

## Self-Medication With Analgesics and *Helicobacter pylori* Infection

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*Helicobacter pylori* (*H. pylori*) is a Gram-negative bacillus responsible for one of the most commonly diagnosed infections in humans worldwide. It is recognized to be associated closely with gastric and duodenal ulcers in adults and children (1, 2). *Helicobacter pylori* persistently colonizes the human stomach, induces inflammatory cytokines, and causes gastric inflammation and then increases gastric acid production (1, 3). Sometimes, *H. pylori* can cause pan gastritis with decreased gastric acid production and gastric atrophy. The prevalence rate is different from 10 to 60% according to developed or under developing countries. Crowding and poor personal hygiene play an important role in person-to-person transmission of *H. pylori* infection and also socio-economic level is strongly related to the prevalence of *H. pylori* infection, an important finding that may also reflect the same factors as those noted in developing countries. In these situations, infection clusters are reported, particularly in families with infected children. The possible routes are fecal-oral and oral-oral (1, 2). Nonsteroidal anti-inflammatory drugs (NSAIDs) are also well-established risk factors for the development of uncomplicated and complicated gastric ulcers. Evidence suggests the use of NSAIDs, especially in patients with *H. pylori* infection can cause the chance of gastric and duodenal ulcers. On the other hand, coprescription of NSAIDs with proton-pump inhibitors (PPIs) reduces gastroduodenal lesions. NSAID-naive users benefit from testing for *H. pylori* infection and, if positive, *H. pylori* eradication therapy is recommended prior to the initiation of NSAID (1, 4). There are studies showing that the interaction between *H. pylori* and NSAIDs in ulcer development maybe synergistic. Chan (3) showed that *H. pylori* eradication is essential to prevent peptic ulcers

caused by the use of nonsteroidal anti-inflammatory drugs, whose risk is reduced by almost four-fold after the disappearance of the *H. pylori* infection. Some researchers reported that PPI therapy is superior to the eradication of *H. pylori* for the secondary prevention of upper gastrointestinal bleeding in patients with *H. pylori* who continue to take NSAIDs (1, 3-6). It is clear that, ulcer risk reduction after *H. pylori* eradication therapy is more marked in patients starting to use NSAIDs than in patients who receive NSAIDs without eradication therapy. In some countries, like our region, self-medication is common and some patients, who suffer from any pain, use the NSAIDs even with high dose. Moreover, some pharmacies offer these drugs without any prescription to patients. Hence, the rate of infection is high in this area and also using NSAIDs and aspirin in this situation can cause peptic ulcer and hemorrhage. Therefore, we must acknowledge patients about this issue.

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