

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

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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

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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

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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

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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