Study on abortion associated with *Toxoplasma gondii* in women based on PCR detection of aborted placenta and maternal serology in Ardabil, Iran

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Infection with *Toxoplasma gondii* in pregnant women may lead to abortion, stillbirth or other serious consequences in newborns. In the present study, the role of *T. gondii* in abortion in human was evaluated by molecular method and confirmatory serologic testing in Ardabil city, Iran. Two hundred samples of placenta and blood samples from women who had abortion in various gestational ages, admitted in Alavi Obstetric and Gynecological Department of Ardabil were collected during 2013 to 2014. Blood samples were tested for specific anti-Toxoplasma antibodies by an Enzyme Linked Immunosorbent Assay (ELISA) and the placenta was tested by nested PCR, using 529 bp elements. Among all samples, maternal seroprevalence (anti-Toxoplasma IgM antibodies) was 5.8% to 14.2% (95% confidence interval) and the estimated abortion prevalence associated with *T. gondii*, based on PCR was calculated as being from 6.3% to 14.7% with 95% confidence interval. Results show moderate logical agreement between the 2 different tests (κ=0.44). A significant relationship was not observed between the presences of *Toxoplasma* with mother’s age, history of abortion, gestational age and mother's disease such as allergy, diabetes, hypertension and hypothyroidism. The present findings reveals that *T. gondii* may be one of the potential agents in causing significant rate of abortion in the Ardabil area and placenta analysis is important to improve the sensitivity of the diagnosis.

Biography
Matin S belongs to Department of internal medicine from Aradabil University of Medical Sciences in Iran. Her research expertise belongs to Detection of *Toxoplasma gondii* and Microbiology.

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