Prevalence and microbiological diagnosis of *H. pylori* infection and its antibiotic resistance pattern in patients with acid-peptic disorders

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*Helicobacter pylori* play major roles in the pathogenesis of duodenal ulcer diseases, chronic antral gastritis, Gastric ulcer diseases and, possibly Gastric cancer. Intend of the study was to find out the prevalence of *H. pylori* infection with reliable diagnostic method along with its antibiotic resistance pattern. From 855 symptomatic patients, four antral biopsies were collected in a sterile BHI broth and were processed for Rapid urease test, Gram's staining, Culture and histopathological staining (Warthin-Starry stain and Giemsa) and serum sample were tested for *H. pylori* IgG and IgA antibody by using ELISA. Antimicrobial susceptibility testing of 80 clinical isolates was performed by Kirby-Bauer disk diffusion method. Prevalence rate of *H. pylori* infection was found 14.6% (125/855), infection was found highest in gastritis patients. Sensitivity of serology (98.8%) and Gram's staining (96.8%) was highest, while Rapid Urease test, Culture and Gram's staining showed highest specificity of 99.9%, 100% and 98.5% respectively. Sensitivity of IgG-ELISA was better than IgA-ELISA. Primary antimicrobial resistance of *H. pylori* to metronidazole was very high (83.8%), followed by amoxicillin (72.5%), clarithromycin (58.8%) and tetracycline (53.8%). The association of Gram staining and rapid urease tests best for quick evaluation of the infectious status of patient. Our results also recommend the need of sensitivity profile regionally and periodically before the general use of an eradication schedule.

Biography

Himani B Pandya has completed her Ph.D. (medical microbiology) from Pramukh Swami Medical College, Karamsad affiliated to Sardar Patel University. She worked as a Lecturer and Head of department (MLT) for 11 years at Shree P.M. Patel college of Paramedical science and technology, Anand, Gujarat. She has guided 10 M.sc. MLT students for their dissertation work. She is presently working as a Tutor in S.B.K.S medical college, Gujarat in Microbiology Department. She has published 8 research papers in reputed national and international journal. She got First prize for oral presentation on VI annual conference of Indian Association of Medical microbiologist- Gujarat chapter 2011.

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