Helicobacter pylori IgG Antibodies in Iraqi Uremic patients in association with Pepsinogens and Human Leukocyte Antigens class I & II

A THESIS
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Summary

*Helicobacter pylori* infection has a word wide distribution, it colonize more than half of the world population and its the main cause of gastritis peptic ulceration, gastric adeno-carcinoma and gastric lymphoma. Recent evidence suggest that some host derived and environmental factors are significant in determining clinical outcome.

The present study is designed to evaluate the effect of blood urea and serum creatinine level on gastric enzymes and *H. pylori* infection in patients with end stage renal failure before and after kidney transplantation and also to detect the association between the Human Leukocyte antigens (HLA) class I and class II antigens with *H. pylori* infection.

The study included thirty five patients with end stage chronic renal failure and thirty five healthy individual as a control group. The biochemical analysis of blood urea and serum creatinine were applied for all patients before and after kidney transplantation and for control group.

*H. pylori* IgG and gastric enzymes pepsinogen I and II were achieved by Enzyem Link Immuno-sorbent Assay (ELISA) also before and after transplantation for all study group.

HLA class I were performed by using microlymphocytotoxicity test while class II were performed by polymerase chain reaction- sequence specific oligonuclotides (PCR-SSO) techniques for all investigated individuals.

The collected result predict decrease in urea significantly from 181.889 mg/dl pre-operation to 63.182 mg/dl while the creatinine level were decreased significantly from 8.297 mg/dl pre-operation to 1.764 mg/dl in post operation. The evaluated *H. pylori* IgG level in positive patients were increased significantly 77.115 EIU pre-operation to 80.027 EIU in post operation while the negative patients were 13.529 EIU pre-operation to 17.663 EIU post operation. The pepsinogen I level for positive patients were elevated from 45.825 mg/l pre operation to 214 mg/l. However, reverse pattern were observed for the negative patients from 197.369 mg/l pre operation to 176 mg/l post operation. The pepsinogen II levels were changed 247.125 mg/l pre operation to 33.364 mg/l post operation in positive *H. pylori* patients, while in negative *H. pylori* patient were changed from 30.539 mg/l to 17.338mg/l.

The HLA class I analysis appear that A2, A3,A24,B4, B35, and C7 are more frequent in positive *H. pylori* IgG while A11. A28, B8, B15, B49, and C3 are more frequent in negative *H. pylori* IgG. The HLA class II shows that DR3, DR11, DQ3 and DQ7 more frequent in positive *H. pylori* IgG, and DR6& DQ8 are more frequent in negative *H. pylori* IgG but with no statistical significant.

Concluded that in uremia in end stage chronic renal failure may affect the incidence of *H. pylori* infection. The pepsinogen I and pepsinogen II are effective...
markers in *H.pylori* infection and the evaluation of PGI/II ratio is very useful in such conditions. Certain HLA class I and class II alleles may represent genetic predisposition for developing *H.pylori* infection, while some others may show protective roles.
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