



Isolation of and characterization of *E. coli* O157/H7 from Common Carp Fish (*Cyprinus carpio*) in Baghdad governorate

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Abstract

This study intended to isolate and characterize *E. coli* O157: H7 strains from Common carp fish (*Cyprinus carpio*) reared in fresh water in Baghdad governorate, in

addition, to determine their antibiotic resistant profiles. Fish samples were collected from different local fish markets in Baghdad. The samples were cultured on Macconkey and modified Eosin Methylene Blue (MEMB) media. Additionally, chromogenic media was used for purification of *E. coli* O157/H7. The diagnosis of the bacteria depended on the rate of growth, colonies morphology, biochemical tests, and staining by Gram stain. Latex test was also used to determine the isolated bacteria serotypes depending on the agglutination nature of bacteria. *E. coli* O157: H7 were isolated from 30 (60 %) out of 50 samples. Moreover, all isolated bacteria were positively identified as *E. coli* O157: H7 strains and revealed typical results in biochemical tests and a positive result in latex test. Susceptibility profiles to seven antibiotics were determined, and variations in antibiotic sensitivity gathered. In conclusion, this study revealed the isolation of *E. coli* O157: H7 from Common carp fish. The author recommends to take precaution from *Cyprinus carpio* because it can act as a source of infection for pathogenic *E. coli* O157: H7 strain and can cause dangerous food poisoning in humans, hemorrhagic septicemia in fish and gastro-extraintestinal infection in fish and human.

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