

The frequency of Anti- Cytotoxin associated Gene A (CagA) antibody in Golestan province of Iran

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Abstract

Background and Objective: Helicobacter pylori (H.pylori) with positive Cytotoxin associated Gene A (CagA) have higher potential for pathogenesis. Cytotoxin associated Gene A (CagA) accelerate the pathogenicity of bacteria due to cytotoxin production stimulation. The aim of this study was to determine the prevalence of the anti-CagA antibody among H. pylori infected persons in Golestan province-North of Iran.

Materials and Methods: This descriptive study was carried out on 676 H. pylori positive subjects in Golestan province, northern Iran during 2008. Anti CagA antibody were determined in H.pylori positive subjects. Data analyzed by SPSS-16 software and chi-square test.

Results: Prevalence of anti CagA in Helicobacter pylori infected cases was 57.7% (390 cases: 179 males and 211 females) (95% CI: 53.9-61.4). According to age the highest and lowest cases of anti CagA antibody were seen in, 15-24 (63.4%) and under 5 years old (26.3%). The level of anti CagA antibody in Sistani ethnicity group (67.2%) was more than other ethnic group. Anti CagA antibody in Rural area was more than urban regions. Sero prevalence of anti CagA antibody was highest in Minudasht town (78%), located in East of province in comparison with Bandar Gaz (44%) in west of province.

Conclusion: This study showed the prevalence of CagA positive Helicobacter pylori strains in this region is similar to other regions of Iran, Asia and Europe and higher than African population.

Keywords: Prevalency, CagA, Helicobacter pylori , Iran

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