

## The Seroprevalence of Canine Brucellosis in Shepherd Dogs <sup>111</sup>

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[1] This study was presented "I. National Zoonosis Congress" held in Erzurum - TURKEY, 3-6 December, 2007.

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Yayın Kodu (Article Code): 2008/93-E

### Dear Editor,

We would like to report the frequency of Brucellosis as a zoonotic disease in shepherd dogs living in the villages of Van region, Turkey.

Canine brucellosis is a zoonotic disease caused by *Brucella canis* (*B. canis*), a rough, small, gram-negative, intracellular bacterium <sup>1</sup>. It was reported that the infection caused abortion and infertility in female dogs, epididymitis and testicular atrophy in male dogs, and generalized lymphadenitis in both <sup>2</sup>. Because the disease develops asymptotically in dogs and gives uncertain clinical symptoms, laboratory test are very important for the diagnosing of this disease. Blood culture as well as serological tests is used for diagnosis <sup>3</sup>.

Sera of 20 shepherd dogs aged 3-6 years and living in the center villages of Van region evaluated using Standard Tube Agglutination Method (Wright) to determine presence of *Brucella canis* antibodies.

*Brucella canis* antibodies were determined in 2, 2, and 3 dogs at 1/20, 1/80 and 1/160 titers, respectively. No antibody was determined in 13 dogs indicating that active brucellosis was 15% and the seroprevalence was 35%.

Maintenance conditions of dogs affect prevalence of the disease. Infection among unattended dogs has higher prevalence than that of other dogs and this is resulted from the fact that unattended dogs are often in closer contact with infected materials <sup>4</sup>. Nevertheless, although the infection the ratio is low in the dogs kept at home for specific purposes because of zoonotic characteristic of the infection there is a potential risk for human health in this instant. The diagnosis of Brucellosis probably by contamination from dogs in two patients in our country <sup>5</sup> indicates the importance of the issue.

The seropositivity of canine brucellosis was found as 15.6% <sup>6</sup>, 7.5% <sup>7</sup> and 30% <sup>8</sup> in unattended dogs. In domestic dogs seropositivity was determined as 4.5% <sup>6</sup> and 4.8% <sup>9</sup>. In farm dogs prevalence of infection was 42.1% <sup>9</sup> and 9.1% <sup>10</sup>. The high ratio of seropositeness found in the present study could be explained by the fact

that shepherd dogs reach infected materials easily.

To conclude, *B. canis* infection in the analyzed serum samples was found positive with the ratio of 35%. When the studies in the region were taken into account, it was concluded that the infection was dangerous for public health and probably contamination ratio was high. This result indicates that preventive measures should be taken against *B. canis* and the disease is a potential risk for human health.

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