

ABSTRAK

KAJIAN LINTAS SEKSIONAL RESISTANSI *Staphylococcus* sp. TERHADAP *SULFAMETHOXAZOLE-TRIMETHOPRIM* PADA PASIEN KUCING DI KLINIK HEWAN KOTA YOGYAKARTA DAN KABUPATEN SLEMAN

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Antimicrobial Resistance (AMR) menjadi tantangan serius bagi kesehatan masyarakat saat ini. Resistansi dapat menyebar dari hewan ke manusia atau dari hewan ke hewan melalui makanan, air, atau lingkungan. *Sulfamethoxazole-trimethoprim* merupakan antibiotik spektrum luas yang sering kali digunakan sebagai pengobatan di klinik hewan. Penelitian ini bertujuan untuk mengidentifikasi tingkat resistansi *Staphylococcus* sp. terhadap *sulfamethoxazole-trimethoprim*, serta mengetahui faktor risiko keberadaan *Staphylococcus* sp. dan resistansi *sulfamethoxazole-trimethoprim* terhadap kucing yang merupakan hewan kesayangan bagi sebagian besar masyarakat saat ini dan banyak melakukan interaksi dengan manusia.

Sebanyak 160 sampel spesimen usus rektum diambil pada kucing dari 10 klinik di Kota Yogyakarta dan 22 klinik yang berada di Kabupaten Sleman dengan pendekatan kajian lintas seksional. Penelitian ini menggunakan teknik sampling random sederhana. Isolasi dan identifikasi *Staphylococcus* sp. menggunakan media *Mannitol Salt Agar* (MSA), dengan dilanjutkan pengujian pewarnaan Gram, uji katalase, uji koagulase, uji gula (*mannitol*), dan uji *Voges-Proskauer* (VP). Isolat yang terkonfirmasi sebagai *Staphylococcus* sp. dilanjutkan dengan pengujian sensitivitas terhadap *sulfamethoxazole-trimethoprim* menggunakan metode *Kirby Bauer*. Analisis data secara deskriptif, univariat dan bivariat.

Kucing yang ditemukan di klinik hewan sebagian besar berjenis ras atau *mix* domestik. Hasil dari isolasi dan identifikasi ditemukan 51 (31,9%) isolat *Staphylococcus* sp. dari 160 spesimen yang diteliti. Pengujian sensitivitas dari 51 isolat menunjukkan bahwa ditemukan 10 (19,6%) isolat resistan, 2 (3,9%) isolat intermediet, dan 39 (76,5%) isolat sensitif terhadap *sulfamethoxazole-trimethoprim*. Analisis faktor risiko menunjukkan terdapat asosiasi keberadaan *Staphylococcus* sp. pada kucing yaitu interaksi spesifik seperti menggendong (X^2 : 6,029; P: 0,014; OR: 0,242) dan memandikan (X^2 : 5,740; P: 0,017; OR: 0,474), sedangkan terdapat asosiasi yang signifikan antara jumlah hewan terhadap resistansi antibiotik.

Kata kunci: Faktor risiko, kucing, resistansi, *Staphylococcus* sp., *sulfamethoxazole-trimethoprim*.

ABSTRACT

A CROSS-SECTIONAL STUDY OF *Staphylococcus* sp. RESISTANCE TO SULFAMETHOXAZOLE-TRIMETHOPRIM in FELINE PATIENTS AT VETERINARY CLINICS IN YOGYAKARTA AND SLEMAN

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Antimicrobial Resistance (AMR) poses a serious challenge to public health today. Resistance can spread from animals to humans or from animal to animal through food, water, or the environment. Sulfamethoxazole-trimethoprim is a broad-spectrum antibiotic often used for treatment in animal clinics. This study aimed to identify the level of *Staphylococcus* sp. resistance to sulfamethoxazole-trimethoprim and to determine risk factors for the presence of *Staphylococcus* sp. and sulfamethoxazole-trimethoprim resistance in cats, which are popular companion animals for many people and frequently interact with humans.

A total of 160 rectal swab specimens were collected from cats in 10 clinics in Yogyakarta and 22 clinics in Sleman using a cross-sectional study approach. Simple random sampling was employed in this research. Isolation and identification of *Staphylococcus* sp. utilized Mannitol Salt Agar (MSA) medium, followed by Gram staining, catalase test, coagulase test, sugar (mannitol) test, and Voges-Proskauer (VP) test. Isolates confirmed as *Staphylococcus* sp. proceeded to sensitivity testing against sulfamethoxazole-trimethoprim using the Kirby Bauer method. Data analysis included descriptive, univariate, and bivariate methods.

The majority of cats found in animal clinics were either purebred or mixed domestic breeds. From the isolation and identification, 51 (31.9%) *Staphylococcus* sp. isolates were found from the 160 specimens examined. Sensitivity testing of the 51 isolates showed that 10 (19.6%) isolates were resistant, 2 (3.9%) isolates were intermediate, and 39 (76.5%) isolates were sensitive to sulfamethoxazole-trimethoprim. Risk factor analysis revealed a significant association between the presence of *Staphylococcus* sp. in cats and specific interactions such as carrying (X²: 6.029; P: 0.014; OR: 0.242) and bathing (X²: 5.740; P: 0.017; OR: 0.474). Additionally, there was a significant association between the number of animals and antibiotic resistance.

Key words: Cat, resistance, risk factor, *Staphylococcus* sp., sulfamethoxazole-trimethoprim.