

ABSTRACT

IDENTIFICATION OF BACTERIA ON DERMATITIS CAT SKIN AND EVALUATION OF RESISTANCE OF *Staphylococcus sp.* TOWARDS SULFAMETHOXAZOLE

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Antimicrobial resistance is amongst the primary concern in the field of veterinary medicine worldwide. This research was conducted to isolate and identify the bacteria on dermatitis cat's skin and to evaluate the resistance of *Staphylococcus sp.* towards the given antibiotic treatment with Sulfamethoxazole (SXT). A total of 18 skin lesion samples were inoculated into Mannitol Salt Agar (MSA) and incubated at 37°C. After incubated for 24 hours, it was found that 17 out of 18 samples showed positive growth on the media. The colonies found on the media MSA were then inoculated onto Blood Agar Plate (BAP), Gram stain test, and Coagulase Test and the bacteria was identified as *Staphylococcus sp.* The bacteria identified as *Staphylococcus sp.* was inoculated onto Brain Heart Infusion broth (BHI) and the colony was streaked onto Mueller-Hinton agar plate over the entire agar surface and left to dry. Sulfamethoxazole disc was dispensed onto the surface of the agar and incubated for 37°C for 24 hours. The result after incubation showed that all 17 of the samples showed inhibition ring around Sulfamethoxazole (SXT) disc ranging from 21 - 31 mm. This research concludes that 17 of the *Staphylococcus sp.* are susceptible to Sulfamethoxazole (SXT).

Key words: dermatitis, resistance, *Staphylococcus sp.*, sulfamethoxazole.

ABSTRAK

IDENTIFIKASI BAKTERI PENYEBAB DERMATITIS PADA KULIT KUCING DAN EVALUASI RESISTENSI *Staphylococcus* sp. TERHADAP SULFAMETHOXAZOLE

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Resistensi terhadap antimikroba merupakan masalah yang penting dalam dunia Kedokteran Hewan. Penelitian ini dilakukan untuk mengisolasi dan mengidentifikasi bakteri penyebab dermatitis pada sample kulit kucing dan mengevaluasi terjadinya resistensi *Staphylococcus* sp. Sulfamethoxazole (SXT). Sebanyak 18 sampel lesi kulit diinokulasi pada media *Mannitol Salt Agar* (MSA) dan diinkubasi pada 37°C. Setelah diinkubasi selama 24 jam, ditemukan 17 dari 18 sampel menunjukkan pertumbuhan pada media tersebut. Koloni dari media MSA diinokulasi pada media *Blood Agar Plate* (BAP), Gram stain Test, dan *Coagulase Test* dan bakteri diidentifikasi *Staphylococcus* sp. Bakteri yang diidentifikasi *Staphylococcus* sp. diinokulasi pada media *Brain Heart Infusion Broth* (BHI) dan koloni dipupuk pada *Mueller-Hinton agar plate* pada seluruh agar dan dibiarkan kering. Cakram Sulfamethoxazole (SXT) ditaruh di atas agar dan diinkubasi pada 37°C selama 24 jam. Hasil inkubasi menunjukkan bahwa ada zona inhibisi dari 21 - 31 mm pada cakram Sulfamethoxazole (SXT). Hasil penelitian menunjukkan bahwa 17 sampel *Staphylococcus* sp. rentan terhadap Sulfamethoxazole (SXT).

Kata kunci: dermatitis, resistensi, *Staphylococcus* sp., sulfamethoxazole.