

ABSTRAK

EVALUASI FUNGSI HATI DAN PROTEIN PLASMA PADA KUCING PENDERITA LEPTOSPIROSIS DI KABUPATEN SLEMAN

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Leptospirosis merupakan salah satu penyakit zoonotik yang dapat menginfeksi kucing serta sering tidak menunjukkan gejala klinis sehingga berpotensi tidak terdeteksi. Penelitian ini bertujuan untuk menilai fungsi hati dan protein plasma kucing yang mengalami leptospirosis di Kabupaten Sleman yang terinfeksi berbagai serovar *Leptospira*. Penelitian menggunakan 116 sampel darah kucing, jumlah sampel mengikuti rumus Martin et al (1987) dengan perkiraan prevalensi 3% pada $P \leq 0.05$. Sampel dianalisis dengan metode *Microscopic Agglutination Test* (MAT) terhadap serovar serovars: Icterohaemorrhagiae, Javanica, Celledoni, Ballum, Pyrogenes, Cynopeteri, Rachmati, Australis, Pomona, Canicola, Grippotyphosa, Bataviae, Hardjo, and Tarrasovi untuk melihat adanya aglutinasi pada titer 1:100. Pemeriksaan kimia darah meliputi ALT, AST, f-SAA, total protein plasma, serta rasio albumin/globulin. Hasil penelitian menunjukkan bahwa 12 sampel positif leptospirosis, 10 sampel positif serovar Bataviae, 1 sampel positif serovar Ballum, dan 1 sampel positif serovar Icterohaemorrhagiae. Serovar Bataviae umumnya tidak menunjukkan gejala klinis dan perubahan laboratoris yang jelas, sedangkan serovar Ballum dan Icterohaemorrhagiae lebih banyak menunjukkan perubahan laboratoris dan gejala klinis seperti, muntah dan diare. Perubahan laboratoris terjadi terhadap kadar ALT, AST, f-SAA, total protein plasma, dan rasio A/G pada kucing positif leptospirosis. Berdasarkan hasil tersebut, dapat disimpulkan bahwa kejadian leptospirosis pada kucing di Sleman mencapai 10,34% (12/116) dan sebagian besar disebabkan oleh *Leptospira interrogans* serovar Bataviae. Leptospirosis pada kucing yang disebabkan oleh serovar Bataviae bersifat subklinis, leptospirosis yang disebabkan oleh serovar Ballum dan Icterohaemorrhagiae dapat menimbulkan gejala klinis dan peningkatan ALT, AST, f-SAA, dan total protein plasma. Disarankan diagnosis leptospirosis pada kucing sebaiknya mempertimbangkan kombinasi parameter serologis, klinis, dan biokimia darah.

Kata kunci: kucing, leptospirosis, serovar, gejala klinis, biokimia darah

ABSTRACT

EVALUATION OF LIVER FUNCTION AND PLASMA PROTEIN IN CATS WITH LEPTOSPIROSIS IN SLEMAN REGENCY

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Leptospirosis is a zoonotic disease that can infect cats and often presents without clinical symptoms, making it prone to going undetected. This study aimed to assess liver function and plasma protein levels in cats with leptospirosis in Sleman Regency that were infected with various *Leptospira* serovars. The study used 116 feline blood samples; the sample size was calculated using the formula by Martin et al. (1987) based on an estimated prevalence of 3% at $P \leq 0.05$. Samples were analyzed using the Microscopic Agglutination Test (MAT) for the following serovars: Icterohaemorrhagiae, Javanica, Celledoni, Ballum, Pyrogenes, Cynopteri, Rachmati, Australis, Pomona, Canicola, Grippotyphosa, Bataviae, Hardjo, and Tarrasovi to detect agglutination at a titer of 1:100. Blood chemistry tests included ALT, AST, f-SAA, total plasma protein, and the albumin-to-globulin ratio. The Bataviae serovar generally does not show clear clinical signs or laboratory abnormalities, whereas the Ballum and Icterohaemorrhagiae serovars are more likely to show clinical signs and laboratory abnormalities, such as vomiting and diarrhea. Laboratory abnormalities were observed in the levels of ALT, AST, f-SAA, total plasma protein, and the A/G ratio in cats that tested positive for leptospirosis. Based on these results, it can be concluded that the incidence of leptospirosis in cats in Sleman reached 10.34% (12/116) and was primarily associated with *Leptospira interrogans* serovar Bataviae. Leptospirosis in cats caused by the Bataviae serovar is subclinical, whereas leptospirosis caused by the Ballum and Icterohaemorrhagiae serovars can be associated with clinical symptoms and elevated levels of ALT, AST, f-SAA, and total plasma protein. It is recommended that the diagnosis of leptospirosis in cats be considered a combination of serological, clinical, and blood biochemical parameters.

Keywords: blood biochemistry, cats, leptospirosis, serovar, zoonosis