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Acute Leptospirosis (*Leptospira Pomona*) in a Great Dane

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ABSTRACT

Background and Aim: Leptospirosis is a zoonotic disease caused by bacteria of the genus *Leptospira*. A 1-year-old male Great Dane dog presented with clinical signs of lethargy, vomiting, shivering, reluctance to move, lameness, and generalized muscle tenderness at the teaching hospital of the Faculty of Veterinary Medicine, Bahonar University, Kerman. The current study was undertaken to examine the infection of the specified dog with the *Leptospira* pathogen and to determine its source.

Materials and Methods: A serum sample was obtained from the suspected canine, and a serology test was conducted using a microscopic agglutination test with the assistance of a commercial live antigen suspension to identify antibodies against *Leptospira* serovars in the dog's serum.

Results: Clinical examination revealed dehydration, tachypnea, jaundice, petechiae on the mucous membranes, and epistaxis. Laboratory findings included leukocytosis with a left shift, thrombocytopenia, anemia. Bilirubinuria was detected on urinalysis, and a microscopic agglutination test (MAT) was positive for *Leptospira pomona*.

Conclusion: As the main hosts of *Leptospira pomona* are horses and the serology test for one of the horses exposed to the case was positive, it can be concluded that the source of the disease was horses. The authors recommend vaccinating dogs with a polyvalent *Leptospira* vaccine that includes the *Pomona* serovar to prevent leptospirosis in endemic areas. Dog owners should also be advised of the potential risk of environmental contamination with *Leptospira*, particularly from mice, which are intermediate hosts of this bacteria. Public awareness of leptospirosis should also be raised to promote early diagnosis and treatment and to raise the level of hygiene in endemic areas.

Keywords: Leptospirosis, dog, horse, *Leptospira pomona*

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