

# **Identification and Antibiogram of Bacterial Agents Isolated Infected Yolk Sac of Broiler Chickens in Rasht, Guilan**

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**Introduction:** Yolk sac infection is one of the most important diseases in broiler chickens in the first week, with losses normally 5-15%, causing economic losses to the poultry industry. as there is no data on its bacterial agents and antibiotic susceptibility in Guilan province, we decided to investigate bacterial agents infected yolk sac of broiler chickens in Rasht city. **Materials and methods:** For this research, 144 samples of 1-7 day old chickens with yolk sac infection were collected 16 broiler farms in Rasht city and sent to the bacteriology lab. By Gram staining, primary and specific culture and then biochemical tests, bacterial agents were detected and antibiotic susceptibility testing was performed on them. **Results and Discussion:** Totally, 112 out of 144 samples (77.7%) responded to bacterial culture. The prevalence contamination to one bacterium was 37.5%, two bacteria 37.5% and three bacteria and more, 25% and E.coli was observed alone, in 22 samples of 40 samples with one bacterium contaminations. E.coli was found in 68 of 112 positive samples, which contained more than half of the samples (60.7%). Thus, the first hypothesis of the study was confirmed by the binomial test (ratio) and the significance level less than 0.05 (0.029), which was considered to be the main cause of the disease. After E.coli, Staphylococcus with the prevalence of 30 cases (26.8%) and Enterobacter with the prevalence of 29 (25.9%) were in the second and third ranks of the most common bacteria. The Antibigram results were almost similar for all bacteria in culture. Most bacteria showed resistance to Sultrim, Chlortetracycline and Erythromycin, and showed a high sensitivity to Lincospectin, Colistin and Fosfomycin. **Conclusion:** Due to the economic losses of this disease, frequent monitoring of microbial agents, especially in hatching farms, avoids of the

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**unessential use of antibiotics and more research at provincial and national levels is recommended.**

**Keywords : Chickens , Rasht city**

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