INCIDENCE AND CHARACTERIZATION OF E. COLI O157:H7 ISOLATED FROM MINCED BEEF, CHICKEN MEATS AND HUMAN STOOLS IN ASSIUT CITY

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Abstract:

Meat and meat products have been implicated in outbreaks of Escherichia coli O157:H7 in most parts of the world. A total of 75 samples including 25 samples each of frozen chicken breast fillets, frozen chicken legs and minced frozen beef were randomly collected from retail supermarkets in Assiut, Egypt. In addition, 28 stool cultures collected from hospitalized children admitted in Assiut Pediatric University Hospital with history of diarrhea or fever. All were screened for the presence of E. coli especially E. coli O157:H7. E. coli was detected in 7 (28%), 9 (36%), 7 (28%) and 2 (7.14%) of chicken frozen fillet, chicken frozen leg, minced frozen beef and children stool samples, respectively. Two strains of E. coli O157:H7 were isolated one from each of chicken frozen fillet and chicken frozen leg samples, while it could not be detected in any of minced frozen beef or children stool samples. The two isolated strains were tested for antibiotic resistance. They were found to be resistant to seven antimicrobial agents (cephalexin, doxycycline, erythromycin, nalidixic acid, penicillin G, polymyxin B and rifampicin). The public health significance of this pathogen and consumer's safety were discussed.

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