

عنوان مقاله:

Molecular detection of diffusely adherent Escherichia coli (DAEC), isolated from pediatric diarrhea referring to Shahid (Dastgheib children Hospital, Shiraz (2019-2018

محل انتشار:

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تعداد صفحات اصل مقاله: 1

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خلاصه مقاله:

Introduction: The pathogenicity and clinical pertinence of diffusely adhering Escherichia coli expressing the Afa/Dr adhesins (Afa/Dr DAEC) in diarrheagenic infections (UTIs). Based on the expression of adhesins, two groups of DAEC strains were identified. Afa/Dr DAEC and AIDA-I DAEC. Afa/Dr family encompasses fimbrial (F1845, Dr) and afimbrial (Afa) adhesins. Afa-I, Afa-II, Ala-III, Ala-V, Afa-VII, Afa-VIII and Dr-2 afimbrial adhesins, as well as Dr and F1845 fimbrial adhesins, constitute the Afa/Dr family. The goals of this study were isolation of E. coli from patients with diarrhea in Shiraz (Iran), and detection of DAEC pathotypes in isolates by PCR. Methodology: Three hundred stool specimens of diarrhea patients were collected from Shahid Dastgheib children Hospital in Shiraz, Fars, Iran. Diarrheagenic E. coli strains were isolated by standard biochemical analysis. Conventional PCR were used to detect the Afa/Dr family in the DAEC strains isolated. Results: A total of 300 samples from patients with acute diarrhea were analyzed. Among 190 isolates were been detected as E.coli, 14/190(7.3%) of the E. coli strains were identified as DAEC strains. Afa/Dr family prevalence was afaE-1 10/14(71.4%), afaE-3 4/14 (28.5%), afaE-5 3/14 (21.4%), daa E 3/14(21.4%) respectively. aida/aah and afaE-2 genes were not detected in any isolates. Conclusion: Our analysis indicated that DAEC strains may be considered as potential pathogens in Shiraz, southern Iran. Further, although the prevalence of DAEC is low, prevention of infection caused by this bacterium among diarrheagenic patients is crucial. Therefore, further characterization of the different virulence aspects of DAEC strains is required

کلمات کلیدی:

Diarrheagenic Escherichia coli (DEC), acute diarrhea, DAEC

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