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Letter to the Editor

The Effect of Trimebutine and/or *Helicobacter pylori* Eradication on the Gastroesophageal Reflux Disease, Irritable Bowel Syndrome, and Functional Dyspepsia Overlapping Disorders

TO THE EDITOR: Hussain et al[1] recently investigated the trimebutine effect on the model of overlap syndrome (OS) in guinea pigs; they concluded that trimebutine is effective on upper and lower gastrointestinal tract (GIT) motor function in a peripheral corticotropin-releasing factor induced OS model, thereby signifying the trimebutine introduction for the treatment of OS between functional dyspepsia (FD) and irritable bowel syndrome (IBS) patients.

Although current information regarding the overlapping gastroesophageal reflux disease (GERD), IBS, and FD is limited, existing evidence supports the potential concomitance of GERD with IBS and FD in the same patients, thereby signifying the diverse treatments introduction that could impact on the health-related quality of life (HR-QOL) of these patients;[2] as mentioned by the authors,[1] such overlaps worsened HR-QOL. Moreover, *Helicobacter pylori* infection may also contribute to the pathophysiology of GERD, at least in certain ethnic populations, and FD and/or IBS;[3,4] in IBS, the existence of FD is connected with *H. pylori* infection and perceived stress.[4]

Our own preliminary data,[5] revealed that *H. pylori* infection is frequent in patients with GERD-IBS-FD and/or erosive esophagitis and *H. pylori* eradication plus proton pump inhibitors and/or trimebutine regimens offer improvement of HR-QOL predominantly in patients treated with trimebutine. Consequently, we confirmed our preliminary data,[6] thereby signifying the trimebutine efficacy in the aforementioned overlapping populations.

Specifically, *H. pylori*-induced mast cells (MCs) are significant effectors of the GIT-brain axis that translate the stress signals into the induction of variable neurotransmitters and pro-inflammatory mediators that might contribute to GIT pathophysiology; *H. pylori* stimulated chronic perceived stress results in decreased host defense and initiates intestinal inflammation through MC-dependent mechanisms, thereby signifying the activation of peripheral corticotropin-releasing factor receptors and MC as significant mechanisms involved in stress linked GIT pathophysiology;[7,8] *H. pylori*-related stress leads to the induction of IBS, GERD, and additional GIT disorders;[8] *H. pylori*-induced MCs activation and mediator release contribute to the development of major IBS and GERD symptoms;[7] changes in the upper and lower GIT permeability, motility, and secretion can appear, for example, in IBS, and many of these disturbances disappear after *H. pylori* eradication with concomitant improvement of HR-QOL;[7] and *H. pylori*-induced disturbed gastric emptying and FD symptoms, are improved after *H. pylori* eradication in FD patients.[7]

In overlapping disorders, apart from several trimebutine-induced effective actions mentioned by the authors,[1] this drug could also act by: shortening the lag period (ie, time period before constant gastric emptying onset);[5] and as a possible antimicrobial agent against GIT bacteria that trigger post-infectious functional gastrointestinal disorders,[9,10] thereby necessitating further relative research.

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