

Helicobacter pylori management in primary care

Mario M. D'Elíos · Elena Silvestri ·
Giacomo Emmi · Aija Zilevica · Domenico Prisco

Received: 22 July 2011 / Accepted: 10 September 2011 / Published online: 22 September 2011
© SIMI 2011

Helicobacter pylori is a Gram-negative bacterium that chronically infects the stomach of more than 50% of the human population, and represents the major cause of gastric cancer, gastric lymphoma, gastric autoimmunity and peptic ulcer diseases [1–4]. The International Agency for Research on Cancer classifies *H. pylori* as a human carcinogen for distal gastric cancer. Eradicating the bacterium, in high-risk populations, reduces the incidence of gastric cancer [5]. Likewise, antibiotic treatment leads to the regression of gastric MALT lymphoma [2]. *H. pylori* also contributes to other conditions, such as vitamin B12 and iron deficiencies, idiopathic thrombocytopenic purpura, and growth retardation in children [6].

Current guidelines indicate that the eradication of *H. pylori* infection is considered mandatory in patients with peptic ulcer and gastric malignancies, such as gastric adenocarcinoma and MALT lymphoma [6, 7]. Furthermore, it is recommended in patients with non-ulcer dyspepsia, especially in those with the evidence of macroscopic or microscopic mucosal abnormalities (erosions, intestinal metaplasia, atrophy), naïve non-steroidal anti-inflammatory drugs (NSAIDs) users, chronic NSAIDs users, first-degree relatives of gastric cancer patients as well as in unexplained

iron deficiency anaemia, and idiopathic thrombocytopenic purpura. Low-dose aspirin (ASA) therapy is widely used in primary care because of the proved efficacy in both primary and secondary prevention of cardiovascular events [8]. A synergistic interaction between *H. pylori* infection and NSAIDs has been extensively documented although the benefits of *H. pylori* eradication in NSAIDs users are conflicting [6, 9–11]. *H. pylori* has been shown to increase, by almost seven times, the risk of upper gastrointestinal complications in chronic NSAIDs users [12, 13]. The relationship between *H. pylori* infection and NSAIDs in gastroduodenal pathology is complex. Since both NSAIDs and *H. pylori* can cause peptic ulcers, *H. pylori* eradication can only be expected to prevent the recurrence of *H. pylori* ulcers, and while it may also reduce the incidence of ulcers among those with both *H. pylori* and NSAID use, the effects will vary depending on the proportion with real *H. pylori* ulcers in the population studied [6].

Zullo et al. [14] designed a very interesting study (reported in the current issue) to assess the management of *H. pylori* infection in a very large cohort of chronic NSAID users in primary care clinical settings. *H. pylori* was being used only in a minority (less than 20%) of primary care patients receiving chronic NSAID therapy. *H. pylori* was eventually cured in two-third of the infected cases. The low alertness towards such *H. pylori* infection in these patients suggests a need for prompt implementation of current guidelines. Furthermore, the results obtained by Zullo et al. [14], other large meta-analysis studies, strongly support the concept that patients requiring long-term NSAIDs/ASA therapy should be tested and cured of the infection [9, 14, 15] because the cure of *H. pylori* infection contributes to the reduction of potential life-threatening gastrointestinal critical events (such as gastroduodenal bleeding) in primary care unstable patients.

M. M. D'Elíos · E. Silvestri · G. Emmi · D. Prisco
PatologiaMedica, AOU Careggi, Largo Brambilla 3,
50134 Florence, Italy

M. M. D'Elíos (✉)
Department of Internal Medicine, University of Florence,
viale Morgagni 85, 50134 Florence, Italy
e-mail: delios@unifi.it

A. Zilevica
Clinical Microbiology, University of Latvia,
1050 Rīga LV, Latvia

Conflict of interest None.

References

1. Warren JR, Marshall BJ (1983) Unidentified curved bacilli in the stomach of patients with gastritis and peptic ulcer ulceration. *Lancet* i:1273–1275
2. Wotherspoon AC, Doglioni C, Diss TC et al (1993) Regression of primary low-grade B-cell gastric lymphoma of mucosa-associated lymphoid tissue type after eradication of *Helicobacter pylori*. *Lancet* 342:575–577
3. D'Elcios MM, Amedei A, Manghetti et al (1999) Impaired T-cell regulation of B-cell growth in *Helicobacter pylori*—related gastric low-grade MALT lymphoma. *Gastroenterology* 117:1105–1112
4. D'Elcios MM, Appelmelk BJ, Amedei A et al (2004) Gastric autoimmunity: the role of *Helicobacter pylori* and molecular mimicry. *Trends Mol Med* 7:316–323
5. (1994) Schistosomes, liver flukes and *Helicobacter pylori*. IARC Working Group on the evaluation of carcinogenic risks to humans. Lyon, 7–14 June 1994, IARC Monograph Eval Carcinog Risks Hum 61:1–241
6. Malfertheiner P, Megraud F, O'Morain C et al (2007) Current concepts in the management of *Helicobacter pylori* infection: the Maastricht III consensus report. *Gut* 56:772–781
7. Costa F, D'Elcios MM (2010) Management of *Helicobacter pylori* infection. *Expert Rev Anti Infect Ther* 8:887–892
8. Mahe I, Leizorovicz A, Caulin C et al (2003) Aspirin for the prevention of cardiovascular events in the elderly. *Drugs Aging* 20:999–1010
9. Vergara M, Catalan M, Gisbert JP et al (2005) Meta-analysis: role of *Helicobacter pylori* eradication in the prevention of peptic ulcer in NSAID users. *Aliment Pharmacol Ther* 21:1411–1418
10. Sung JY (2004) Should we eradicate *Helicobacter pylori* in non-steroidal anti-inflammatory drug users? *Aliment Pharmacol Ther* 20(Suppl 2):65–70
11. Salih BA, Abasiyanik MF, Bayyurt N et al (2007) *H. pylori* infection and other risk factors associated with peptic ulcers in Turkish patients: a retrospective study. *World J Gastroenterol* 13:3245–3248
12. Huang JQ, Sridhar S, Hunt RH (2002) Role of *Helicobacter pylori* infection and non-steroidal anti-inflammatory drugs in peptic ulcer disease: a meta-analysis. *Lancet* 359:14–22
13. Graham DY, Chan FKL (2008) NSAIDs, risks, and gastroprotective strategies: current status and future. *Gastroenterology* 134:1240–1257
14. Zullo A, Hassan C, Olivetti D et al (2011) *Helicobacter pylori* management in non-steroidal anti-inflammatory drug therapy patients in primary care *Intern Emerg Med*. doi:10.1007/s11739-011-0578-7
15. Hunt R, Bazzoli F (2004) Review article: should NSAID/low-dose aspirin takers be tested routinely for *H. pylori* infection and treated if positive? Implications for primary risk of ulcer and ulcer relapse after initial healing. *Aliment Pharmacol Ther* 19(Suppl 1):9–16