عنوان مقاله:

The Antibiogram Profile of Commensal Escherichia coli of the Gastrointestinal Tract of Apparently Healthy Ostriches and Diseased Chickens with Colibacillosis

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خلاصه مقاله:

The present study aimed to assess the antibiotic resistance of commensal Escherichia coli (E. coli) of the healthy ostriches (Eho) and the diseased chickens with colibacillosis (Epc) and to determine if the odds that Eho (test group) shows antimicrobial resistance different from the Epc (reference group). In this descriptive cross-sectional study, we calculated the odd ratio (OR) after determination of the resistance and multidrug resistance (MDR) rates, MDR pattern, and the antibiotype of Eho (n= ۴۹) and Epc (n= ۳۹) against ampicillin, amoxicillin, gentamicin, amikacin, oxytetracycline, sultrim, lincospectin, and chloramphenicol. All of the Eho (۱۰۰%) were resistant to ampicillin, gentamicin, and amoxicillin (P < ۰.۰۵) and ۱۰۰% of Epc were resistant to ampicillin (P < ۰.۰۵). Thirty point two percent of Eho and ۸۷.۲% of Epc isolates were MDR. MDR Eho (P < ۰.۰۵) and MDR Epc (P < ۰.۰۵) showed two (P۱ and P۳) and four (P۱-۴) MDR patterns, respectively. Eho and Epc showed seven (P < ۰.۰۵) and ۲۱ (P > ۰.۰۵) antibiotypes, respectively. The odds of Eho being resistant to ampicillin, amoxicillin, and gentamicin (P > ۰.۰۵) and P۱ MDR pattern (P < ۰.۰۵) and three (P > ۰.۰۵) and one (P < ۰.۰۵) antibiotypes were higher in Eho compared to those in Epc. Our findings emphasized the development of antibiotic resistance in commensal E. coli and indicated that not only one antibiotic may not treat the disease in chickens, but antibiotic susceptibility testing is also of great necessity for veterinary health. The possible contamination of meat, carcasses, and eggs of apparently healthy ostriches by their fecal MDR E. coli threatens human health.

کلمات کلیدی:

Iran, Poultry, Odd ratio, Microorganism, Antibiotic resistance