Motility indole urease as an alternative diagnostic method for identifying helicobacter pylory infection

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Abstrak

Background: The prevalence of Helicobacter pylori (H. pylori) infection in the world is quite high, especially in developing countries. Usually the patient shows no specific symptoms and chronic gastritis therefore becomes chronically infected The complication of the injéction is the development of peptic ulcer; which is a predisposing factor for gastric carcinoma. Early diagnosis is an important step to avoid these complications by providing immediate accurate therapy.
Methods: In this study the CLO, MIU (Motility Indole Urease) tests and culture were conducted on 131 biopsy samples of the stomach antrum mucous tissue taken from chronic dyspepsia patients from several hospitals in Jakarta. In the CLO test, biopsy tissue was put in a small well agar to be incubated at room temperature. In the MIU test the biopsy tissue sample was submerged in the small MlU tube agar with a depth of approximately 2/3 rds from the surface, and then incubated at room temperature. Another piece of biopsy tissue was cultured micro-aerophylicalty The CLO and MlU tests are considered positive if the color changes from yellow to red and are considered negative if there is no color change within 24 hours.
Results: Compared to culture, the CLO test demonstrated 38% sensitivity; 96% specificity, 94% positive predictive value and 52% negative predictive value, whereas the results of the MIU test against culture method showed 76% sensitivity 89% specificity 88% positive predictive value, and 78% negative predictive value.
Conclusion: The MIU test that showed high sensitivity and specyficity and thus could be further developed as an alternative diagnostic method for H. pylori infection.