Prevalence of specific \textit{H. pylori} genotypes \textit{cagA}, \textit{vacA}, \textit{iceA}, \textit{ureC} in Central Gujarat and its clinical relevance in the patients with acid-peptic diseases

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Distinct virulence factors of \textit{H. pylori} have been described: the vacuolating cytotoxin (\textit{vacA}), the cytotoxin associated gene (\textit{cagA}), the induced by contact with epithelium factor Antigen (\textit{iceA} gene) and the urease C gene (\textit{ureC}). This cross sectional study aimed to investigate the prevalence of the \textit{vacA}, \textit{cagA}, \textit{iceA} and \textit{ureC} genotypes of \textit{H. pylori} isolates. 71 biopsy samples were subjected to PCR. DNA isolation from biopsy was done by using "QIAamp DNA mini kit" from QIAGEN. Isolated genomic DNAs were processed for PCR. Out of the 71 biopsies screened, 22(31\%) samples were positive for \textit{H. pylori} by PCR. PCR results showed high proportion of \textit{cagA} positive (23.94\%) followed ure C genes (5.63\%) and \textit{vac A}(1.4\%). Prevalence of \textit{cagA} was higher in age group 21-40 yrs. (52.94\%), followed by 41-60 yrs. (35.29\%) and 61-80 yrs. (11.76\%). prevalence of \textit{cagA}was higher in females (10/17), compare to males (7/17), statistically significant (p value-0.042 < 0.05). Out of 17 \textit{cagA}+ stains 9 were causing Gastritis (52.94\%), 5 causing reflux esophagitis (29.41\%) and 3 were causing duodenal ulcer (17.64\%). We have 0\% prevalence of \textit{iceA} gene, conversely we had 3 peptic ulcer patients and all the three were \textit{cagA} positive but \textit{ice A}negative. We conclude that Prevalence of \textit{cagA} genotype is higher in the Anand district compare to other genotypes. We also conclude that \textit{iceA} genotype is not a useful marker of virulence in this population and that the progression from gastritis to peptic ulcer must require some other genes.

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.

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