

Treatment and outcome of dogs with leptospirosis: 36 cases (1990-1998).

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OBJECTIVE: To characterize serologic and clinical features and outcome of dogs with leptospirosis that were treated conservatively (i.e., medical management alone) or with hemodialysis. **DESIGN:** Retrospective study. **ANIMALS:** 36 dogs with leptospirosis. **PROCEDURE:** History; results of physical examinations, ultrasonography, and serologic, hematologic, and serum biochemical analyses; time to resolution of azotemia; and outcome were obtained from medical records. Dogs were treated conservatively (n = 22) or with hemodialysis (14). **RESULTS:** Between 1990 and 1998, amount of rainfall was positively correlated with number of cases of leptospirosis identified per year. Serum antibodies against 6 *Leptospira* serovars were measured, and titers were highest to *Leptospira pomona* in 16 (44%) dogs, *L bratislava* in 9 (25%) dogs, and *L hardjo* in 1 (3%) dog. Eight (22%) dogs had equally high titers to *L pomona* and *L bratislava*, 1 (3%) had equally high titers to *L grippotyphosa* and *L canicola*, and 1 (3%) had high titers to *L grippotyphosa*, *L pomona*, *L canicola*, and *L bratislava*. During initial evaluation, all dogs were azotemic. Thirty (83%) dogs survived, including 12 of 14 (86%) dogs treated with hemodialysis and 18 of 22 (82%) treated conservatively. Serum creatinine concentration was similar in both groups after resolution of clinical signs. **CONCLUSIONS AND CLINICAL RELEVANCE:** Infection with *L pomona* and *L bratislava* was recognized as a cause of leptospirosis in dogs, and resulted in development of acute renal failure with various degrees of azotemia. Prognosis for dogs with mild to moderate azotemia was good with conservative treatment, whereas treatment with hemodialysis appeared to improve prognosis for dogs with severe azotemia.