The Prevalence of Enteroaggregative *Escherichia coli* in cases of Diarrhea in Gorgan, IRAN

Bagheri H, (Msc)
Microbiology Department, Islamic Azad University of Lahijan

Ghaemi E ,(PhD)
Associate Professor of Microbiology, Golestan University of Medical Sciences

Aslani, MM. (PhD)
Associate Professor of Microbiology, Pasture institute of Iran

Amir Mozafar N. (PhD)
Associate Professor of Microbiology,IRAN University of Medical Sciences

Dadgar, T. (Msc)
Microbiology Department, Golestan University of Medical Sciences

Livani S,(BSc)
Microbiology Department, Golestan University of Medical Sciences

Corresponding Author:
Bagheri H

E.mail: chico_fo@yahoo.com

Abstract

Background and objectives: Diarrhea is one of the main cases of morbidity and mortality among children in developing countries. Enteroaggregative Escherichia coli (EAggEC) is an emerging diarrheal pathogen that has been associated characteristically with persistent diarrhea among infants, particularly in the developing Counties. Therefore, we decided to study the prevalence of enteroaggregative strain in cases of Diarrhea in Gorgan by PCR method.

Material and Methods: This descriptive study was carried out on 455 subjects suffered from Diarrhea in Gorgan during one year (2005-6). At first, the samples were cultivated on the MacConkey agar and EMB agar media, Then all colony Suspected to E.coli were chosen and their DNA extracted by phenol chloroform method. The result was obtained by the selected primer, PCR method.

Results: of 455 samples, Twenty cases (4/4%) including men (12) and woman (8) are positive for EAggEC, 85% of sufferers are under 5 years old (45.8% of them are under one year old). The Prevalence of this gene in Summer , Autumn ,Winter ,Spring are 5.3% , 4.2% , 4.1% and 1.8% ,respectively.

Conclusion: Based on the prevalence of Enteroaggregative Escherichia coli (EAggEC) in Diarrheagenic cases in Gorgan (4.4%), we do recommend using molecular methods, which are reliable and less expensive than classic methods, in detecting of microorganisms**.**

Key words: Entroaggregative Escherichia coli, Diarrhea, PCR, Gorgan.