

## Evaluation of Enteropathogenic *Escherichia coli* (EPEC) and Enteraggregative *E.coli* (EAEC) Prevalence in Raw Vegetable Samples in Tehran

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**Background & Objectives:** The food contamination by enteric pathogens is considered as a particularly important reason of diarrhea diseases. EPEC strains have been recognized as a common cause of watery diarrhea in children. Furthermore, the strains of EAEC are an emerging category of diarrheagenic *E. coli* that can impair with growth and malnutrition in children. In Iran, there not much information about prevalence of diarrheagenic *E.coli* strains in food. The aim of this study was to evaluate the frequency of EPEC and EAEC in raw vegetables in Tehran.

**Methods:** 50 vegetable samples were collected from Tehran. The samples were stomached in EC-Broth medium containing cefixim and were inoculated at MC conkey agar selective medium. DNA was extracted by simple boiling methods. PCR was carried out using 5 pairs of primers targeting stx1, stx2, eae and pCVD432 genes. *E. coli* strains that carried eae gene and were negative for stx were considered as EPEC. The positive strains in PCR for pCVD432 were considered as EAEC.

**Results:** By screening of 50 vegetable samples, the EPEC strains were detected in 4 samples (8%) and screening of 36 vegetable samples showed that 2 samples (5.5%) contained the strains of EAEC.

**Conclusion:** Our results confirm that raw vegetables recovered in Tehran may be a source for gastrointestinal infections by EPEC and EAEC.

**Keywords:** *Escherichia coli*; EPEC; EAEC; Frequency