

3rd International Conference on

Diagnostic Microbiology and Infectious Diseases

September 24-25, 2018 | Montreal, Canada

A comparative study on the efficacy of conventional diagnostic methods vs PCR in the detection of *Helicobacter pylori* Infection amongst chronic gastritis patients of Anand region

Jayeshkumar Ruparelia and Milankumar Pathak
SP University, India

Introduction: *Helicobacter pylori* is currently implicated in the pathogenesis of various gastric and duodenal disorders and also a risk factor in gastric carcinomas. *H. pylori* infection is detected by various invasive & noninvasive methods and each method has its own pros & cons. Out of all the techniques PCR is considered to be the most rapid, accurate and sensitive method.

Purpose: The present study is an attempt to evaluate and compare the efficiency of conventional diagnostic techniques with PCR.

Methods: Four fragments of antral biopsies were collected from 100 patients & were processed for PCR, RUT, Culture and Gram staining. A serum sample was processed for determination of IgG antibodies (indirect ELISA).

Results: The detection rate *H. pylori* infection of various tests was as follows serology 54%, PCR 44%, RUT 36%, Gram staining 24% and Culture 22%. The sensitivity of Serology and PCR was found higher at 100% than RUT (81.81%), Gram's staining (54.54%) and culture (50%). The specificity of PCR, RUT, Gram's staining and culture were 100% and serology was 82.14%. Among the five diagnostic methods PCR was most accurate with 100% accuracy and the highest agreement of PCR was found with RUT.

Conclusions: Our study suggests that association of PCR & Serology constitutes the best choice for confirming the diagnosis due to its high concordance rate followed by RUT and serology if PCR is not possible due to limited resources.

jayurupareliya@gmail.com