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**Detection of Helicobacter pylori in Gastric Biopsy by Urease Test, Culture and PCR**

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**ABSTRACT**

Helicobacter pylori (H. pylori) infection causes various gastrointestinal diseases including gastritis, peptic ulcer and gastric carcinoma. Numerous detection methods have been used for the presence of H. pylori in gastric biopsy, however, each of them has certain advantages and disadvantages. Both sensitivity and specificity are required for the accurate diagnosis of H. pylori infection. This study therefore examined for H. pylori using three different methods in 40 samples of gastric biopsies collected from Universiti Teknologi MARA (UiTM), Sungai Buloh, Selangor. Three methods were used, urease test of the gastric biopsies, bacteria isolation culture and molecular identification by polymerase chain reaction (PCR). It was obtained that 43% (17/40) were positive by urease test, 13% (5/40) by culture, and 70% (28/40) by PCR of the 40 gastric biopsies sample. Colour changes from yellow to pink indicated positive of urease test. Whilst the bacteria growth culture were small, circular and smooth colonies. Samples were tested for presence of H. pylori using specific primers by PCR and were identified as H. pylori. Among the three methods used, PCR showed highest sensitivity and specificity in H. pylori detection. Hence, it can be the most useful diagnosis of H. pylori especially for species identification and confirmation.