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Title:
*study on Ostrich meat Entrobactericeal contamination in zabol region
and determination of antibiotal resistance*

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Abstract

In this study, we investigated the rate of Enterobacteriaceae infection and their antibiotic resistance in ostrich meat distributed in Zabol region. We obtained 100 samples of ostrich meat from ostrich meat supply centers and transferred them to the Health and Quality Control Laboratory of the Faculty of Veterinary Medicine, University of Zabol. The samples were weighed at 25 g and then added to 225 ml of lactose broth or peptone water. It was then added to EMB, Selenite Cystine Broth and Tetrathionate broth culture medium to isolate *Escherichia coli* and to search for *Salmonella* bacteria. We then added it to SS agar and bismuth sulfite agar and brilliant green agar media and cultured linearly. Also, for *Escherichia coli* confirmation tests, colonies with metallic green polish were transferred to Simon Citrate, TSI, SIM and finally to MR-VP culture medium. For *Salmonella* confirmation tests, colonies grown in SS agar, brilliant green agar, and bismuth sulfite agar were deep and shallow cultured on TSI and LIA culture media. Finally, the susceptibility of the obtained isolates to the following antibiotics was assessed: nalidixic acid (NA), ampicillin (AM), Amikacin (AN), Imipenem (IMP), Ciprofloxacin (CP), Gentamicin (GM), Ceftriaxone (CRO), Tetracycline (TE), Amoxiclav (AMC), and Sulfamethoxazole (SXT). The results of this study showed that out of 100 meat samples studied in this study, 45 cases (45% with a 95% confidence interval from 35% to 56%) were infected with *Salmonella* and 53 cases (53% with a 95% confidence interval from 43% to 63%) were infected with *Escherichia coli*. *Salmonella* was most susceptible to SXT, AMC and TE isolates and the most resistant was related to AM, CP, and AN antibiotic.

Keywords: Ostrich meat, Enterobacteriaceae, Zabol, Antibiotic resistance.