

عنوان مقاله:

Molecular typing of avian Escherichia coli isolates by enterobacterial repetitive intergenic consensus (sequences polymerase chain reaction) (ERIC-PCR)

محل انتشار:

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خلاصه مقاله:

BACKGROUND: Colibacillosis is one of the most economically important diseases of poultry worldwide. **OBJECTIVES:** This study was conducted to examine the clonal relatedness and typing of 95 avian Escherichia coli isolates by ERIC-PCR. **METHODS:** Sixty-three E. coli isolates from two common manifestations of colibacillosis (yolk sac infection and colisepticemia) and 32 isolates from feces of apparently healthy broilers were provided. The PCR amplification reactions were performed in duplicate for all isolates. **RESULTS:** The molecular weight of the observed bands on gel electrophoresis ranged from 232 bp to 2690 bp. Sixty-five fingerprinting patterns were observed among 95 isolates on the basis of molecular weights and the number of bands. The numbers of 20, 22, and 23 fingerprinting patterns were found among isolates from yolk sac infection, colisepticemia, and feces, respectively. Among different fingerprinting patterns, the number of produced bands differed from 2 to 11. No identical pattern was observed among isolates of three sources. Isolates showing similar patterns in each source group belonged to a single farm. However, a few isolates that had been isolated from different farms also showed similar fingerprinting patterns. **CONCLUSIONS:** In conclusion, this study showed a high degree of polymorphism among E. coli isolates originated from different poultry sources when the respective bacterial genomes were analyzed by the ERIC-PCR and that no specific genotypes were responsible for different manifestations of colibacillosis

کلمات کلیدی:

Escherichia coli, colibacillosis, broilers, ERIC-PCR, Iran

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