Resolution of Atypical Chest Pain during Treatment for Idiopathic Orthostatic Edema

To the Editor: A 32-yr-old female presented for clinical evaluation and search for a possible endocrine etiology for a variety of gastroenterological symptoms. Approximately 10 yr earlier, she suddenly become anorectic, experienced significant weight loss, and was referred to a gastroenterologist. She was diagnosed with irritable bowel syndrome, and treated with antispasmodics. One year later, she again became ill, but shortly thereafter became pregnant, felt well, and had an uneventful pregnancy. Three years later, she again became ill. She developed anorexia with severe odynophagia. There was nausea, but no vomiting. An extensive work-up included esophagogastroduodenscopy, upper GI and small bowel x-ray, barium enema, abdominal ultrasound and CT scan, hepatobiliary scan, and esophageal manometry. Only a small sliding hiatal hernia and questionable antral erosions were found. Various medications including H_2 antagonists, metoclopramide, sucralfate, antacids, and antispasmodics were tried without much benefit.

The patient then was referred to our practice. She had no symptoms of endocrine disease. The patient's mother had hypothyroidism and idiopathic edema. Physical examination was normal. Thyroid and adrenal tests were normal. However, a free-water load test was abnormal. Less than 47% of the ingested fluid was excreted over 4 h in the supine position and less than 33% while erect. These findings led to the diagnosis of idiopathic edema.

The patient was started on dextroamphetamine sulfate

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capsules, 10 mg daily each morning, and her GI symptoms cleared. She experienced no side effects. After more than a year on treatment and remaining symptom-free, the patient's gastroenterologist urged her to discontinue the medication. Her odynophagia and dysphagia returned about 1 wk later. She resumed the medication and once again, the GI symptoms cleared. She remained asymptomatic for several years.

The patient's gastroenterologist again took her off the medication, and she not only developed anorexia and chest and abdominal pain, but also began to vomit and lose weight. She lost approximately 25 pounds and was admitted to the hospital for nutritional support. At that time, a psychiatric evaluation concluded that there was no major mental disorder present. Dobhoff tube feedings were begun, but the patient continued to lose weight and they were discontinued. Upper endoscopy was normal, as was a gastric emptying study. A 5-h glucose tolerance test was also normal. She was started once again on a H_2 antagonist. The vomiting stopped and she did gain a few pounds; however, she was unable to attain her normal weight and still experienced some symptoms, including acid eructations, a metallic taste in her mouth, frequent bowel movements, and odynophagia. Dextroamphetamine was then restarted, resulting in complete resolution of symptoms.

It is well recognized that in idiopathic edema there is an increase in total body water. This is usually manifested by weight gain and pitting or nonpitting peripheral edema. The mechanism responsible is thought to be one of a capillary leak of fluid in the erect position which, when not resorbed, remains in the interstitium (1). Whereas this is typically recognized by edematous extremities, it is also seen as swelling of joints, eyelids, or the abdominal wall. One proposed mechanism of GI edema is that of a capillary leak (2). Sympathomimetic amines are thought to stabilize capillary membranes, thereby decreasing interstitial edema, so it is reasonable to postulate that a decrease of esophageal and gastric edema caused a cessation of symptoms in our patient.

Although it is possible that the resolution of our patient's symptoms could be attributed to a placebo effect of the dextroamphetamine, we find it curious that only that particular medication was able to offer complete relief. Also, there was a resumption of chest pain upon each withdrawal of the dextroamphetamine, only to have it abate again when that medication was restarted. She remains asymptomatic on dextroamphetamine.

In patients with atypical chest pain unresponsive to the usual therapeutic modalities, a water load test should be performed, and if consistent with idiopathic orthostatic edema, a trial of dextroamphetamine should be considered.

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