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**Key Words**

Diff-Quik stain

*Helicobacter pylori*

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## Histological Diagnosis of *Helicobacter pylori* by a Combination of Diff-Quik and Hematoxylin and Eosin Stains

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**ABSTRACT**

Many different special staining methods have been used to demonstrate *Helicobacter pylori*, but some of them are not readily available in general practice. The Diff-Quik stain is a quick, easy, and reproducible special staining method for histological detection of *H. pylori*. The aim of this study was to evaluate the usefulness of combined hematoxylin and eosin (H&E) and Diff-Quik stains in the histological diagnosis of *H. pylori*.

Ninety-five patients were enrolled in this study. All patients received a <sup>13</sup>C-urea breath test (<sup>13</sup>C-UBT) and endoscopic examination. During endoscopy, 4 biopsies were taken from the gastric antrum and corpus and subjected to a rapid urease test and histological examination for *H. pylori*. All gastric specimens were routinely stained with H&E. If *H. pylori* was not found in the routine H&E-stained sections, the pathologist prepared additional slides stained with Diff-Quik to identify the organisms.

Among the 95 patients, 27 patients had positive results in both the <sup>13</sup>C-UBT and rapid urease test, and *H. pylori* was identified in H&E sections. Seven patients had positive results in both the <sup>13</sup>C-UBT and rapid urease test, but *H. pylori* was not found on the H&E-stained slides. Additional Diff-Quik-stained slides were prepared for these specimens, and *H. pylori* was identified in 3 of 7 cases previously missed with H&E-stained slides.

Diff-Quik stain is superior to H&E stain for the detection of *H. pylori*, and it is cheaper than other special stains. Furthermore, it is easy to obtain, and the procedure is simple. We suggest that H&E stain with accompanying Diff-Quik stain may be an ideal combination for both morphologic evaluation and detection of *H. pylori* histologically in general practice. (N. Taipei J. Med. 2000; 2:257-260)

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**INTRODUCTION**

The association between *Helicobacter pylori* (*H.*

*pylori*) and the increased risk of duodenal ulcer and antral gastritis has been firmly established.<sup>1</sup> A variety of non-invasive and invasive methods has been devel-

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