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Role of Natural Toxoplasmosis

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Letter to Editor

There are two time points for the preface of specificanti-T. gondii treatment 1) antenatal treatment, aimed at forestallment of materno-fetal transmission of spongers (MFTP) and/ or reducing fetal damage, and 2) postnatal treatment, with the purpose of relief of clinical instantiations and/ or forestallment of long- term sequelae in the infected bambino.

Still, the benefits of antenatal treatment has been dissimilarly appreciated in the literature due to confounding factors, since it may depend, among others, on the type of treatment, the time of preface after motherly infection, the cure rules and duration. Thus, a prerequisite is to know the accurate time of motherly infection, which is attainable only in countries with serological webbing programs of pregnant women, i.e. a limited number of European countries. The benefit/ threat rate of postnatal treatment has also been questioned, especially in asymptomatic or subclinical infected cases, for whom the duration of treatment and the long- term benefits are still under debate.

Women infected during gestation (or around generality) are generally offered spiramycin (SPI), a potent macrolide antibiotic that concentrates in the placenta, making it an ideal primary treatment option for the forestallment of MFTP. Due to the low rate of adverse goods, SPI is a comfortable treatment option while awaiting amniocentesis. Unfortunately, SPI is ineffective for the treatment of an established fetal infection, since it slightly crosses the placental hedge.

PCR analysis of the AF samples from the 16th gravid week (gw) onwards allows for a treatment switch to PYR- grounded combinations, primarily PYR – sulfadiazine combination (PYR-SDZ) when a positive PCR result is attained. Still, the PYR-SDZ combination is teratogenic and hence should be avoided during the first 14 gw, although this cut-off varies between countries. Anyway, antenatal opinion is noway performed before 14 gw, therefore SPI treatment is the rule during the first trimester of gravidity.

The defensive effect of SPI has long been known. The classical study over 50 drop in MFTP (45 in undressed *vs.* 22 in the treated group), but the results were poisoned by not taking into account the gravid age at seroconversion. Studies that followed were also in favor of antenatal treatment. Still, several experimental studies published since 1999 cast mistrustfulness on the capacity of antenatal treatment to reduce the inflexibility of CT, while admitting its part in reducing maternofetal transmission. Farther studies dealt primarily with the timing of the preface of antenatal treatment *vs.* motherly seroconversion, with the debit of incorporating data from countries with variable webbing practices, therefore leading to query on the time of motherly infection. The 2005 EMSCOT study reported 72 lower odds of intracranial lesions in babies born to maters treated within 4 weeks after seroconversion (OR0.28; CI0.08 –0.75). The SYROCOT 2007 meta- analysis of 1438 treated maters revealed that inauguration of antenatal treatment within three weeks after seroconversion led to a 52 reduction of MFTP compared with treatment introduced after 8 or further weeks, but reported no clear effect of antenatal treatment on the rate of clinical instantiations among infected babe. Still, the effect of treatment on clinical sequelae was estimated only on live born babies, and the study suffered from bias due to diversity of data. On the other hand delayed treatment (> 8w after seroconversion) to be a threat factor for characteristic CT. Of note, the preface of yearly methodical webbing for toxoplasmosis in gestation in France has redounded in an overall drop in the rate of MFTP from 29 before 1992 to 24 after 1992, and an impact of immediate preface of PYR-SDZ treatment on the reduction of clinical CT cases from 11 before 1995 to 4 after 1995. Austria, another European country with a decades-long public webbing program for toxoplasmosis in gestation fulfilled a fascinating reduction in MFTP among prenatally diagnosed and treated women – 9 in comparison to preliminarily 51 in undressed women, according to the Austrian Toxoplasmosis Register data.

A lately published randomized, open- marker phase-III clinical trial on the efficacity and compliance of SPI*vs*. PYR-SDZ in reducing the MFTP included 36 French centers with registration of 143 women who seroconverted in gestation during the 2010 – 2014 period. Proven fetal infection after amniocentesis> 18 gw started a switch from treatment with SPI to PYR-SDZ up to delivery. The MFTP was lower in the PYR-SDZ group –18.5 (12/65) *vs.* 30 in the SPI group (18/60). The efficacy of PYR-SDZ *vs* SPI was advanced when the treatment was introduced within 3 weeks after seroconversion (OR1.20 *vs* OR0.03), suggesting a window of efficacity for the PYR-SDZ authority to help MFTP after motherly infection. Either, follow-up revealed abnormal ultrasonographic findings in8.6 (6/70) fetuses in the SPI group (including 2 cases of severe CT leading to gestation termination) whereas none were observed in the PYR-SDZ group (P = 0.01).

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