

Abstract:

E. coli is one of the most common pathogens in poultry. The mortality rate from the disease is 5% to 50%. These bacteria as pathogens in humans, especially in patients with immune deficiency, beta-lactam is introduced and widely used to treat infections caused by these microorganisms. *Escherichia coli* is a common cause of urinary tract infection which accounted for about 90 percent of the infections. In recent years, the prevalence of extended-spectrum beta-lactamase (ESBLs) among clinical isolates of *E. coli* from humans and the mechanism of resistance is taken into consideration in the treatment of infectious diseases has resulted in failure. Most ESBL could be on the similarity of the amino acid sequence into two groups: TEM, CTX-M that by the genes *bla*_{CTX-M} and *bla*_{TEM} are coded. In the present study, 115 samples positive for *E. coli* include 55 samples from patients and 60 cloacal sample questions from the turkeys were collected, in city of Zabol, Iran. In this study, the results of antibiogram of *Escherichia coli* strains isolated from samples of Turkey in terms of resistance, maximum resistance to ampicillin, resistance to norfloxacin and gentamicin were the lowest and *Escherichia coli* strains isolated from clinical samples more resistant to ampicillin and gentamicin resistance was lowest. Isolation of DNA from all samples was performed by boiling method and the existence of *bla*_{CTX-M} and *bla*_{TEM} genes were evaluated by PCR method. The results showed that the genes *bla*_{CTX-M} and *bla*_{TEM} in Hospital samples were 49.09 percent and 32.72 percent and in Turkey samples were 23.33 percent and 16.66 percent respectively. In this study *bla*_{CTX-M} gene in clinical samples and the samples of the turkey was more than of the gene *bla*_{TEM}. Therefore, there is a significant percentage ESBLs according to antibiogram test is necessary before taking antibiotics.



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**Prevalence of *bla*_{TEM}, *bla*_{CTX-M} genes of
E.coli isolated from human cases in
comparison with turkey isolates**

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