



Response to Treatment of *Helicobacter pylori*-associated Dyspepsia: Eradication of *Helicobacter pylori* or Correction of Gastric or Intestinal Dysbiosis?

TO THE EDITOR: We have a special interest in the findings reported by Kim et al.¹ that the symptom response following treatment for *Helicobacter pylori* in functional dyspepsia (FD) depends on the type of antibiotic used (metronidazole better than clarithromycin), the duration of therapy (10-14 days better than 7 days), and the presence or absence of concomitant irritable bowel syndrome (IBS). The authors speculate that the symptom relief could also be due to correction of accompanying intestinal dysbiosis.

Some years ago, we showed that patients with non-ulcer dyspepsia (now termed FD) had altered colonic motility, irrespective of the subtype (ulcer type—now termed epigastric pain syndrome, or dysmotility type—now termed postprandial distress syndrome).² We suggested that the dysmotility in these patients is a diffuse phenomenon although the presenting symptom may be localized. Recent literature accepts that there is an overlap between FD and IBS. We had also reported then that short courses of metronidazole give symptom relief in IBS.³ Thus, the authors' observation that patients with FD respond better to anti-*H. pylori* treatment regimens incorporating metronidazole and in the presence of IBS, is not surprising.

We recently reported that the gastric microbiota in patients infected with *H. pylori* differs between those with and without FD,⁴ and the intricate networking between *H. pylori* and the concomitant gastric microbiota.⁵ There has been speculation that the relief of symptoms after *H. pylori* treatment could also be due to eradication of coexisting bacteria in the stomach.⁶

The issue is thus more complex than it seems. In FD, does metronidazole provide relief by affecting *H. pylori*, the concomitant gastric microbiota, or the intestinal microbiota? Since intestinal microbiota may have a role in IBS pathogenesis, is relief of FD symptoms partially affected by relief of IBS symptoms, the two con-

ditions known to overlap?

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