Seroprevalence of Toxoplasma gondii Infection in Women of Child Bearing Age in Isfahan Province, Central Iran: A Population Based Study

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Introduction: Toxoplasmosis is a worldwide infection with important consequences in developing countries. Most studies on toxoplasmosis conducted in women of child bearing age are based on hospital or clinic samples that lack the statistical representation of the whole population. So, we conducted an epidemiological survey in the entire population of women of child bearing age in Isfahan Province.

Methods: In a cross-sectional study in 2010, 217 women in the age range of 15-49 were randomly selected from among participants in another study on hepatitis A. The samples were carried out by the multistage cluster sampling method in the entire population of the Isfahan province. The blood samples obtained were examined for the presence of IgG anti-Toxoplasma gondii antibody by a commercial enzyme-linked immunosorbent assay (ELISA) kit (Dia-Pro, Milano, Italy). The data were analyzed using the Statistical Package for Social Sciences for Windows version 15 (SPSS Inc, Chicago, IL). Chi-square and Fisher's exact tests were employed to examine the antibody status in different ages, marriage, education, and residence groups.

Results: The overall prevalence of positive toxoplasma gondii antibody in the samples was 47.3% (103/217). The peak age of infection acquisition was in the range 30-40 in rural areas and 25-30 in urban districts. The theoretical estimate of congenital toxoplasmosis in these age groups was 1.12 and 1.29 for 100 pregnancies, respectively. There was no significant association between residence, education, and marriage groups on the one hand and the presence of Toxoplasma gondii infection on the other hand.

Conclusions: The findings of the study suggest a moderate prevalence of toxoplasma gondii infection in Isfahan Province, but a high prevalence in ages of high reproductive activities, which necessitates active strategy for the prevention of congenital toxoplasmosis in the province.

DFA (Direct Fluorescent Antibody Assay) diagnosis of Cryptosporidium in diarrheic children referred to Tehran Hospitals from May 2009 to January 2010

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Introduction and Objectives: Cryptosporidium is a coccidian protozoa and a common cause of diarrheal disease worldwide, generally affecting children and the immunocompromised patients. Conventional diagnostic method is modified Zell-Nelsen staining which requires time and skill of microscopist. The aim of this study was comparing two different methods, modified Zell-Nelson staining and Direct Fluorescent Antibody assay.

Materials and Methods: A total of 2510 diarrheal fecal samples collected from children referred to Tehran Hospitals from May 2009 to January 2010. At first, direct smear prepared from specimens and sediments of formaldehyde or supernatant of Scouring flotation method. The smears examined using modified Zell-Nelson staining method and the positive cases were considered using Direct Fluorescent Antibody assay for sensitivity determination.

Results: Thirty positive cases from 2510 samples were detected by modified Zell-Nelson staining method but the positive cases were twenty seven with Direct Fluorescent Antibody assay. Thus the sensitivity of Direct Fluorescent Antibody assay in comparison with modified Zell-Nelson method was computed 90% with 95% CI 95% CI 95%.

Conclusion: With regard to the present data and the lower percentage of Direct Fluorescent Antibody assay than modified Zell-Nelson method, it seems that Direct Fluorescent Antibody assay is less sensitive than the modified Zell-Nelson method.

Prevalence of Trichomoniasis and Candidiasis in women referred to Gynecological center of Najafabad, Isfahan, Iran: 1380-1384

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Introduction and Objectives: Trichomonas vaginalis is a parasite protozoan with a predilection for human urogenital tract and a common agent for vaginitis, cervicitis and urethritis in females. Candida vaginitis which is mostly caused by Candida albicans is the second common cause of vaginal infection in women. The aim of this study was to determine the prevalence and correlation between of Trichomonas and Candida with age, number of pregnancy and method of contraceptive in women referred to Gynecological center of Najafabad, Isfahan, Iran.

Materials and methods: The present cross-sectional analytical descriptive study was performed with data obtained from the 1239 vaginal discharges samples of women referred to Gynecological center of Najafabad, Isfahan, Iran, during 1380 to 1384. The data obtained from the vaginal smears examined by direct wet film. The data were analyzed by SPSS software.

Results: These observations showed, 9% (113/1239) of cases were infected with T. vaginalis and 56.03 (716cases) with