

## ABSTRACT

### ISOLATION AND IDENTIFICATION OF *Staphylococcus sp.* ISOLATED FROM DERMATITIS OF CAT AND EVALUATION OF ITS RESISTANCE TOWARDS ENROFLOXACIN (ENR)

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Dermatitis is one of the most common disease in small animal practice and often accompanied by bacterial infection, frequently by *Staphylococcus sp.* The use of antibiotic is essential to counter the staphylococcal infection. However, antibiotic resistance of *Staphylococcus sp.* is emerging and it has become a major problem in Veterinary Medicine. The purpose of this research is to isolate and identify the *Staphylococcus sp.* isolated from dermatitis of cats and examine its resistance towards Enroflaxacin.

A total of 18 lesion swabs of cats suffering from dermatitis were collected. The samples were inoculated on brain heart infusion broth, mannitol salt agar and Gram stain was performed. The samples that showed positive results were inoculated on blood agar and coagulase test was conducted. Antibiotic susceptibility test was carried out using the method of Kirby-Bauer on Mueller-Hinton Agar plate.

Results from 18 samples showed that 17 samples (94.44%) were *Staphylococcus sp.* and 1 sample (5.55%) did not show growth on mannitol salt agar. From 17 samples, 8 samples (47.06%) showed hemolytic patterns on blood agar and 6 samples (35.29%) were coagulase positive *Staphylococcus sp.* In antibiotic susceptibility test, 16 (94.12%) samples were susceptible and 1 sample (5.88%) was intermediately susceptible to Enrofloxacin. It can be concluded that 94.44% of the samples were *Staphylococcus sp.* and 94.12% of the samples were susceptible to Enrofloxacin.

**Key Words:** Dermatitis, bacterial infection, *Staphylococcus sp.*, antibiotic resistance, Enrofloxacin.

## ABSTRAK

### ISOLASI DAN IDENTIFIKASI *Staphylococcus sp.* DIISOLASI DARI DERMATITIS KUCING DAN EVALUASI RESISTANSI TERHADAP ENROFLOXACIN (ENR)

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Dermatitis merupakan salah satu penyakit yang sering terdapat dalam bidang praktek hewan kecil dan sering diikuti dengan infeksi oleh bakteri, seringkali *Staphylococcus sp.* Penggunaan antibiotik dibutuhkan untuk mengatasi infeksi tersebut. Meskipun demikian, resistansi *Staphylococcus sp.* terhadap antibiotik semakin berkembang dan merupakan masalah yang penting dalam dunia Kedokteran Hewan. Tujuan penelitian ini adalah untuk melakukan isolasi dan identifikasi *Staphylococcus sp.* diisolasi dari dermatitis pada kucing dan mengevaluasi resistansi terhadap Enroflaxacin.

Sebanyak 18 sampel pada lesi kulit telah diambil dari kucing yang menderita dermatitis. Sampel tersebut diinokulasi pada mannitol salt agar dan Gram stain telah dilakukan. Sampel yang menunjukkan hasil positif telah diinokulasi pada plat agar darah dan uji koagulase telah dilakukan. *Antibiotic susceptibility test* telah dilakukan dengan menggunakan metode *Kirby-Bauer* pada *Mueller-Hinton Agar* plat.

Hasil penelitian menunjukkan bahwa 17 sampel (94.44%) adalah *Staphylococcus sp.* dan 1 sampel (5.55%) tidak didapatkan pertumbuhan pada mannitol salt agar. Dari 17 sampel tersebut, 8 sampel (47.06%) menunjukkan hemolisis pada plat agar darah dan 6 sampel (35.29%) positif dalam uji koagulase. *Antibiotic susceptibility test* didapatkan 16 sampel (94.12%) sensitif dan 1 sampel (5.88%) sensitif secara intermediat terhadap Enrofloxacin. Kesimpulannya, 94.44% sampel telah diidentifikasi sebagai *Staphylococcus sp.* dan 94.12% sampel sensitif terhadap Enrofloxacin.

**Kata kunci:** Dermatitis, infeksi oleh bakteri, *Staphylococcus sp.*, resistensi terhadap antibiotik, Enrofloxacin.