Letter to the Editor

Detection of Acute Helicobacter Pylori Infection Using Serologicl Antibody Assay

Madam, Helicobacter pylori infection is seen in over 70% patients presenting to the endoscopist for various upper G.I. lesions. The diagnosis of H. pylori by invasive methods include histology, culture and the CLO test while non-invasive tests include serology, stool and urea breath test .Generally it is recommended that H. pylori should be checked by non-invasive methods to avoid re-infection and re-treatments.[1]

Assure H. pylori rapid test is based on serology which can detect both acute current infection and exposure in one go.[2-4] The present study was done to see the pickup rate of acute infection and to compare it with standard CLO test.

Sixty-two patients (age range 15-70 years; 42 males, 20 females) were included in the study. After an endoscopic examination an antral biopsy was taken which was embedded in the locally produced CLO gel. The test was read as positive if magenta color was observed within 15 minutes and was negative if no color change occurred. Blood was rechecked for H pylori antibodies using Assure H. Pylori rapid test kit from gene lab diagnostics. The test was run on serum and when the sample diffused across the membrane and touched the pink indicator, two drops of buffer were added to the oval wall and the tab marked Hp was pulled. After a 15 minutes waiting period the test was read as positive if all three red lines were visible. Line A was control, line B for current infection and C for chronic exposure.

The endoscopic diagnosis included 20 cases of mixed lesions, 16 duodenal ulcers, 12 gastric erosions, 9 had normal endoscopy and the remaining 3 and 2 were of gastric and esophageal ulcer respectively.

Helicobacter pylori infection was present in 49 (79%) patients as determined by CLO test, while 42 patients (68%) were positive on serology.

Both tests were positive in 36 patients and negative in seven. H. Pylori positive on CLO and negative on serology were 13, whereas 6 cases were negative on CLO and positive on serology. The sensitivity and specificity of serology were 74% and 54% respectively, the positive and negative predictive values of the serology test were 86% and 65% respectively.

Overall the ages of the patients were not statistically significant but more females (80%) were found positive on serology as compared to males (70.5%). The cost of locally prepared CLO test is around Rs 50 while that of serology is Rs 300. For CLO test endoscopy and biopsy is a must which adds Rs 1000-5000 depending upon the facility where the test is performed.

The present study showed an almost parallel diagnostic yield of the serology (68%) with the CLO test (79%). Our previous studies have shown better results with CLO test when compared with stool test, culture and other type of serological test.[5]

The use of serology in the detection of Helicobacter Pylori provides an easy, non-invasive and inexpensive means of diagnosis. As the current infection marker (CIM) antigen it helps to differentiate between acute and exposed (chronic) cases helping in early detection and treatment of acute cases leaving exposed cases for follow-up.

Moreover patients are treated repeatedly on a positive H. Pylori serology without checking whether it is a current infection or a chronic exposure. We suggest that assure rapid test should be used as the initial test for the diagnosis of the infection and treatment. If required endoscopy should be reserved for cases who either need confirmation of some associated lesion or in whom symptoms persist despite treatment.

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