

P1385 **Low or intermediate antitoxoplasma IgG avidity index in the first trimester of pregnancy: the incidence of congenital toxoplasmosis**

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**Background:** Congenital toxoplasmosis (CT) is associated to a 1-2% risk of death or severe sequelae and involves 1-10 fetuses/10,000 live newborns (in Italy about 1-2 out of 10,000). Transmission risk for women seroconverting in the first trimester of pregnancy is 5.4% (95%CI 3.8-7.3%).

It is often very difficult, without knowing the pre-conception serostatus, to date the infection when both anti-Toxoplasma IgG and IgM antibodies are positive. High IgG avidity index (AI) in the first trimester can exclude CT, but very little is known about intermediate and low avidity in the beginning of pregnancy, that are always counselled and treated as seroconversions. Aim of our study is to estimate the risk of CT in newborns from mothers with low or intermediate AI in the first trimester of pregnancy in Italy.

**Materials/methods:** In this retrospective study we enrolled all women seen for suspected Toxoplasma infection at the outpatient of Fondazione IRCCS Policlinico San Matteo Pavia Italy and Spedali Civili General Hospital Brescia (Italy) between 2006 and 2015 with positive anti-toxoplasma IgG and IgM, and low/ intermediate avidity in the first trimester of gestation. All were treated with Spiramycin. When requested, amniocentesis and prenatal diagnosis have been performed with a commercial real time PCR. Fetal infection was defined by positive PCR result confirmed on aborted materials or newborn follow-up.

**Results:** Overall, 778 women were enrolled; avidity was low in 532 (68%) and intermediate in 246 (32%). 528 (67.9%) amniocentesis were performed, with no fetal losses. There were 19 (2.4%) miscarriages and 15 (1.9%) pregnancy terminations; 9 (1.6%) were lost to follow-up after birth. In two cases amniotic fluid PCR was positive, but CT was confirmed in 1 case only (0.13%, 95% CI 0.02-0.75%), in a low AI mother, with positive aborted material.

**Conclusions:** In our cohort, incidence of congenital toxoplasmosis was much lower than expected. The prenatal diagnosis algorithm confirms its safety and good diagnostic validity with a NPV 100% (95%CI 98.8-100%). This data must be taken in account in the counselling of these patients.