

Gastric fermentation in functional dyspepsia

Barrios Adriana, Barrios Antonio, Dunsford Matthew, Alvarez Angela, Tzorin Dominga and Paz Jose Miguel

Las Torres Clinic Quetzaltenango, Guatemala

Background/Aims: The role of the gastric fermentation in functional dyspepsia has been investigated.

Methods: Lactulose Hydrogen Breath test, *H. pylori* 13C Urea Breath Test. 47 patients with functional dyspepsia (FD) has been investigated.

Results: Positives for lactulose hydrogen breath test (SIBO) 23, negatives (SIBO) 24.

H. pylori and hydrogen breath test (SIBO) positives 12.

Introduction: At least 20% of the population has chronic symptoms that can be attributed to disorders of gastroduodenal function, and the majority of these people have no evidence of organic causes. Diagnostic criteria: One or more of the following bothersome: postprandial fullness, early satiation, epigastric pain, epigastric burning and no evidence of structural disease, (including a upper endoscopy) that is likely to explain the symptom onset at least 3 months with symptom onset at least 6 months before diagnosis. (1) The bacterium *Helicobacter pylori* is found in 40% of the population and is responsible for the development of the duodenal ulcer disease. The infection also is a cause of gastric ulcer diseases, and of some cases of non-ulcer dyspepsia and gastric adenocarcinoma (2). In an analogous way, the post-infectious in the IBS (Irritable

Bowel Syndrome), several studies have identified the *novo* development of FD following an enteric infection. *Giardia lamblia* infection has been shown to provoke visceral hypersensitivity and delay gastric emptying. Besides the bacteria *E.coli* in gastric infection can produce dysmotility (3). The latest iteration of the Rome IV, published in 2016, represents a significant departure from prior version with a much broader approach to the definition and potential pathophysiology of functional gastrointestinal disorders and now recognizes the possible contribution of such phenomena as low-grade inflammation, changes in the gut microbiota, and altered brain processing to the pathogenesis of the symptoms (3). Finally, the growth of bacteria was demonstrated with culture of gastric biopsy (4).

Hydrogen breath test using various substrates like glucose, lactulose, lactose and fructose are being used more and more to diagnose small intestinal bacterial overgrowth (SIBO) and lactose or fructose malabsorption. Though quantitative culture of jejunal aspirate is considered as gold standard for the diagnosis of SIBO, hydrogen breath test, in spite of their low sensitivity, are popular for their non-invasiveness. (5).

e: adrianabarriosmd@gmail.com

 Notes: