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### Designing an ELISA Technique for H.pylori Antibody Detection Using Water Extracted Antigens

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#### Abstract:

H.pylori infection stimulates immune responses. These responses at the mucosal level are predominantly of IgA types, while circulating antibodies against this microorganism are predominantly IgG classes. IgM antibodies are rarely found and seem to be non-specific for this bacterium. In this research, water extract antigen, from three strains of H.pylori (isolated from patients with gastritis, duodenal ulcer and normal human) was investigated for the detection of serum IgG antibodies against H.pylori by an indirect ELISA technique. Antibody titers against H.pylori were measured in 72 patients of whom 64 cases were H.pylori positive and 8 cases were H.pylori negative (confirmed by culture and urease tests). In this test, those titers that were more than 1/6400 indicated the rising of IgG titers and serum positive, being in testee, and the titers, which were equal or less than 1/6400 indicated the serum negative, being in individuals. Our ELISA results indicated that between 64 H.pylori positive individuals, 61 cases were serum positive and between 8 H.pylori negative patients, 5 individuals were serum negative; thus, specificity, sensitivity, positive predictive value (PPV) and negative predictive value (NPV) of the test were, 62.5%, 95.31%, 95.31%, 62.5%, respectively. The high level of sensitivity is because of using 3 different strains for preparing of antigens. But the reasons of low specificity are probably using of semi purified antigen.

#### Keywords:

[Serological diagnosis](#) . [Antibody Detection](#)

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