



## Avoiding Overmedicalizing by Recognizing Aerophagia Before the Big Workup

By: Paul E. Hyman, M.D., Professor of Pediatrics, Louisiana State University, Chief, Pediatric Gastroenterology, Children's Hospital, New Orleans, LA

“My 3-year old child has abdominal distention every day. He starts the day with a flat belly, but each time he eats it gets bigger until the evening, when it sticks way out. He feels so full that he doesn't eat a good dinner. He has terrible gas all night long. We hear the gas passing when we walk by his room as he sleeps. X-rays showed that his small bowel is distended, and filled with gas. The endoscopy was normal and his growth is normal. Our doctor says it's probably just dysmotility or a very mild form of chronic intestinal pseudo-obstruction. What is dysmotility? Will it get worse? What can we do to help our child?”

There are only two causes for gas distending the gastrointestinal tract: 1) excessive air swallowing, and 2) gas products of bacterial metabolism. Air swallowing (or aerophagia) is common, but not commonly recognized in pediatrics. Chronic intestinal pseudo-obstruction or any mucosal inflammatory disorder predisposes the small intestine to bacterial overgrowth with subsequent gaseous distention.

Most pediatric clinicians have never diagnosed the functional gastrointestinal disorder aerophagia, and do not think of it as a possibility when they are asked

to evaluate a child like the one described. The clinician considers bowel obstructions and inflammatory disorders first, and if there is no obstruction or inflammation they commonly assume there is a motility disorder. The idea that there may be real signs and symptoms that are functional is a relatively new one. Functional disorders cause signs and symptoms not due to anatomic or biochemical abnormalities, but which fall within the expected range of the body's behavior.

A Pediatric Working Team defined the symptom-based criteria for diagnosing aerophagia<sup>(1)</sup>: At least 12 weeks in the preceding 12 months of two or more of the following signs and symptoms:

1. Air swallowing
2. Abdominal distention due to intraluminal air
3. Repetitive belching and/or increased flatus (gas)

Aerophagia is associated with variable combinations of repeated audible swallows, anorexia, abdominal pain, excessive gas, and/or excessive burping.

Nothing is known about the prevalence of aerophagia in pediatrics.

Aerophagia may be confused with gastroesophageal reflux disease because noises in the throat are sometimes described by parents or observed by the clinician. Aerophagia may also be confused with a motility disorder because of the gaseous abdominal distention. Typically, the distention increases as the day goes on. As the child sleeps, gas passes, leaving the abdomen flat by morning.

The diagnosis of a pediatric functional gastrointestinal disorder like aerophagia, in a child with a normal physical examination and growth history, may be made with confidence by satisfying the symptom-based diagnostic criteria. A hydrogen breath test may be used to test for lactose malabsorption or bacterial overgrowth, and to evaluate intestinal transit time. Breath testing is comfortable, inexpensive, and reassuring when the results are normal.

It is important to make an early diagnosis of aerophagia. First, it saves the family from the unnecessary worry that comes when thinking about a disease. Second, it saves the child from unnecessary discomfort and from risks associated with a medical evaluation that involves extensive tests. Third, it saves time and money for everyone involved.

Treatment consists of effective reassurance and an explanation of symptoms for the family and child. Often the clinician helps the child and family recognize the air swallowing during the visit. A

certain amount of air swallowing with meals is normal; avoiding carbonated beverages, hard candies, or chewing gum may help reduce air swallowing. Stress or changes in emotional state can cause increased air swallowing. Behavior modification, relaxation and breathing techniques, and other psychotherapies may be helpful in some cases.

## Reference

(1) Di Lorenzo C, Rasquin A, Forbes D, et al. Aerophagia. In Drossman DA, ed. *The Functional Gastrointestinal Disorders: Rome III*. Lawrence, KS: Allen Press. 2006 pp 730-733.

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