

中文題目:胃液中的丙二醛與幽門螺桿菌感染和胃部疾病的關係

英文題目: Levels of Malondialdehyde in the gastric juice: its association with *Helicobacter pylori* infection and stomach diseases

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Background: *Helicobacter pylori* infection causes elevation of lipid peroxidation product malondialdehyde (MDA) and this association may be due to the bacterium causing reactive oxygen species mediated damage to DNA in the gastric epithelium. The aim of the present study was to investigate the gastric juice MDA levels in relation to *H. pylori* infection and associated gastric diseases.

Methods: Gastric juice samples were obtained from 117 patients undergoing endoscopy and gastric juice MDA levels were determined by high-performance liquid chromatography (HPLC) system. We compared the MDA levels between patients with and without *H. pylori* infection and assessed the differences of MDA levels between chronic gastritis, gastric intestinal metaplasia and gastric cancer post surgical resection.

Results: MDA levels in gastric juice were significantly higher in patients with *H. pylori* infection than in those without *H. pylori* infection ($P < 0.0001$). Patients with gastric intestinal metaplasia and gastric cancer post surgical resection were also had significantly higher MDA levels in gastric juice as compared to patients with chronic gastritis ($P < 0.0001$). However, the difference of gastric juice MDA levels between gastric intestinal metaplasia and gastric cancer post surgical resection was not significant.

Conclusion: MDA in gastric juice could be used as a potential diagnostic biomarker for *Helicobacter pylori* infection and associated gastric diseases.