

Comparative Study of Cytomegalovirus, *Listeria monocytogenes* and *Toxoplasma gondii* infections in successful and non-successful pregnancy in Gorgan

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Abstract

Background and objectives: Infection has a Leading role in pregnancy. Cytomegalovirus (CMV), listeria and Toxoplasma are the most common causes of infection in human. Based on the previous researches, about 15-25 percent of being infected during pregnancy leads to some complications such as abortion, fetal death, early labor and etc. This study was designed to determine the seroprevalence of Cytomegalovirus (CMV), Toxoplasma gondii and Listeria monocytogenes among pregnant women in Gorgan, north of Iran (2005-2006).

Material and Methods: we conducted this Simple randomized study on 118 unsuccessful pregnant woman and 99 successful ones referred to Dezhiani hospital in Gorgan. We assayed both IgG and IgM antibodies for CMV and Toxo by Elisa and IFA method for Listeria. In addition, we fill out a Check list and then use SPSS soft ware, chi square to analyze the data.

Results: The frequency of IgG for CMV and Toxo is 89.9% and 45.5% in successful pregnant women and 77.1% and 44.1% for unsuccessful pregnant women ($P=0.41$, $P=0.01$). IgM frequency for CMV and Toxo is 14.1% and 46.5% in successful women and 30.5 and 21.7% in unsuccessful ones. ($P=0.003$, $P=0.002$) Total frequency (IgG, IgM) for Listeria is 7.62% and 3.03% in successful and unsuccessful women, respectively. There is a significant relation between abortion and IgM titer against Toxoplasma in successful and unsuccessful groups. ($P=0.003$). This relation is true for total antibody titer against Listeria ($P=0.003$).

Conclusion: Because of high titer of antibodies against CMV, Toxo and Listeria in unsuccessful pregnant women, suffering from these agents during pregnancy may result in abortion and fetal death. Hence, we recommend to hold some preventive and educational program and also to assay antibodies against these agents.

Key words: Listeria monocytogenes, Cytomegalovirus (CMV), Toxoplasma gondii, success and non-success pregnancy, Serology, Gorgan