PREVALENCE OF HELICOBACTER PYLORI

Vandana Berry, Vidya Sagar

1. Professor and Head, Department of Microbiology, Christian Medical College and Hospital, Ludhiana, Punjab.
2. Tutor, Department of Microbiology, Christian Medical College and Hospital, Ludhiana, Punjab.

CORRESPONDING AUTHOR

Dr. Vandana Berry, Prof & Head,
Department of Microbiology, Christian Medical College,
Ludhiana, Punjab-141008,

E-mail: vandana_berry@yahoo.com,

Ph: 91 094637 52244.

ABSTRACT: This study was done at Christian Medical College and Hospital, Ludhiana for the period of 5 years from January 2006 to December 2010 in the Department of Microbiology. A total of 306 endoscopic gastric biopsy specimens were collected from the suspected cases of the peptic ulcer and were subjected to rapid urease test for *Helicobacter pylori*. This test has high sensitivity and cent percent specificity. The prevalence was determined to be 09.48% and male: female ratio was determined to be 68.97:31.03.

KEYWORDS: *Helicobacter pylori* Endoscopy, Rapid Urease Test

INTRODUCTION: *Helicobacter pylori* is a common cause of peptic ulcer. It is gram negative, microaerophilic and motile organism with multiple polar flagella. It associated with 90% of duodenal ulcer and 80% of gastric ulcer¹. *H. pylori* is also associated with gastric adenocarcinoma. *H. pylori* infection is mainly acquired through the faeco oral route. Water has been shown to be a source of *H. pylori* infection by Kleinet al². A study from Bombay reported that *H. pylori* is present in the dental plaques of 98% patients with dyspepsia³.

This study was conducted in the Department of Microbiology, Christian Medical College and Hospital, Ludhiana, Punjab over a period of 5 years from January 2006 to December 2010. During this period a total of 306 endoscopic gastric specimens, collected from patients suspected to have gastric ulcer, were subjected to rapid urease test. The medium used for this test was urea broth which contains urea, phenol red indicator and distilled water. The broth was sterilized by steaming at 100°C for 20 minutes. The medium was distributed in the quantity of 1.5ml to 2.0 ml in aliquots. Each biopsy specimen was inoculated and incubated at 37 °C for one and a half hour. The change in the colour of the broth from pale yellow to deep pink was taken as positive test.

PREVALENCE OF HELICOBACTER PYLORI

Year	No. of Samples	Positive Samples	Percentage	No. of Males	No. of Females
2006	113	14	12.39	10	04
2007	86	06	6.98	04	02
2008	76	01	1.31	00	01
2009	20	00	00	00	00
2010	71	08	11.26	06	02
Total	306	29	09.48	20(68.97%)	09(31.03%)

LETTER TO THE EDITOR

Rapid urease test is one of the invasive tests based on the principle that abundant urease enzyme is being produced by H. Pylori that hydrolyses urea to ammonia ; phenol red indicator shows the alkalinity produced thereby and the medium turns deep pink in colour. An earlier study⁴ done in the same institution reported a prevalence of 10.93%. The present prevalence is 9.48% which is encouraging and signifies the awareness of public regarding various measures initiated to curtail this troublesome disease.

REFERENCES:

1. Aroori S. *Gastroenterology Today* 2001;5:131-33.
2. Klein PD, Graham DY, Gailour A, et al. Water sources as risk factor for Helicobacter Pylori infection in Peruvian children. *The Lancet* 1991;337:1503-06.
3. Desai HG, Gill HH, Shankaran K et al. Dental plaque: a permanent reservoir of Helicobacter Pylori. *Scand J Gastroentrol* 1991;26:1205-08.
4. Berry V, Sagar V. Rapid urease test to diagnose Helicobacter Pylori Infection. *JK Sciences* 2006;8:86-68.