

Prevalence of *E. coli* O157: H7 Isolated from Patients with Acute Gastroenteritis

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Abstract

Background and Objective: Diarrheal diseases may occur in all age groups, worldwide. *Escherichia coli* (*E. coli* O157: H7) is one of the most important bacterial agents causing this disease. The purpose of this study was to assess the prevalence of diarrhea in patients with acute diarrhea caused by this bacterium.

Material and Methods: In this study, 214 stool samples were collected from acute diarrheic patients in hospitals and clinical laboratories of Malayer city, Iran. The samples were cultured in rich, differentiation, specific and selective medium. To detect *E. coli* O157: H7, rapid detection method and antisera were used.

Results: In 12.15% of the samples, lactose fermentation was observed and *E. coli* was affirmed. The results of lactose positive samples showed that 6.54% were negative- β -Glucuronidases and were confirmed as *E. coli* O157. Finally, by using O157: H7 antisera, 1.87% of 14 samples that were negative- β -Glucuronidases were asserted as *E. coli* O157.

Conclusion: based on the results, the prevalence of *E. coli* O157: H7 is higher in children and elders than the others. Food and water play a significant role in transferring *E. coli*.

Keywords: Prevalence, *E. coli* O157: H7, Gastroenteritis, Patients