

Weakly acidic reflux can also cause heartburn

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NEW YORK (Reuters Health) - Reflux doesn't have to be extremely acidic in order to give you that burning feeling, a new study shows.

In fact, burping can result in heartburn even when no liquid accompanies the gas up the esophagus, Dutch researchers report.

It remains unclear why reflux episodes don't always cause heartburn, Dr. A J. Bredenoord of St. Antonius Hospital in Nieuwegein, the Netherlands, and colleagues note in a report in the journal Gut.

To investigate, they monitored 32 patients with gastroesophageal reflux disease, or GERD, symptoms for 24 hours using traditional pH testing as well as a technique called impedance.

Impedance allows researchers to evaluate how far reflux extends up from the stomach, measure the volume of reflux, and evaluate acidity with greater precision. "It's a completely new way of looking at reflux," Bredenoord said.

All of the study subjects had stopped taking acid-suppressing medication.

A total of 1,807 episodes of reflux occurred, with 203 causing symptoms. Episodes that caused symptoms showed a larger increase in acidity within the esophagus, more acidity, and extended further up the esophagus. The volume of reflux in heartburn-causing episodes was larger than for those that caused no symptoms, while the liquid also took longer to clear from the esophagus.

Nearly 15 percent of reflux episodes were caused by more weakly acidic reflux material.

The researchers also identified 426 gas-only reflux episodes, 12 of which caused symptoms. Symptoms were more likely with gas reflux if they were accompanied by a rise in acidity.

The findings show, Bredenoord said, that "if you only focus on looking at whether these symptoms are related to acid, you will certainly miss a few patients whose symptoms are also related to weakly acid reflux." And volume of reflux, as well as its acidity, plays a role in whether it causes symptoms, he added.

He points out that some drug companies are developing medications designed to reduce the number of reflux episodes, rather than targeting acidity, as all currently available GERD drugs do. This could be helpful for the minority of patients whose symptoms are due to more weakly acid reflux, he said.

Also, Bredenoord said, instruments for measuring impedance have been approved in both the United States and Europe, and will be more effective for evaluating GERD patients and monitoring treatment effectiveness than pH alone, without causing patients' additional discomfort.

SOURCE: Gut, March 2006.