

EVALUATION OF THE PLACENTAL TRANSMISSION OF GENOTYPICALLY DISTINCT *Toxoplasma gondii* STRAINS IN BALB/C MICE

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ABSTRACT: *Toxoplasma gondii* causes abortions or congenital diseases and has a predominant population structure of lineages designated types I, II, and III. We intended to verify if the chronic infection with a genotype type II strain (ME49) prevents the transplacental transmission of a genotype type III strain (M7741), and vice versa; to evaluate the presence of the parasite in the brain, uterus, placenta and fetus, using the mice inoculation (MI) or polymerase chain reaction (PCR); and to associate the obtained results with the maternal and fetal parameters. Experimental groups (G) of six Balb/c mice each were inoculated with ME49 strain before the mating, and with M7741 strain and 0.85% saline during pregnancy, respectively (G1 and G3). The female mice of G2 and G4 were infected with M7741 strain before the mating, and with ME49 and 0.85% saline during pregnancy, respectively. The female mice of G5, G6, and G7 were inoculated with 0.85% saline solution before the mating, and with ME49 and M7741 strains, and 0.85% saline solution during pregnancy, respectively. The mice received 10^4 bradyzoites orally, 30 days before mating and between the 12th and 15th day of pregnancy. PCR and MI did not detect congenital infection. The placentas from chronically infected female mice (G3 and G4) and from the mice infected during pregnancy (G6) were positive to PCR. We did not detect the agent in brains and fetus of G5 and G6, what may be explained by the short period between the inoculation of bradyzoites during pregnancy and the cesarean, and also by the infectious dose and the oral administration. Thus, it was not possible to evaluate the reinfection of the transplacental transmission. We suggested that the patogeny of the chronic toxoplasmic infection influenced the results of the female mice and fetal parameters and the study about the virulence of ME49 and M7741 strains in Balb/c female mice.

KEY WORDS: Balb/c, mice, congenital infection, *Toxoplasma gondii*.

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