# Letter to the Editor

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Ana María Leguízamo: Honorary Profesor of Gastroenterology at the Hospital Universitario San Ignacio of the Pontificia Universidad Javeriana in Bogotá, Colombia
Albis Hani de Ardila: Professor and Chief of the Gastroenterology Unit at the Hospital Universitario San Ignacio of the Pontificia Universidad Javeriana in Bogotá, Colombia
Valeria Costa Barney: Gastroenterologist at the Hospital Universitario San Ignacio of the Pontificia Universidad Javeriana in Bogotá, Colombia

Dr. Jaime Alvarado
Editor
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Dear Dr. Alvarado:

We read the article by Castillo et al. (1) with interest. It shows the impact of lifestyle interventions for treating gastroesophageal reflux disease (GERD) and makes clear that one of the most important developments in the pathophysiology of GERD has been the discovery of acid pocket in 2001 when Fletcher et al. (2) described an area of low pH immediately distal to the cardia. Their hypothesis was that this was a local acid pocket near the gastroesophageal junction in which the neutralizing effect of food on pH was absent. They suggested that this was the source of acid in the postprandial period. On this basis, recently developed drugs such as alginates and baclofen (3) have been evaluated for their effects on the acid pocket. (4) Several studies have shown that reflux increases in the right lateral decubitus position. The reason for this is not entirely clear, but it may be related to increasingly frequent transient lower esophageal sphincter relaxations (TLESRs) in the right position or possibly to the fact that the gastroesophageal junction is located above the level of gastric acid in the left lateral decubitus position. (5) Specifically, total reflux time, average time necessary for clearance of acid and TLESR are significantly longer for patients lying on their right sides than for patients in left lateral decubitus position.

With regard to consumption of food before going to bed, a randomized trial that compared consumption two hours before going to bed with consumption six hours before going to bed has shown that later food intake favors more reflux episodes while a person is supine which results in more frequent disturbances of sleep. (6) Finally,

the frequency of TLESRs is directly related to the degree of proximal gastric distention. (7) Similarly, a study by El-Serag et al. has shown that diets with large amounts of fat, particularly saturated fat, are associated with an increased risk of GERD symptoms and erosive esophagitis. (8) Various physiological studies of healthy volunteers and patients with GERD have shown increased frequency of TLESRs and esophageal acid exposure associated with fat intake. (9, 10) A study by Boeckxstaens et al. (11) has confirmed that ingestion of food intake is a well-tolerated and reliable stimulus for the onset of TLESRs and reflux in patients with GERD.

A study by Castell et al. has shown that chocolate lowers basal LES pressure which explains the reason for the pathogenesis of chocolate induced reflux symptoms. The relationship between chocolate consumption and increased esophageal acid exposure was assessed by intra-esophageal pH monitoring. It is believed that chocolate's effects are due to the percentage of methylxanthines (theobromine in particular) and their influence on cyclic adenosine monophosphate (cAMP). (12) The information about the possible relationships between diet and GERD is scant which makes critical studies demonstration of the impact of changes in lifestyle on GERD fundamental.

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