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An Epidemiological and Diagnostic Study of *Toxoplasma gondii* by Serological and Molecular Methods Using nPCR Technique in Pregnant and Abortive Women in Mosul and its Environ

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Abstract

The study examined 120 samples of blood and serum of pregnant women who miscarried in Al Salam Educational Hospital to investigate their incidence of Toxoplasma gondii since 1/5/2013 to 1/5/2014, using latex test and The Enzyme -Linked Immunosorbent Assay and the EnzymeLinked Fluorescence Assay, in addition to Toxoplasma gondii (B1) gene by the Nested polymerase chain reaction technique. The results of the study showed that the best technique for acute T.gondii was nested PCR with 36.6% followed by ELISA 31.6%, ELFA 26.6% and Latex 18.3%. ELISA and ELFA tested high sensitivity to anti-IgM (85% and 73%, respectively), based on the results of the nPCR test as a positive control group, Where as latex test revealed a sensitivity of 50%. The acute infection in Mosul and its suburbs was 36.6%. The results showed no significant differences in different age groups, the housing area has an impact on the incidence rates in the suburbs and villages of Mosul, 42%, while in the city 32.8 %, infection rates rise, with the lower educational level of women. The friction of women with animals and cats raise the infection rate to 53.8%, while the percentage dropped to 23.5% in women who did not treat or contact with animals and cats.

Author Keywords

Toxoplasma gondii, Latex, ELISA, ELFA, nPCR

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