Review of: "Oscillating Esophageal Acid Sensitivity in Symptomatic Reflux Hypersensitivity and Functional Heartburn"

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Potential competing interests: No potential competing interests to declare.

NERD; abnormal esophageal acid exposure, positive symptom-reflux

Reflux hypersensitivity: normal esophageal acid exposure, positive symptom-reflux association with acid or bile ,pancreatic juice reflux

Functional heartburn; normal esophageal acid exposure, and negative symptom reflux association

While NERD is the most prevalent phenotype in adults, the majority of children can be classified as having the functional heartburn.

Esophageal hypersensitivity may be related to the quality of the reflux episodes.

Studies have shown that full column reflux, mixed liquid-gas reflux episodes, weakly acidic reflux, and impaired chemical clearance can all trigger symptoms in patients with reflux hypersensitivity. Patients with esophageal hypersensitivity may also altered mucosal integrity. A variety of histologic abnormalities have been reported in patients with reflux hypersensitivity, including basal cell hyperplasia, papillary elongation, inflammatory cell infiltration, although these have not consistently been shown to correlate with symptom severity. Histology of functional heartburn is similar to healthy volunteers.

Visceral hypersensitivity also likely plays a role in symptoms perception in patients with functional heartburn, who have significantly higher mechanosensitivity to balloon distension and chemosensitivity to acid perfusion, when compared to either healthy controls or patients with NERD.

I ask some questions to author.

1. How about of bile reflux in reflux hypersensitivity by Bilitec?
2. Please comment about higher mechanosensitivity to balloon distension and chemosensitivity to acid perfusion in

functional heartburn.

3. I think functional heartburn has been associated with other functional GI disorders, suggesting that there may be a predisposition to pain syndromes.Psychological and physiologic stress has also been found to modulate pain perception to esophageal stimuli. How about my comment?