## Gastroesophageal reflux disease, irritable bowel syndrome and functional dyspepsia as overlapping conditions: focus on effect of trimebutine

## Jannis Kountouras<sup>a</sup>, Michael Doulberis<sup>a,b</sup>, Apostolis Papaefthimiou<sup>a,c</sup>, Stergios A. Polyzos<sup>a,d</sup>

Aristotle University of Thessaloniki, Ippokration Hospital, Thessaloniki, Macedonia, Greece; University Hospital Inselspital, Bern, Switzerland; 401 General Military Hospital of Athens, Greece

In their comprehensive review, de Bortoli *et al* [1] aimed to discuss the coexistence of gastroesophageal reflux disease (GERD) with irritable bowel syndrome (IBS) and functional dyspepsia (FD) in the same patients and to evaluate the impact of diverse GERD treatments on the health-related quality of life (HR-QOL) of these patients; they mentioned 2 trials that reported resolution of the IBS symptoms in 20-40% of patients after proton pump inhibitor (PPI) therapy [1]. In one of these trials, we mainly observed [2] that trimebutine maleate is effective in the aforementioned overlapping disorders.

Relative data indicate that the prevalence of overlaps of FD and/or IBS in GERD, GERD and/or IBS in FD, and GERD and/or FD in IBS is 46.9%, 47.6% and 34.4%, respectively, with worsened HR-QOL [3]. Moreover, *Helicobacter pylori* (*H. pylori*) infection could also be involved in GERD pathophysiology, at least in some national studies, as well as in FD and IBS patients [4,5].

In this regard, our own preliminary data [2], also mentioned by the authors [1], showed that *H. pylori* is common in patients with GERD-IBS-FD and/or erosive esophagitis, while *H. pylori* eradication plus PPI and/or trimebutine regimens offer improvement in HR-QOL, mainly in patients who receive trimebutine. In a subsequent study, we confirmed our preliminary data [6], signifying the effectiveness of trimebutine in these overlapping populations.

In overlapping disorders trimebutine could act: as a modulator of gastrointestinal tract motility being a promising candidate for treatment of hypermotility and hypomotility disorders [7]; by hastening gastric emptying, shortening the lag period, causing a premature phase III of the migrating motor complexes in the gut and controlling colonic contractile action [2,8]; by inducing release of gastrointestinal agents such as motilin; by modulating visceral sensitivity; by ameliorating symptoms such as diarrhea and abdominal pain [2,8]; and as a possible antimicrobial agent against bacteria that could trigger

post-infectious functional gastrointestinal disorders [9,10], thereby requiring additional relative investigation.

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<sup>a</sup>Department of Medicine, Second Medical Clinic, Aristotle University of Thessaloniki, Ippokration Hospital, Thessaloniki, Macedonia, Greece (Jannis Kountouras, Michael Doulberis, Apostolis Papaefthimiou, Stergios A. Polyzos); <sup>b</sup>General Internal Medicine, University Hospital Inselspital, Bern, Switzerland (Michael Doulberis); <sup>c</sup>Gastroenterology, 401 General Military Hospital of Athens, Greece; (Apostolis Papaefthimiou); <sup>d</sup>First Department of Pharmacology, Department of Medicine, Aristotle University of Thessaloniki, Ippokration Hospital, Thessaloniki, Macedonia, Greece (Stergios A. Polyzos)

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Correspondence to: Jannis Kountouras, MD, PhD, Professor of Medicine, Gastroenterologist, 8 Fanariou St, Byzantio, 551 33, Thessaloniki, Macedonia, Greece, e-mail: jannis@auth.gr, ancoratus2010@gmail.com

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