

Prevalence and factors associated with *Leptospira* spp infection in dogs and cats in the regions of Los Ríos and Los Lagos, South of Chile

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A cross-sectional study was conducted in Los Ríos and Los Lagos regions to determine the Apparent prevalence (AP) and True Prevalence (TP) of *Leptospira* spp exposure, antibody titers, individual characteristics and risk factors associated with samples taken from 390 dogs and 104 cats. Positiveness was detected via Microscopic Agglutination Test with a panel of 6 serovars. For dogs, the AP was 6.2% (95% CI=3.8; 8.5) and TP was 2.7% (95% CI=1.1; 4.3). Positivity was detected for serogroups Sejroe, Pomona, Canicola, Ballum and Icterohaemorrhagiae with titers ranging from 1:100 to 1:1,600; the most frequent serovar was *L. interrogans* serovar Pomona (29.2%). Positive animals were mixed breed (37.5%), males (54.2%), between 1 to 3 years old (41.7%), living outside the home (66.7%), without clinical signs of leptospirosis (87.5%) and from urban areas (62.5%). Contact with cattle, sheep, goats, pigs and/or horses was a risk factor, but not statistically significant (OR=1.9; 95% CI=0.8; 4.5). In cats, AP was 4.8% (95% CI=0.7; 8.9) and TP was 1.3% (95% CI=1.1; 4.3). Positivity was detected for serogroups Pomona, Canicola, Icterohaemorrhagiae and Ballum with titres of 1:100; the most frequent serovar was *L. interrogans* serovar Canicola (40.0%). The positive cats were domestic short hair breed (60.0%), males (80.0%), between 1 to 3 years old (60.0%), hunted rodents (80.0%) without clinical signs of leptospirosis (100.0%) and from rural areas (80.0%). Significant risk factors were contact with rodents and/or hares (OR=14.2; 95% CI=1.4; 142.4) and live inside their home (OR=17.4; 95% CI=1.5; 205.1). Is necessary to monitor the epidemiological situation of the infection in these areas and keep the owners informed about the preventive measures that may apply to pets and humans given the zoonotic potential of the disease.