

## ABSTRAK

**KAJIAN LINTAS SEKSIONAL RESISTANSI *Salmonella* spp. DAN *Staphylococcus aureus* TERHADAP STREPTOMISIN PADA ANJING DI SHELTER KABUPATEN SLEMAN**  
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Penanganan penyakit pada anjing dengan menggunakan antibiotik yang tidak rasional berpotensi mengakibatkan terjadinya resistansi antibiotik pada bakteri. Penelitian bakteri-bakteri resistan pada anjing perlu dilakukan. Penelitian ini bertujuan untuk mengetahui tingkat resistansi *Salmonella* spp. dan *Staphylococcus aureus* terhadap Streptomisin di 3 shelter anjing yang terdapat di Sleman, Daerah Istimewa Yogyakarta.

Penelitian ini menggunakan kajian lintas sektoral dengan jumlah sampel sebanyak 147 ekor anjing yang diambil dengan *random* sederhana. Spesimen swab rektum dari setiap anjing dimasukkan ke dalam tabung berisi *Buffered Peptone Water* (BPW). Isolasi dan identifikasi *Salmonella* spp. dilakukan dengan menggunakan *Xylose Lysine Deoxycholate* (XLD), *Triple Sugar Iron Agar* (TSIA), dan *Lysine Iron Agar* (LIA). Isolasi dan identifikasi *Staphylococcus aureus* menggunakan *Mannitol Salt Agar* (MSA), Uji Katalase, Uji Koagulase, Uji Voges Proskauer (VP), dan Uji Gula. Pewarnaan Gram juga dilakukan untuk semua isolat. Uji sensitivitas bakteri terhadap streptomisin dilakukan dengan menggunakan *Mueller-Hinton Agar* (MHA) dengan metode Kirby-Bauer. Data dianalisis secara deskriptif, univariat dan bivariat.

Hasil penelitian ini memperoleh 2 isolat *Salmonella* spp. dan 28 isolat *Staphylococcus aureus* dari 147 sampel. Sebanyak 1 isolat *Salmonella* spp. dan 1 isolat *Staphylococcus aureus* resisten terhadap streptomisin. Faktor risiko yang diperhatikan adalah asal hewan, pemberian antibiotik, dan gejala yang ditunjukkan selama 6 bulan terakhir. 50% *Salmonella* spp. dan 3,58% *Staphylococcus aureus* resisten terhadap streptomisin. Faktor risiko tidak menunjukkan adanya asosiasi antara resistansi *Salmonella* spp. dan *Staphylococcus aureus* terhadap streptomisin.

Kata kunci: anjing, *Salmonella* spp., shelter, *Staphylococcus aureus*, streptomisin, resistansi

## ABSTRACT

### **CROSS-SECTIONAL STUDY OF RESISTANCE OF *Salmonella* spp. AND *Staphylococcus aureus* TO STREPTOMYCIN IN DOGS IN SHELTERS IN SLEMAN DISTRICT**

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Disease management in dogs using irrational antibiotics has the potential to result in antibiotic resistance in bacteria. Research on resistant bacteria in dogs needs to be done. This study aims to determine the level of resistance of *Salmonella* spp. and *Staphylococcus aureus* to Streptomycin in 3 dog shelters located in Sleman, Yogyakarta Special Region.

This study used a cross-sectional study with a total sample size of 147 dogs taken by simple random. Rectal swab specimens from each dog were placed into tubes containing *Buffered Peptone Water* (BPW). Isolation and identification of *Salmonella* spp. was performed using *Xylose Lysine Deoxycholate* (XLD), *Triple Sugar Iron Agar* (TSIA), and *Lysine Iron Agar* (LIA). Isolation and identification of *Staphylococcus aureus* using *Mannitol Salt Agar* (MSA), Catalase Test, Coagulase Test, Voges Proskauer (VP) Test, and Sugar Test. Gram staining was also performed for all isolates. Bacterial sensitivity test to streptomycin was performed using *Mueller-Hinton Agar* (MHA) with Kirby-Bauer method. Data were analyzed descriptively, univariate and bivariate.

The results of this study obtained 2 isolates of *Salmonella* spp. and 28 isolates of *Staphylococcus aureus* from 147 samples. A total of 1 *Salmonella* spp. isolate and 1 *Staphylococcus aureus* isolate were resistant to streptomycin. Risk factors considered were animal origin, antibiotic administration, and symptoms exhibited during the last 6 months. 50% of *Salmonella* spp. and 3.58% of *Staphylococcus aureus* were resistant to streptomycin. Risk factors showed no association between the resistance of *Salmonella* spp. and *Staphylococcus aureus* to streptomycin.

**Keywords:** dog, *Salmonella* spp., shelter, *Staphylococcus aureus*, streptomycin, resistance