

Detection of serum concentration of IL-12 in H.pylori infected people comparing to healthy one

Abstract

Introduction: The prevalence ratio of H. pylori infection in developed and developing countries is 30% and 80% respectively. Dominant Immune response in H. pylori infection is Th1 and the most manifest characteristic response of Th1 is producing cytokines such as IF- γ and IL-12. The IL-12, as an inflammatory cytokine in protecting against infections, plays a basic role in development of infection and clinical symptoms severity.

Material and Methods: Serum samples of 61 persons who had referred to Imam Khomeini Hospital investigated in term of IgM serology of anti- helicobacter by ELISA, then serum concentration of IL-12 of these persons were determined by ELISA and finally data were analyzed using Excel and SPSS softwares.

Results: In term of IgM against *Helicobacter pylori*, the prevalence H.pylori infection is 54.1% while 14.8% of samples are detected as equivocal. The average concentration of IL-12 in serum of H.pylori positive, equivocal and negative groups were 8.44 ± 3.41 pg/ml, 6.5 ± 1.45 pg/ml and 5.69 ± 1.18 pg/ml respectively. Statistical analysis showed a significant differences in IL-12 concentration between H.pylori positive and negative groups ($p=0.04$).

Conclusion: Taking the high prevalence of H. pylori infection in our country, especially in Ardebil province and the its role in digestive malignancies, and importance of IL-12 in protecting against pathogenic agents, any possible relationships between IL-12 and H.pylori infection can be used in early diagnosis and preventing the malignancy.

Keywords: *Interleukin-12, Helicobacter pylori, ELISA, Ardebil.*