Summary and Recommendations

The aim of this study is to review pediatric patients who are evaluated by upper endoscopy to determine the role of H pylori infection in children with some gastrointestinal presentations and to correlate the presence of infection with age and with serum gastrin concentrations.

This study was conducted on 36 patients 23 males and 13 females with a mean age of 5.77±17 years. All of them presented with gastrointestinal symptoms in the form of repeated abdominal pain (RAP), recurrent vomiting or haematemsis as main presentations. Eighteen age and sex matched control subjects were also studied and they had no gastrointestinal presentation. They were 11 males and 7 females with a mean age of 65± 1.72 years. Out of 36 patients 18 were in the preschool age with a mean age 1.9±1.3 years and 18 were in the school age with a mean age of 9.64±2.24 years. 11 children of the control subjects were in the school age with a mean age of 9.3± 1.9 years.

All the patients and control subjects were subjected to:

1- Full history and clinical examination.

2- Every patient (patients only) was subjected to upper gastrointestinal endoscopy and the endoscopic findings were correlated to the presence or absence of H pylori infection, age , and to serum gastrin level.

3 Diagnosis of exposure to Helicobacter pylori infection was done through detection of serum immunoglobulin against H pylori by Orion Diagnostica's pyloriset Dry which is a latex agglutination test for the rapid detection of H pylori in serum.

4 Also measurment of fasting serum gastrin level for all cases and control subjects was done by Double Antibody Gastrin which is an ^{125}I radioimmunoassay (RIA).

H pylori colonization was significantly higher in patients compared to asymptomatic control being 47% versus5% for both of them respectively.

There was no significant difference in H pylori infection in relation to sex, out of 13 females 6 were H pylori seropositive with a percentage of 46.15 compared to 11 H pylori seropositive males out of 23 males with a percentage of 47.83%.

This study showed that, there is no significant difference in H pylori prevalence rate occurs with age, probably because most subjects are infected at early age of childhood.

The present study confirmed that H pylori affects circulating gastrin concentration. The mean serum gastrin was significantly higher in H pylori seropositive cases than that of H pylori seronegative cases (72.72±38.03 ng/L versus 38.03±22.68 ng/L) for both groups respectively.

The mean serum gastrin was significantly higher in seropositive cases of children in school age group than that of seropositive cases of children in preschool age being 73.04±38.66

ng/L versus 56.89±36.80ng/L for both school age and preschool age children respectively.

H pylori seropositive cases had a significant higher incidence of hypergastrinemia compared with H pylori seonegative cases (35.29 versus 21.05 for both H pylori seropositive and H pylori seronegative cases respectively.

Recurrent abdominal pain was the only gastrointestinal presentation among the other GIT presentation to have significant high incidence of hypergastrinemia compared with asymptomatic subjects 116.16±146.84 ng/L versus 71.21±33.92 ng/L for both groups respectively.

Whether H pylori infection causes hypergastrinemia and the latter causes recurrent abdominal pain or RAP induces hypergastrinemia in H pylori seropositive cases this needs more study.

All the patients underwent oesophagogastrodudenoscopy and the most frequent endoscopic findings in our patients was the oesophgitis 66.6% followed by gastritis 19.4%, hiatal hernia 19.4%, incompetent cardia 16.6%, varicose veins 0.05% and lastly GER & gastric ulcers 0.02% for each.

Cases presented with recurrent vomiting and/ or haematemsis had a higher incidence of H pylori infection than that presented with RAP. Being 63.64% and 53.33% versus 20% for recurrent vomiting, haematemesis and RAP respectively.