cysts for sheep and cattle were about 76.9% and 82.5%, respectively.

Conclusion: Based on the finding in the present study, effort should be made to control transmission of cystic echinococcosis by safe disposal of *Echinococcus* cysts such that dogs cannot have access to the cysts.

PP-173 Comparing the efficacy of cultivation, histopathology and molecular methods in diagnosis of *Acanthamoeba* keratitis infection

Fariba Khoshzaban*,¹ Abdulhossein Dalimie-Asl², Mahmoud Jabbarvand³, Taghi Al-Tarighi². ¹*Shahed University*; ²*Tarbiat-Modarres University*; ³*Tehran University*

Background: *Acanthamoeba* is free living Amoebae that may cause keratitis and Granulomatous Encephalitis in humans. *Acanthamoeba* keratitis emerges usually after corneal trauma and touching infected water or wearing contact lenses for medical or aesthetic purposes. Today, different methods have been assessed to diagnose *Acanthamoeba* infection in eye. This research aims at comparing the culturing, histopathology, and molecular methods efficacy to diagnose *Acanthamoeba* infection.

Methods: 70 patients who suffered from corneal lesion and suspected *Acanthamoeba* keratitis were chosen to make samples of their cornea. Furthermore, 17 scraping tissue samples were prepared and studied along 100 infected keratitis-tissue samples. Polymerase Chain Reaction was done for 18s rDNA amplification of the parasite using JDP₁ and JDP₂ as specific primers.

Result: Based on the results, the parasite was diagnosed in 30% of the corneal scraping samples using culturing and molecular methods, but by applying histological method, only 40% of the real cases of infected *Acanthamoeba* were detected and identified. That results show that 71.4% of the total *Acanthamoeba* infected patients, 100% of the females and 50% of the males, had been using contact lenses, of which, 60% had been using medical lenses, 20% cosmetic lenses and 20% both medical and cosmetic lenses.

Conclusion: Since, knowing the results of culturing method is time taking, therefore, it can be concluded that the molecular method, comparing to the culturing and histopathology method, is much more precise and efficient. Also, the PCR method is fast and highly efficient for diagnosis of *Acanthamoeba* keratitis.

PP-174 A case-control study of *Blastocystis hominis* among Iranian population

Mohammad Rostami Nejad, Ehsan Nazemalhosseini Mojarad*, Hossein Dabiri, Zahra Nochi, Mohammad Amin Pourhoseingholi, Manijeh Habibi, Mohammad Reza Zali. *The Research center of Gastroenterology and Liver diseases, Shaheed Beheshti University, M.C., Tehran, Iran*

Background: A case-control study was conducted to investigate the epidemiology and clinical features of *Blastocystis hominis* among Iranian patients with and without GI symptoms.

Methods: Six hundred and seventy patients with GI and Six hundred and seventy patients without GI symptoms were enrolled as cases and controls respectively during 2006-07. Standard microscopic following *in vitro* culture were used to examine the stool samples for presence of trophozoites and cysts of *B. hominis*.

Results: Infection with *B. hominis* occurred most commonly in those with GI symptoms (5.67%) compared with those patients

without GI symptoms (3.43%). The most common symptom in case group was abdominal pain (86.84%). *B. hominis* was mostly found with *Giardia lamblia* in case group and with *Entamoeba coli* in control group. In addition, there were no significant relation between the presence of GI symptoms and the rate of *B. hominis*.

Conclusion: *B. hominis* has long been described as a non-pathogenic protozoan parasite until recently, when claims have been made that it can result in pathogenic conditions. Thus, to confirm the complication is needed to additional study especially on molecular pathogenesis of this organism.

Poster Presentation – Respiratory Tract Infections including Pneumonia

PP-175 Study on the prevalence of human bocavirus among children with acute respiratory tract infection in Guangdong

Qiong Wang*, Fansheng Zeng, Taojun He, Lie Huang, Xuedong Lu. *Shenzhen Futian Hospital*

Objective: To investigate the prevalence of human bocavirus (HBoV) among children with acute respiratory tract infection (ARTI) in Guangdong.

Methods: 447 nasopharyngeal aspirates or swabs from children with acute respiratory tract infection in Guangdong were collected from June 2007 to May 2008. HBoV capsid protein VP gene fragments were detected by using PCR. Positive PCR products were sequenced. The DNA and the translated amino acid sequences were aligned with known HBoV sequences in GenBank and were done phylogenetic analysis.

Results: 23 (5.1%) specimens were positive for HBoV, among which 43.5% (10/23) were codetected with other respiratory virus. The mainly diagnosis for HBoV positive children were wheezing pneumonia, bronchiolitis and bronchial pneumonia. HBoV positive children ranged from 43days to 6 years old, mainly aged ≤ 1 year, among which 43.5% (10/23) were aged 1~6 months and 39.1% (9/23) were aged 7~12 months. HBoV were mainly detected in summer, early autumn and late spring. Through sequence alignment and phylogenetic analysis, The DNA and translated amino acid sequences of VP gene fragments of HBoV positive strains showed 97.8~98.8% and 98.5%~99.2% identity with ST1, respectively.

Conclusion: HBoV was the important pathogen of ARTI children in Guangdong and was more prevalent in infants ≤ 1 year. Although VP gene fragments of HBoV were conservative, there were still some mutant strains leading to amino acid change.

PP-176 Serotype distribution and antibiotic resistance of invasive *Streptococcus pneumoniae* diseases isolated from children in China, 2005–2009

Lian Xue^{*1}, Kaihu Yao¹, Yonghong Yang¹, Guilin Xie², Yuejie Zheng³, Chuanqing Wang⁴, Liya Wan⁵, Huiyun Wang⁶, Yunxiao Shang⁷, Lan Liu⁸, Wei Ji⁹, Changchong Li¹⁰, Yating Wang¹¹, Peiru Xu¹², Sangjie Yu¹, Xuzhuang Shen¹, Xiwei Xu¹, Zunjie Liu¹. ¹Beijing Children's Hospital; ²Lanzhou Institute of Biological Products; ³Shenzhen Children's Hospital; ⁴Pediatric Hospital of Fudan University; ⁵Tianjing Children's Hospital; ⁶Nanjing Children's Hospital; ⁷Shengjing Hospital Affiliated to China Medical University; ⁸Chongqing Children's Hospital Affiliated to Chongqing Medical University; ⁹Suzhou University Pediatric Hospital; ¹⁰Yuying Children's Hospital of Wenzhou Medical College; ¹¹Anhui Medical University Affiliated Hospital; ¹²First Affiliated Hospital of Xinjiang Medical University

Objectives: *Streptococcus pneumoniae* (*S. pneumoniae*, pneumococcus) is a leading cause of bacterial infections in infants

and young children. There is rare information about strains isolated from invasive pneumococcal diseases in China. The aim of this prospective study is to determine serotype distribution and antibiotic resistance of invasive *S. pneumoniae* diseases isolated from children in China.

Methods: All pneumococcal isolates were serotyped by the Quellung reaction using antisera. All isolates were examined for susceptibility by E-test method to 11 kinds of antimicrobials.

Results: A total of 171 isolates were obtained and serotyped and tested for 11 kinds of antimicrobials. The most frequent serotypes were 19F (19.89), 14 (19.3), 19A (18.14), 6B (9.37), 23F (6.44). Of the β -lactam antibiotics tested, amoxicillin was the most active (susceptibility rate: 94.7%). Almost all isolates were highly resistant to erythromycin except for one isolate. There was no isolate unsusceptible to vancomycin and levofloxacin. But there were 29.2% isolates unsusceptible to imipenem. Up to 91.8% isolated were multiple drug resistant. The overall coverage of PCV-7, PCV-10, PCV-13 for serotypes of invasive pneumococcal isolates were 60.3%, 66.7% and 87.8%. Serotype 19F, 19A, 14 were significantly associated with PNSP.

Conclusions: The results of the current study indicate that the problem of antimicrobial resistance of *S. pneumoniae* is worsening over time in China.

PP-177 Etiology of community-acquired pneumonia in young adults in organized collectives

Alina Martynova^{*1}, Ekaterina Nosuch². ¹Epidemiology Department; ²Far Eastern Navy Hospital

Background: In spite of the gained success in diagnostics and treatment, the community-acquired pneumonia (CAP) remains the leading problem of morbidity in the Far East of Russia.

Aim of our research was to assess the etiology of community-acquired pneumonia in young adults (300 patients of Military Center) in period from May 2008 to April 2009.

Methods: Patients were screened with bacteriological, disk-diffusion with MIC, PCR and others.

Results: There were identified bacterial pathogens in 45%, association of bacterial and atypical pathogens in 55% (154 patients), *M. pneumoniae* were the most prevalent 39%, *C. pneumoniae* 33,4% (46 patients), the respiratory tract virus were identified in 29,45%. Among the bacterial pathogens there were *S. pneumoniae* (58,44%), *H. influenzae* (15,06%), *M. catarrhalis* (26,63%). Pneumococcal strains were resistant to penicilline (10%), intermediate resistant in 16,6%; as well they were resistant to macrolides in 12,6%, to fluoroquinolones 20%. The isolates were distributed among four major serotypes: 23F, 14, 18C, 6B. *H. influenzae* was resistant to beta-lactams in 12,8%, to co-trimoxazole in 20,51%. The type B strains were 15,38%.

Conclusions: The gained results showed the significance of the study of causative agents of pneumonia, and emphasize the role of atypical microorganisms at the development of this disease.

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PP-178 Surveillance of antimicrobial resistance in patients with community acquired pneumonia in tertiary care hospital, Manipal

Manish S. Kadam^{*1}, Anantha Naik Nagappa¹, Kiran Bhusare¹, Pranay Wal¹, Kishore G. Sam¹, Pravin N. Khatale². ¹Manipal College of Pharmaceutical Sciences, Manipal, Karnataka, India; ²Institute of Pharmacy, Akola, Maharashtra, India

Background: Community acquired pneumonia (CAP) is associated with substantial morbidity and mortality worldwide. Antimicrobial resistance (AR) has made CAP treatment difficult, increased rates of treatment failure, hospitalization duration, and cost of therapy. Hence the objective of the present study was surveil-