

ABSTRACT

Maternal infection with *Toxoplasma gondii* acquired during pregnancy could cause abortion, intrauterine fetal death and serious sequelae in the neonatal period or years after birth. It is necessary that an early indicator to confirm prenatal diagnosis of congenital toxoplasmosis so that treatment can be performed during pregnancy.

A laboratory observasional study, to analyse congenital intrauterine infection, infant's IgM production and correlation between infant's IgM and seromaternal IgM was conducted to the study.

To gain the objective of the study, it was arranged infant infection as the study model. Infant infection resulted from maternal infection with toxoplasmosis during pregnancy which is classified as seroconverter and re-infection in 14 to 26 gestational weeks. The seroconverters defined as the patients who were initially seronegative, but who became positive and considered to have been infected during pregnancy. The examination of P.C.R., IgM-IgG Elisa and inoculation on mice with amniotic fluid were proceeded on these maternal groups after gaining amniotic fluid from amniocentesis.

245 pregnant women with 14 to 26 weeks gestational age were serologically examined with Elisa test for IgG and IgM antibodies. According to the individual immune status, the results were grouped as 25 seroconverters and 29 reinfection acute toxoplasmosis during pregnancy. P.C.R. test on amniotic fluid gave positive result 15 (60%) of seroconverter, which is significantly more ($p < 0,05$) than 5 (17,2%) of reinfection. By Elisa test showed 11 (44%) positive of seroconverter group compared with 4 (13.8%) of reinfection group.

Morefar about the existence of infant's IgM spesific and its correlationship with infection, the stastical analysis resulted in:

1. Infant's IgM spesific in amniotic fluid was different significantly between two groups ($p < 0,05$ by chi square test).
2. Seroconverter group had stronger correlationship ($p < 0,01$; Pearson's correlation) between infant's spesific IgM and infection than reinfection group.
3. The sensitivity of the infant's spesific IgM in amniotic fluid as a diagnostic tool (marker) of infection were 73.3% and 100% for each group of seroconverter and reinfection, and its spesificity respectively were 60% and 95.8%.
4. There is a negative correlationship between the concentrations of infant's spesific IgM and maternal serum IgM in reinfection group.

Key - words: Infant's spesific IgM, prenatal diagnosis, amniotic fluid, congenital toxoplasmosis