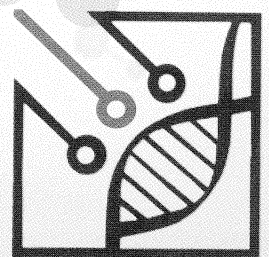


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GASTROPANEL ASSAY: A NON INVASIVE DIAGNOSTIC METHOD FOR DIAGNOSIS OF *Helicobacter pylori* INFECTION AND DISEASE SEVERITY

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Introduction:

Gastropanel is a novel, non-invasive screening method that has been introduced as a first-line for diagnosis of stomach mucosal health. The Gastropanel assay measures 4 stomach-specific biomarkers, Gastrin-17, Pepsinogen I and II and *Helicobacter pylori* IgG, and gives information on both structure and function of the stomach mucosa.

Objectives:

This study aimed to assess the usefulness Gastropanel in diagnosis of *H. pylori* and disease severity in a Sri Lankan population.

Methods:

Blood specimens and gastric biopsy specimens were collected from dyspeptic patients attending routine upper-gastrointestinal endoscopy at a tertiary care hospital. Antral biopsies were histologically graded according to updated Sydney system to determine the disease severity. Serum Gastrin-17, Pepsinogen I and II were measured using Gastropanel assay (Biohit Oyj, Finland). *H. pylori* infection was diagnosed using histology, Gastropanel *H. pylori*-IgG (Biohit Oyj, Finland) and *H. pylori*-IgG (Bioactiva Diagnostica, Germany). Expression of serum biomarkers between *H. pylori*-positive and negative groups were compared using the Mann Whitney U test.

Results:

Among 66 dyspeptic patients, *H. pylori* infection was diagnosed in 22 patients by histology. The expression of G-17, PG I and II did not show a significant difference between histologically confirmed *H. pylori*-positive patients and *H. pylori*-negative patients or the histological severity. Gastropanel diagnosed atrophic gastritis in one *H. pylori*-positive patient who had mild antral gastritis by histology. Twenty one patients were categorized as active *H. pylori* infection by Gastropanel. Gastropanel diagnosed 15/44 *H. pylori*-negative patients, as having healthy mucosa and of them 14 had mild antral gastritis, while one patient had moderate to severe antral gastritis by histology. Four patients could not be categorized using Gastropanel.

Conclusions:

The results of histology and Gastropanel assay were not comparable in this population from Sri Lanka. Larger study for validation of cut off values for the local population is needed.

Key words: Gastropanel, *Helicobacter pylori*, Sri Lanka

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