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ePoster Viewing

Diagnostic/laboratory methods other than molecular

Early diagnosis of acute toxoplasmosis in IgG-negative IgM-positive pregnant women

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Objectives During maternal primary infection *Toxoplasma gondii* can be trasmitted to the fetus in a time dependent way. Congenital toxoplasmosis could be more severe and less frequent if the mother became infected at the beginning of gestation and mainly asymptomatic but more frequent for third trimester infections.

As previously reported early treatment (during the first 4 weeks after contamination) can decrease the severity of congenital infection and sequelae in newborns.

In pregnant women who are anti-toxoplasma IgG negative and IgM positive, the differential diagnosis between early seroconversion and false positive IgM result is always puzzling

as a result of the high sensitivity of new automatized tests. Furthermore therapy with spyramicin ,usually given when positive IgM are found,can delay IgG production and mask

seroconversion .The objective of our study is to evaluate a diagnostic flow chart aimed to identify acute toxoplasma infection in pregnant women who are IgG negative IgM positive at the first sampling.

Methods Sixty eight pregnant women referred to the Infectious Diseases outpatient clinic for a suspected seroconversion for toxoplasmosis (IgG negative IgM positive) were enrolled. The serological results were confirmed with LIAISON® Toxo IgG / IgM CLIA , ETI-ToxoA (Diasorin Saluggia Italy) VIDASTOXO IgG ELFA ,ISAGAToxo IgM (Biomerieux Marcy l'Etoile France), ImmunoblotToxo IgG/ IgM (LD-Bio Lyon France)and Toxoplasma Q-PCR Alert Kit (ELITechGroup SpA Torino Italia) In most of them a miniaturized in house IGRA test was also done and the IFN production was evaluated by IGRA- Quantiferon – ELISA (Cellestis Australia). Every woman was treated with spyramicin at the first visit and therapy discontinued if infection excluded . These patients underwent weekly serological follow up All infected women received counseling , prenatal diagnosis and serological and clinical follow up of the newborn were raccomended.

Results Thirty one women were IgM positive on Immunoblot at the first sample and 22 also for IgG undetectable with traditional tests. All but 5 showed seroconversion1-2 months after the beginning of therapy. In 16 of them IGRA was performed and was always positive. Newborns follow-up was completed in 20 newborns and two infected babies were recorded. Thirty seven women were Immunoblot IgM and IgG negative;22 had also a negative IGRA test. For all of them therapy was discontinued and serology monitored weekly. No seroconversion was recorded and 9 became completely negative at the end of pregnancy. Follow up was completed in 14 newborn without any congenital infection.

Conclusion Screening for toxoplasmosis in pregnancy requires very sensitive tests in order to find out all the primary infections . Tests like type II Immunoblot and IGRA can discriminate between real seroconvesion and false positive results thus avoiding anxiety , unnecessary therapy , and prenatal diagnosis in uninfected women.