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### IgG immune responses to different proteins of Helicobacter Pylori as defined by immunoblot assay

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#### Abstract:

Helicobacter pylori (H.pylori) is an etiologic factor for chronic gastritis and peptic ulcers. Serological testing of H.pylori infection is common in Iran, as other parts of the world. There are geographical variations in the humoral immune response to various H. pylori strains in different parts of the world. We studied the immunogenic proteins of H.pylori by means of an Immunoblot assay with antigens of H.pylori strains isolated in Iran. Sera of 64 patients suffering from dyspepsia were analyzed to determine antibodies which were good marker of infection and the antibody patterns associated with peptic ulcer. 54 out of 64 dyspeptic patients were infected by H. pylori based on positive culture or positive results of both rapid urease test and direct examination. 14 out of fifty-four had peptic ulcers and the rest were categorized as patients with non-ulcer dyspepsia. Some of them had multiple erosions in the gut or deodenum. Twenty – two major bands were identified by immunoblot. Of these, IgG antibodies against 10 proteins, and they produced immunoreactive bands at 14, 16, 22, 26, 32, 32, 44, 87, 92, 120 Kda. Antibody patterns were not identical in the patients. The presence of at least one band at 14, 16, 22, 26, 32, 35Kda was the best marker of infection (sensitivity, 90% and specificity, 80%) Major serological cross reactions were found at moderate molecular weight bands (50, 52, 54, 60, 66 KDa). The presence of at least one band at 14, 16, 22, 26, 32, 35Kda was the best marker of infection (sensitivity, 90% and specificity, 80%). Major serological crossreactions were found at moderate molecular weight bands (50, 52, 54, 60, 66 KDa). The presence of antibodies to 120 Kda protein (Cag A and 87 Kda Protein (Vac A) were not associated with the presence of peptic ulcers. These were in contradiction to results obtained across Europe and U.S but in agreement with Asian studies. However the presence of at least one band at either 32 or 35 Kda was more frequent in the sera of peptic ulcer patients and non-ulcer dyspeptic patients with erosions (P<0.05). These results could be applicable to design new serological kits. In Iran and could also be used to identify new putative virulence factors for H. pylori

#### Keywords:

[Immunoblot](#) . [Peptic ulcer](#) . [Nonulcer dyspepsia](#) . [IgG response](#)

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