

A Family Suffering from Various Gastric Diseases Associated with *Helicobacter pylori* Infection

Gastric diseases by *Helicobacter pylori* are common infectious diseases found throughout the world. Both benign peptic ulcers and malignant diseases have been reported to be associated with the infection (1). However, the percentage of those infected with *H. pylori* who develop these diseases appears to be rather small in Western countries, ranging from only about 0.01% in the case of mucosa-associated lymphoid tissue (MALT) lymphoma to approximately 10% in the case of duodenal ulcer disease (1).

Here we report on two siblings – both infected with *H. pylori* – of whom the sister (64-years-old) developed a pre-pyloric ulcer and the brother (58-years-old) a gastric carcinoma. The son of the cancer patient (27-years-old) also became infected with *H. pylori*, but so far has developed only dyspepsia of the nonulcer type. However, all three children of the patient with the prepyloric ulcer developed either a duodenal ulcer, or MALT lymphoma, or gastric ulcer at the angulus, all on the basis of a gastritis caused by *H. pylori* infection.

Of three patients (asterisks in Figure 1) we were able to histologically investigate biopsy specimens. All these patients had intestinal metaplasia/gastric atrophy in the antrum. The patient with the pre-pyloric ulcer had high-grade gastritis of medium-grade activity in the antrum, while in the corpus, both the grade and activity were low. The patient suffering from MALT lymphoma had findings that were identical with those of his mother. His sister, however, who was suffering from an ulcer at the angulus, had medium-grade gastritis of low-grade activity in the antrum, while in the corpus, both degree and activity were medium-grade.

Even though we are unable to demonstrate this by microbiological examinations, we believe that highly pathogenic strains of *H. pylori* were transmitted within this family as expressed clinically by the high number of *H. pylori*-associated diseases, and histopathologically by the occurrence of intestinal metaplasia/gastric atrophy in all three patients (2). However, we cannot explain why in six documented cases in a single family the whole spectrum of *H. pylori*-associated diseases became manifest. Perhaps variations in the grade and distribution of gastritis (3) as observed in the

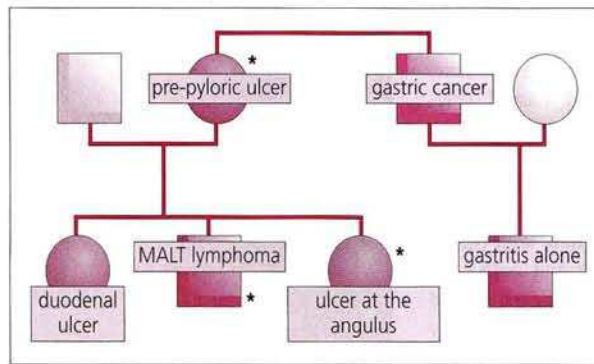


Figure 1: Pedigree of a family suffering from various gastric diseases associated with *Helicobacter pylori* infection. Solid squares and circles indicate individuals infected with *Helicobacter pylori*; open squares and circles indicated unknown *H. pylori* status; asterisks indicate those in whom biopsy material was available.

patient with the ulcer at the angulus may be a reason for this. Since, however, the patient with MALT lymphoma had patterns of gastric atrophy identical to those of his mother, we believe that other, unknown factors besides *H. pylori* infection must also be involved in the pathogenesis of MALT lymphomas.

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