

Diagnostic values of helicobacter pylori stool antigen immunochromatographic method compared to histopathology in dyspepsia patient

Type: Article

Abstract:

Background: Helicobacter pylori infection often leads to complaints of dyspepsia. Enforcement of infection still relies on invasive histopathological methods through endoscopic and biopsy procedures. Helicobacter pylori stool antigen (HpSA) is a method of rapid immunochromatography that is not invasive and relatively inexpensive. We determined the diagnostic value of HpSA examination of immunochromatographic methods compared to histopathological examination as the gold standard for diagnosing H. pylori infection. Methods: HpSA examination was used to identify H. pylori infection by its ability to detect H. pylori antigen from stool of dyspeptic patients. Its diagnostic values including sensitivity, specificity, positive predictive value and negative predictive value was determined by comparing them to those of histopathologic examination as gold standard. Results: From 93 dyspeptic patients, pre-test probability of H. pylori infection using histopathologic examination showed result as much as 17.2%. The sensitivity, specificity, positive predictive value and negative predictive value of HpSA immunochromatographic methods were 38%, 94%, 55% and 88%, respectively. A positive probability ratio of 5.78 increased the post-test probability for H. pylori infection by 37.8%. A negative probability ratio of 0.68 increased the post-test probability of not being infected with H. pylori by 5.4%. Conclusion: The diagnostic value of HpSA examination of immunochromatographic methods was not good enough to exclude or diagnose H. pylori infection in dyspeptic patients.

Author	a) Avisiena A., b) Nusi I.A., c) Maimunah U., d) Rahaju A.S., e) Setiawan P.B., f) Purbayu H., g) Widodo B., h) Miftahussurur M., i) Vidyani A., j) Thamrin H.
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