

中文題目：胃液導引的治療是一個臨床上較好的殺菌方式

英文題目：Gastric juice-guided therapy: a better strategic approach to *H.p.* treatment

作者：許文鴻<sup>1</sup>，謝孟書<sup>1</sup>，吳政毅<sup>1,2</sup>，郭富珍<sup>3</sup>，吳登強<sup>1,4</sup>，郭昭宏<sup>1\*</sup>

服務單位：高雄醫學大學附設醫院 胃腸內科<sup>1</sup> 高雄市立小港醫院 內科<sup>2</sup> 義守大學義大醫院  
學士後醫學系<sup>3</sup> 高雄市立大同醫院 內科<sup>4</sup>

**Background:** *H. pylori* has been associated with many gastrointestinal diseases including dyspepsia, peptic ulcer and even gastric cancer. Its eradication has been an important clinical issues. However, the eradication rate of conventional triple regimen (PPI, Clarithromycin and Amoxicillin) has been decreasing to even less than 80% in the past decade. Clarithromycin resistance is one of the culprits. Gastric juice PCR has been proposed to detect antibiotics resistance. With gastric juice PCR method, tailored therapy can be made individually to increase eradication rate. This study aims to evaluate the efficacy of gastric juice-guided therapy.

**Method and Material:** A total of 104 patients with *H. pylori* were included and randomly assigned to either gastric juice-guided therapy (50 patients) or empirical direct therapy (54 patients). Baseline demographic characteristics were evaluated in both groups. The CYP2C19 polymorphism and IL-1 $\beta$ -511 polymorphism were evaluated in each patients of both group. In the gastric juice-guided therapy, 23S *rRNA* mutation for Clarithromycin resistance and *gyrA* mutation for Levofloxacin resistance in each patient were examined. Rabepazole 20mg BID, Clarithromycin 500mg BID and Amoxicillin 1g BID for 7 days (RAK-7) was prescribed for patients with Clarithromycin susceptibility. Rabepazole 20mg BID, Levofloxacin 500mg QD and Amoxicillin 1g BID for 7 days (RAL-7) was prescribed for patients with Clarithromycin resistance but Levofloxacin susceptibility. For patients with dual resistance to Clarithromycin and Levofloxacin, high dose dual therapy with Rabepazole 20mg QID and Amoxicillin 500mg QID for 14 days (R4A8-14) or reverse hybrid therapy with Rabepazole 20mg BID and Amoxicillin 500mg BID for 14 days and Clarithromycin 500mg BID and Metronidazole 500mg BID for 7 days (RACM7-RA7) were given. In empirical direct therapy, RAK-7 was prescribed for each patient. The eradication rates in the two groups were compared.

**Result:** The baseline characteristics including sex, age, endoscopic diagnosis, CYP2C19 polymorphism, IL-1 $\beta$ -511 polymorphism and antibiotics resistance showed similarity in the two groups. The eradication rate in gastric juice-guided therapy was 90% (45/50) and the eradication rate in empirical direct therapy with NAK-7 was 72.2% (39/54). In the group of gastric juice-guided therapy, 35 of the 39 patients with susceptibility to Clarithromycin was successfully eradicated with NAK-7 (eradication rate = 89.7%) and 10 of the 11 patients with resistance to Clarithromycin was eradicated (eradication rate = 90.9%). In the group of empirical direct therapy with NAK-7, 34 of the 41 patients with susceptibility to Clarithromycin was successfully eradicated (eradication rate =

82.9%) but only 5 of the 13 patients with resistance to Clarithromycin was successfully eradicated (eradication rate = 46.1%). The eradication rates of patients with susceptibility to Clarithromycin were 89.7% in gastric juice-guided therapy and 82.9% in empirical direct therapy (p value > 0.05). The eradication rates of patients with resistance to Clarithromycin but susceptibility to Levofloxacin were 75% in gastric juice-guided therapy and 50% in traditional direct therapy (p value > 0.05). However, the eradication rates of patients with dual resistance was 100% in gastric juice-guided therapy and 33% in empirical direct therapy (p value = 0.0114)

**Conclusion:** Gastric juice-guided therapy demonstrated better eradication rates than empirical triple therapy, especially in patients with dual resistance to Clarithromycin and Levofloxacin. In the era of increasing antibiotics resistance and decreasing eradication rates, tailored therapy guided by gastric juice has the potential to be widely applied.