

# PCR-RFLP AND ANTIMICROBIAL SUSCEPTIBILITY PROFILES OF *HELICOBACTER PYLORI* ISOLATED FROM ANTRUM AND CORPUS OF DYSPEPTIC PATIENTS IN THAILAND

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**Abstract.** The study determined the genetic heterogeneity of *Helicobacter pylori* isolates from antrum and corpus of the same dyspeptic patients in a Thai population and determined the relationship between the antimicrobial susceptibility (AS) profile (antibiogram) and PCR-restriction fragment length polymorphism (PCR-RFLP) pattern. One hundred and nineteen *H. pylori* isolates comprising 7 single and 56 paired antrum and corpus isolates obtained by gastric biopsy from 160 dyspeptic patients were analyzed. For PCR-RFLP, the 820 bp amplicon of *ureC* was digested with *Sau3AI* and *HhaI*, which revealed 16 (A-Q) and 19 (a-s) different PCR-RFLP patterns after *Sau3AI* and *HhaI* digestion, respectively. Combination of the restriction enzyme digestion patterns resulted in 35 distinct RFLP types. Among the 56 paired isolates, 47 were infected with *H. pylori* having the same AS and PCR-RFLP profiles, 7 with different AS profiles but the same PCR-RFLP profiles and 2 with different PCR-RFLP profiles but the same AS profiles. No patient was infected with *H. pylori* different in both PCR-RFLP and AS profiles. The results indicate that the majority of the paired *H. pylori* isolates displayed identical AS profile and PCR-RFLP patterns suggesting that most patients were infected with a single strain. Some patients could have been infected with single strains that were different in the AS profiles.

**Keywords:** *Helicobacter pylori*, genetic heterogeneity, antimicrobial susceptibility, PCR-RFLP, dyspeptic patients, Thailand

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