

**IMMUNE RESPONSE OF IGG ANTIBODIES IN GOATS REINFECTED WITH *Toxoplasma gondii***

(RESPOSTA IMUNE DE ANTICORPOS IGG EM CABRAS REINFECTADAS POR *Toxoplasma gondii*)

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We evaluated the immune response of IgG antibodies in non-infected, infected and reinfected goats with *Toxoplasma gondii*. Twenty-five non-pregnant females negative for *T. gondii* were randomly allocated to five experimental groups (n=5): 20 non-pregnant females were orally inoculated with  $2.5 \times 10^3$  *T. gondii* oocysts ME49 strain (groups I, II, III and IV) and five remaining females were kept as negative control (GV). Reproductive management was performed in all females and initiated when the inoculated females displayed IgG titers  $<1,024$ . Of these, 15 pregnant females chronically infected were reinoculated with  $2.5 \times 10^3$  oocysts VEG strain, via oral, at 40 (GI), 80 (GII) and 120 (GIII) days of gestation. The remaining pregnant females were part of the infected (GIV) and uninfected (GV) control groups. Clinical and serological exams (IgG IFAT [indirect immunofluorescence antibody test]) were performed on days 0 (prior to inoculation), 3, 6, 9, 15 and 21 and every seven days post-inoculation (DPI). Exams were also performed on the 3<sup>rd</sup> day and every seven days post-reinoculation (DPR). In goats infected with *T. gondii*, the following parameters were observed (groups I, II, III and IV): peak  $40.2^\circ\text{C}$  (GIV) at 9 DPI, seroconversion at 21 DPI with mean IgG titers as high as 16,384, and at 119 DPI, stabilization of the chronic phase of toxoplasmosis (IgG $<1,024$ ). In reinfected goats: an increase in IgG titers ( $\geq 1,024$ ) occurred at 28 (GI), 7 (GII) and 3 (GIII) DPR, indicating acute toxoplasmosis (DUBEY & KIRKBRIDE, 1989) and a breach of immune protection (DAO et al., 2001). In the goats of GIV, the IgG titers remained below 1,024 throughout the gestation period and GV showed no anti-*Toxoplasma* IgG antibodies throughout the study. Chronic infection with *T. gondii* did not prevent a new immune response following reinfection with different strains of the parasite, in pregnant goats in different days of gestation.

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