

## Application of *Helicobacter pylori* antigen test to evaluate gastric mucosa specimens

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### ABSTRACT

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**Purpose:** To investigate, whether the test documenting the presence of *Helicobacter pylori* (*H. pylori*) antigens in the gastric mucosa may be used as diagnostic test.

**Materials and methods:** Mucosal specimens taken from eighty-three patients during gastroscopic examination were subjected to rapid urease test (CLO test), histology, and *H. pylori* culture. The same biopsy specimens that had been evaluated in the CLO test or collected into the transport medium for bacterial culture were used to detect *H. pylori* antigens. An amplified immunoassay for the detection of *H. pylori* antigens in stool was used for gastric mucosa specimens. The sensitivity and specificity of the *H. pylori* antigen test were evaluated in relation to the results of each verifying test (CLO test, histology, culture) separately and to all 3 tests analysed together.

**Results:** The sensitivity and specificity of the *H. pylori* antigen test in relation to the CLO test, histological examination, and *H. pylori* culture were 85.4% and 90.5%, 76.1% and 83.4%, and 90.7% and 90.0% for specimens taken for the CLO test and 90.0% and 82.0%, 78.0% and 81.0%, and 93.0% and 88.0% for specimens taken for bacterial culture, respectively. The sensitivity and specificity of the antigen test in relation to all 3 verifying tests analysed together were 91.3% and 97.3% for specimens taken for the CLO test, and 91.7% and 97.1% for specimens taken for bacterial culture, respectively.

**Conclusions:** *H. pylori* antigen test in gastric mucosa specimens may be a sufficiently reliable source of information about stomach infection.

**Key words:** *Helicobacter pylori* antigens, immunoassay, gastric mucosa

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