

ABSTRAK

UJI RESISTENSI ANTIBIOTIK KOLISTIN DAN SIPIROFLOKSASIN TERHADAP BAKTERI PADA SALURAN PENCERNAAN EMBRIO AYAM

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Antibiotik sering digunakan untuk mengobati penyakit bakterial pada peternakan unggas. Penggunaan antibiotik dengan dosis dan jangka waktu tidak tepat dapat menyebabkan resistensi bakteri. Kolistin dan siprofloksasin tergolong antibiotik yang sangat penting dalam kedokteran hewan dan penggunaannya sangat dibatasi. Penelitian ini bertujuan untuk mengetahui profil resistensi antibiotik kolistin dan siprofloksasin terhadap bakteri pada saluran pencernaan embrio ayam.

Sampel yang digunakan ialah telur ayam berembrio umur 19 hari sebanyak 25 butir. Embrio ayam dinekropsi dan sampel usus diambil, kemudian dikultur pada kaldu *Brain Heart Infusion* (BHI). Kultur bakteri yang tumbuh diuji resistensi melalui metode *Kirby-Bauer* terhadap disk kolistin 10 µg dan siprofloksasin 5 µg pada media *Mueller-Hinton Agar* (MHA). Diameter zona hambat diukur dan dibandingkan dengan *Clinical Laboratory Standards Institute* (CLSI) 2013. Kultur bakteri ditanam pada *MacConkey Agar* (MCA) untuk identifikasi koloni bakteri dan morfologinya diidentifikasi melalui pengecatan Gram. Data penelitian dianalisis secara deskriptif.

Bakteri yang resisten terhadap kolistin mencapai 47,06%, intermediet 23,53%, dan sensitif 29,41%, sedangkan bakteri yang resisten terhadap siprofloksasin mencapai 17,65% dan sensitif 82,35%. Kesimpulan dari penelitian ini yaitu bakteri mengalami resistensi antibiotik sejak dalam embrio ayam dengan persentase 47,06% terhadap kolistin dan 17,65% terhadap siprofloksasin.

Kata Kunci: Antibiotik, bakteri saluran cerna ayam, resistensi antibiotik, kolistin, siprofloksasin.

ABSTRACT

COLISTIN AND CIPROFLOXACIN RESISTANCE TEST AGAINST BACTERIA IN THE DIGESTIVE TRACT OF CHICKEN EMBRYO

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Antibiotics are often used to treat bacterial diseases in poultry. Using antibiotics without paying attention to the dose and time can cause bacterial resistance. Colistin and ciprofloxacin classified as crucial antibiotics in veterinary medicine and its use is strictly limited. This study aimed to determine the antibiotic resistance profile of colistin and ciprofloxacin against bacteria in the digestive tract of chicken embryos.

This study used 25 embryonic chicken eggs aged 19 days. Chicken embryos were necropsied, and the intestinal samples were collected and cultured in Brain Heart Infusion broth. Bacterial cultures were tested for resistance using the Kirby-Bauer method. 10 µg colistin and 5 µg ciprofloxacin disks are placed on Mueller-Hinton Agar. The diameter of the inhibition zone was measured and compared with the Clinical Laboratory Standards Institute 2013. Bacteria were cultured on MacConkey Agar for bacterial identification and its morphology was identified by Gram staining. The data were analyzed descriptively.

Bacterial resistance to colistin reached 47,06%, 23,53% was intermediate, and 29,41% was sensitive, while bacterial resistance to ciprofloxacin reached 17,65% and 82,35% was sensitive. This study concludes that bacteria have been resistant to antibiotics since the embryonic stage, with 47,06% resistant to colistin and 17,65% resistant to ciprofloxacin.

Keywords: Antibiotic, bacteria in chicken digestive tract, antibiotic resistance, colistin, ciprofloxacin.