

Title: *Mycoplasma canis* and *M.edwardii* DETECTED BY PCR IN DOGS WITH RESPIRATORY DISEASE

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Abstract:

Mycoplasmosis in dogs can be caused by various species of mycoplasma such as *Mycoplasma canis*, *M. cynos*, *M. edwardii* and *M.molare*. *M. cynos* is more related to respiratory disease while *M. canis* to the reproductive disease in dogs. Mycoplasmas in general have been considered members of microbiota respiratory tract of dogs, but their relationship to respiratory disease is not well established. The objective of this work was to investigate *M. canis*, *M. edwardii*, *M. cynos* and *M. molare* in dogs with apparent respiratory clinical signs by PCR. There were analyzed 31 samples from 15 animals (12 females and 3 males), being 15 swabs from oropharynx, 15 swabs from genital tract and one bronchial lavage of Brazilian Terrier dogs, aging from 6 months to 3 years. DNA extraction was done by Phenol-Chloroform method and PCR was carried out using primers to *Mycoplasma* spp. The generic positive samples were subjected to a new PCR with specific primers to *M. canis*, *M. edwardii*, *M. cynos* and *M. molare*. Of the 31 samples tested by generic PCR, 80.65% (25/31) were positive for *Mycoplasma* spp. and 19.35% (06/31) negative. Specific PCR results is follows: *M. canis*, 48% (12/25) of the samples positive; *M. edwardii*, 4% (1/25); *M. canis* plus *M. edwardii*, 48% (12/25). As to the collecting site: oropharynx, yielded 14 positive samples, being 35.71% (5/14) for *M. canis* and 64.29% (9/14) for both mycoplasma; and genital tract, 11 positive samples, being 63.63% (7/11) for *M. canis*, 9.09% (1/11) for *M. edwardii* and 27.27% (3/11) for both. In this study, there were obtained *M. canis* and *M. edwardii* in the samples, and it was observed both of them in nearly half of the samples tested, featuring mixed infection. The PCR was able to diagnose *M.canis* and *M. edwardii* in dogs with respiratory disease. There are few published studies regarding canine mycoplasmosis and this is a research field deserving attention toward the elucidation of mycoplasma involvement in dogs diseases.

Key-words: Mycoplasmosis, dogs, respiratory, PCR

Financial Support: CNPq e FAPERJ