

ABSTRAK

KAJIAN LINTAS SEKSIONAL KEBERADAAN *Staphylococcus* sp. DAN SENSITIVITASNYA TERHADAP ANTIBIOTIK PADA SAPI POTONG DI KABUPATEN KULON PROGO PROVINSI DAERAH ISTIMEWA YOGYAKARTA

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Sapi potong merupakan salah satu komoditas ternak yang penting dalam penyediaan protein hewani bagi masyarakat. Penelitian ini dilaksanakan di Kabupaten Kulon Progo Daerah Istimewa Yogyakarta sebagai salah satu daerah dengan komoditas sapi potong sebagai hewan ternak yang dominan. Salah satu bakteri yang dapat ditemukan pada sapi potong adalah *Staphylococcus* sp., yaitu bakteri oportunistik yang dapat menunjukkan variasi kepekaan terhadap antibiotik dan menyebabkan penyakit mastitis. Informasi mengenai profil sensitivitas *Staphylococcus* sp. terhadap antibiotik penting sebagai dasar penggunaan antibiotik yang tepat dan rasional pada sapi potong. Penelitian ini bertujuan untuk mengetahui tingkat keberadaan *Staphylococcus* sp. serta sensitivitasnya terhadap antibiotik pada sapi potong di Kabupaten Kulon Progo, Daerah Istimewa Yogyakarta. Penelitian ini menggunakan kajian lintas seksional dengan sampel berupa swab rektal dan feses dari 118 ekor sapi potong yang berasal dari 54 peternakan. Isolasi dan identifikasi *Staphylococcus* sp. dilakukan menggunakan media *Mannitol Salt Agar* (MSA), pewarnaan Gram, uji katalase, uji indole, uji *Methyl Red-Voges Proskauer* (MR-VP), dan uji koagulase. Uji sensitivitas antibiotik dilakukan dengan metode difusi cakram *Kirby-Bauer* terhadap *doxycycline*, *ciprofloxacin*, *penicillin*, *ampicillin*, *sulfamethoxazole-trimethoprim*, dan *streptomycin*. Data dianalisis secara deskriptif. Penelitian ini melibatkan 118 ekor sapi potong dari 54 peternakan yang tersebar di 5 Kecamatan yaitu Kecamatan Sentolo, Kecamatan Pengasih, Kecamatan Wates, Kecamatan Panjatan, dan Kecamatan Lendah. Sejumlah 17 dari 118 sampel swab rektal (14,41%) teridentifikasi positif *Staphylococcus* sp. Hasil uji sensitivitas dari 17 isolat yang berasal dari sampel swab rektal menunjukkan 13 isolat teridentifikasi sensitif terhadap *ciprofloxacin* (76,5%), 7 isolat sensitif terhadap *penicillin G* (41,2%), 16 isolat sensitif terhadap *doxycycline* (94,12%), 15 isolat sensitif terhadap *sulfamethoxazole-trimethoprim* (88,3%), dan 10 isolat sensitif terhadap *ampicillin* (58,8%). Antibiotik dengan jumlah isolat sensitif tertinggi adalah *doxycycline*, yaitu 16 isolat (94,12%). Hasil ini menunjukkan bahwa *Staphylococcus* sp. masih memiliki kepekaan yang baik terhadap antibiotik yang diuji.

Kata Kunci: sapi potong, sensitivitas antibiotik, swab rektal, Kulon Progo, *Staphylococcus* sp.

ABSTRACT

CROSS-SECTIONAL STUDY OF THE PRESENCE OF *Staphylococcus* sp. AND ITS ANTIBIOTIC SENSITIVITY IN BEEF CATTLE IN KULON PROGO REGENCY, SPECIAL REGION OF YOGYAKARTA PROVINCE

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Beef cattle are one of the most important livestock commodities in providing animal protein for the community. This study was conducted in Kulon Progo Regency, Special Region of Yogyakarta, as one of the regions where beef cattle constitute a dominant livestock commodity. One of the bacteria commonly found in beef cattle is *Staphylococcus* sp., an opportunistic bacterium that may exhibit varying levels of sensitivity to antibiotics and one of the cause of mastitis. Information regarding the antibiotic sensitivity profile of *Staphylococcus* sp. is essential as a basis for the appropriate and rational use of antibiotics in beef cattle management. This study aimed to determine the prevalence of *Staphylococcus* sp. and its antibiotic sensitivity to antibiotics in beef cattle in Kulon Progo Regency, Special Region of Yogyakarta. This research employed a cross-sectional study design using rectal swab and fecal samples collected from 118 beef cattle originating from 54 farms. Isolation and identification of *Staphylococcus* sp. were carried out using Mannitol Salt Agar (MSA), Gram staining, catalase test, indole test, Methyl Red–Voges Proskauer (MR–VP) test, and coagulase test. Antibiotic sensitivity testing was performed using the Kirby–Bauer disk diffusion method against doxycycline, ciprofloxacin, penicillin, ampicillin, sulfamethoxazole-trimethoprim, and streptomycin. The data obtained were analyzed descriptively. This study involved 118 beef cattle from 54 farms distributed across five districts, namely Sentolo, Pengasih, Wates, Panjatan, and Lendah Districts. A total of 17 out of 118 rectal swab samples (14.41%) were positively identified as *Staphylococcus* sp. The antibiotic sensitivity test results from the 17 isolates obtained from rectal swab samples showed that 13 isolates were sensitive to ciprofloxacin (76.5%), 7 isolates were sensitive to penicillin G (41.2%), 16 isolates were sensitive to doxycycline (94.12%), 15 isolates were sensitive to sulfamethoxazole-trimethoprim (88.3%), and 10 isolates were sensitive to ampicillin (58.8%). Doxycycline was the antibiotic with the highest number of sensitive isolates, with 16 isolates classified as sensitive (94.12%). These findings indicate that *Staphylococcus* sp. still demonstrates good sensitivity to the antibiotics tested.

Keywords: beef cattle, antibiotic sensitivity, rectal swab, Kulon Progo, *Staphylococcus* sp.