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## Drug resistance of avian *E. coli* isolated from colibacillosis in Kordestan, Iran

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The aim of this study was determination of drug resistance patterns of avian *E. coli* isolate from cases of colibacillosis in Kordestan, Iran. Isolates of *E. coli* from pericarditis lesions (10 samples from each 20 farms) were isolated from broilers. The isolates were tested for their susceptibility to a panel of 12 antibacterial agents using the (Kirby-bauer) disc diffusion method. The drug susceptibility test showed that all isolates were resistant to tetracycline and erythromycin. More than 70% of the isolates were resistant to flumequine, doxycycline, colistin, sulfadiazinet, enrofloxacin, lincospectin, difloxacin, cousamix and trimethoprim. There were 18 drug resistance groups among 200 *E. coli* isolates. 79% of isolates belonged to more than one group, whereas the rest (21% of isolates) each isolate was belonged only to one group. The results of this study confirmed that high resistance of isolates to antibacterial agents mostly caused by non-controlled description can be dangerous for poultry industry as well as public health.

**Keywords:** *Escherichia coli*, colibacillosis, Drug resistance, poultry industry, Kordestan

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## Preventive effect of garlic on diabetes mellitus induced complications

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**Introduction:** In this study we investigated the preventive effect of garlic juice on diabetes mellitus induced complications. **Materials and methods:** Forty male rats (230-270g) were divided into 5 groups as follows: 1- Group normal (N) 2- Group Normal + Garlic (N+G). 3- Diabetic (D) received STZ, 60mg/kg BW /i.p. 4- Group diabetic + garlic before (D + Gb) received garlic juice for 3 weeks before STZ injection. 5- Group diabetic + garlic after (D + Ga) three days after STZ injection, they received garlic juice for 3 weeks. Garlic juice was given by gavage (1ml/100g BW). **Results:** Reduction in body weight was significant in Group D compared to Group N. There was a significant increase in body weight in Group D + Gb compared to Group D. Increase in urinary volume was significant in Group D compared to Group N, and there was a significant reduction in Group D + Gb compared to group D, but there was no difference between Groups D with D + Ga. For water intake, Group D showed a significant increase compared to Group N and there was a significant decrease in Groups D + Gb and D + Ga compared to Group D. Renal weight didn't show any significant difference in all groups. **Discussion:** We showed that STZ injection caused a decrease in body weight and an increase in polyuria. This study has revealed that garlic juice has both protective and preventive effects in diabetic rats.

**Keywords:** Diabetes, Garlic, Kidney, Rats