

SEROEPIDEMIOLOGICAL SURVEY OF *Neospora caninum* IN SHEEP FOR SLAUGHTER

(INQUÉRITO SOROEPIDEMIOLÓGICO DE *Neospora caninum* EM OVINOS DESTINADOS
AO ABATE)

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Neospora caninum is an obligate intracellular protozoan responsible for an emergent disease with economic impact due to reproductive losses and whose zoonotic potential is until now unknown. Different animal species have been reported as susceptible to *N. caninum* infection and serologic evidence of human exposure was also demonstrated in different studies (NAM et al., 1998; TRANAS et al., 1999; LOBATO et al., 2006). The first report of neosporosis in sheep occurred in 1990 (DUBEY et al., 1990), in a lamb with clinical signs of neurologic disease. In Brazil, there are few reports of natural infections in sheep. Thus, the present study aimed to survey the antibodies and risk factors to *Neospora caninum* in sheep for slaughter. Serum samples from 596 sheep in São Paulo and Rio Grande do Sul were evaluated by indirect fluorescence antibody test (IFAT). Of all samples tested, 353/596 (59.23%) were positive, with titles 25 (129; 36.54%), the adopted cut-off; 50 (131; 37.11%), 100 (65; 18.41%), 200 (20; 5.67%) and 400 (8; 2.27%). Among the positive animals, 263/353 (74.50%, CI 95% 69.71-78.77%) were from Rio Grande do Sul while the city of Pirajuí, located in São Paulo, presented the highest percentage of seropositive animals (25/30; 83.33%). Animals reared under semi-intensive system had lower percentages of seropositivity, with 45.00% (27/60; CI95% 33.06–57.55), as compared to intensive (27/45; 60.00%, CI95% 45.66–73.27) and extensive (299/491; 60.90%, CI95% 56.51–65.11) systems. The epidemiological variables associated with the serology were significantly different in relation to sex ($P=0.02$; OR=1.46, CI95% 1.05–2.04), breed ($P=0.02$), State ($P=0.03$; OR=1.43, CI95% 1.00–2.05) and municipality ($P=0.00$). However, the multivariate analysis showed that, through logistic regression, the association was evident only for the State ($P=0.05$; OR=1.39, CI95% 1.00-1.95). The results showed the presence of infection by *N. caninum* in sheep herds of slaughterhouses.

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