

CASE REPORT

Idiopathic achalasia primarily diagnosed as bulimia nervosa: the importance of the nutrologist

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ABSTRACT

Idiopathic achalasia is a primary esophageal motor disorder characterized by esophageal aperistalsis and abnormal lower esophageal sphincter relaxation in response to deglutition. Bulimia nervosa is an eating disorder, which amongst other symptoms presents with self-induced vomiting after repetitive episodes of binge eating in order to prevent weight gain. The present study reports the case of a female patient initially diagnosed with bulimia nervosa, after ruling out an etiology of organic cause through lab tests and endoscopy. The patient was referred to a nutrologist for treating the eating disorder, and after nutritional evaluation, she received nutritional supplementation due to severe dysphagia, regurgitation and weight loss. As diagnostic criteria of bulimia nervosa were not met, a further investigation was conducted, which eventually confirmed idiopathic achalasia through two specific tests: digital esophagogastroduodenal seriography, and esophageal manometry. Chagas disease, the major cause of idiopathic achalasia in Brazil, was ruled out by specific lab test. In view of the severity of the disease, the patient underwent urgent cardiomyotomy and fundoplication. Later, balloon dilators were also used in two occasions. After sixteen months of medical and nutrology follow-up, the patient now is in good nutritional status and was able to go back to her daily activities and healthy lifestyle.

Keywords: Idiopathic achalasia, bulimia nervosa, nutrologic evaluation, nutrologic supplementation, nutrologist.

INTRODUCTION

Idiopathic achalasia is a primary esophageal motor disorder characterized by esophageal aperistalsis and abnormal lower esophageal sphincter relaxation in response to deglutition. It is a rare, possibly autoimmune or virus-mediated disease (Francis and Katzka, 2010; Dughera et al., 2011). Studies show an annual incidence of 1:100,000 individuals and a prevalence of 10:100,000 (Vela and Vaezi, 2003). It can occur at any point of life, in men and women alike, mostly between 25 and 60 years of age (Vaezi and Richter, 1998).

The first symptom of achalasia is a gradual dysphagia for solid food, followed by liquids (82-100%) (Vaezi and Richter, 1998). Thirty to 90% of the patients present with regurgitation unresponsive to medication and weight loss. Regurgitation of food retained in the dilated esophagus, especially in supine position, can lead to aspiration and pneumonia (Richter et al., 2002; Farrokhi and Vaezi, 2007). Retrosternal pain (17 to 95%) (Vaezi and Richter, 1998), and heartburn (27 to 42%) can also occur in patients with achalasia (Farrokhi and Vaezi, 2007). The risk

of cancer with achalasia is negligible, although some authors suggest such an association (Sandler et al., 1995).

Its diagnosis is based on the disease's history, by seriography and esophageal motility test (esophageal manometry) (Farrokhi and Vaezi, 2007). Endoscopic examination is also important for ruling out malignancy as a cause of achalasia (Achklar, 1995). Currently, there is no cure, however, palliative treatment (pneumatic dilations, myotomy, and pharmacological agents) obtains excellent results in 90% of the patients (Farrokhi and Vaezi, 2007).

Bulimia nervosa (BN) is an eating disorder, as per DSM-IV TR (Washington, 2000) characterized by repetitive episodes of binge eating, followed by inadequate compensatory behavior, such as: self-induced vomiting, inadequate use of laxatives, diuretics, enemas or other medications, fasting or excessive exercising, to avoid gaining weight.

The present study aims at highlighting the importance of nutrologic evaluation not only for identifying idiopathic achalasia, which might be mistakenly diagnosed as bulimia nervosa, but also for supplemental nutrology treatment.

CASE REPORT:

C.F., white female, 31 years old, born and living in Florianopolis, SC, Brazil, was referred for nutrology treatment after bulimia nervosa (BN) was diagnosed. She had a history of weight loss (9 kg) and frequent, unforced vomiting, of one year of evolution. Symptoms began in association with several negative life events and high level of emotional stress (father's death, mother's suicide attempt). Intense retrosternal pain was the first symptom that led her to consult a doctor to rule out cardiac origin. An organic etiology had been previously ruled out by clinical, laboratory and ultrasound examination of the abdomen. The patient was on a proton pump inhibitor, 20 mg/day because of chronic gastritis observed at upper digestive endoscopy. She had a history of healthy diet, moderate physical activity and was currently in psychotherapy, but did not use the prescribed psychopharmaceutical drugs. The nutrologic and anthropometric evaluation was performed during the first consultation. Patient was found emaciated (63 kg and 1.79 m), with a BMI of 19.7 kg/m² and severe weight loss (12% over the past six months). On physical examination, she was without fever, 64 bpm, blood pressure 110-70 mmHg, and normal abdomen. Heart and lung auscultation unchanged. During the eating anamnesis, patient did not report anorexia or recurring binge eating episodes. As for vomiting (1 to 10/day), she reported that they were spontaneous and usually happened when she was anxious, after meals, and also several times at night. Besides vomiting, she had an intense drool. She further reported dysphagia ("choking") with certain foods (meat and shrimp), and inadequate food intake in terms of quality and quantity. Chocolate was the most consumed food, which she took in small quantities.

The specialized questionnaire (BSQ - Cooper et al., 1987) was also applied; however, no disturbance of the body image was reported. In an interview with her husband, she reported that the frequent and self-induced vomiting, confirmed by several experts consulted, were compromising the familial, social, and professional life of the couple. Chest X-ray did not show any significant findings. Preliminary lab tests were normal; however, later subclinical findings (ferritin 15 ng/mL) were reported.

The diagnosis of dysphagia and early malnutrition recommended an adjustment in the food's physical characteristics to a smoother consistency (liquid or paste) volume: quotient g/cal < 1, cal density > 1.3; fractionation: 6-8 meals/day and high-calorie, high-protein and normolipidemic nutritional supplementation. Iron (100 mg elemental iron per day) and vitamin supplementation were also prescribed. Food intake records were used, and the patient was also advised to seek psychotherapy. As she did not meet all diagnostic criteria of either BN or anorexia (AN), a further investigation was initiated. The patient improved over the first month. However, despite nutritional (up to 6 units/day) and vitamins and minerals supplementation, her condition (30 regurgitation episodes/day) and laboratory findings (hct 34 %, hb 11.8 g/dL, glycaemia 77 mg/dL, B12 271 pg/mL) worsened and

she was unable to go to work. Finally, a diagnosis of idiopathic achalasia was reached by performing two specific tests: esophageal seriography and manometry. Seriography showed "bird's beak" narrowing of the distal esophagus and megaesophagus (dilation of the esophagus) (Figure 1). An infectious origin of Chagas disease was ruled out. Due to the severity of the clinical condition -14-kg weight loss, first-degree malnutrition, and absolute inability to take in liquids-, patient was admitted to the hospital to receive parenteral nutrition and four days later (May 14, 2010) to undergo urgent surgical treatment with cardiomyotomy and fundoplication. After three months, due to later complications, the use of balloon dilators was required. After 16 months of having been diagnosed with idiopathic achalasia and surgical and nutrologic treatment, the patient recovered weight (11 kg) reaching a BMI of 21.7 kg/m², and went back to her daily activities and healthy lifestyle.



Figure 1. Digital image of an esophagogastrroduodenal seriography showing the distal narrowing in bird's beak esophageal achalasia.

DISCUSSION

In the literature, there are reports on achalasia in adults and teenagers diagnosed as having eating disorders (Kenney, 1984; Stacher et al., 1986; Stacher et al., 1990; Wright et al., 1990). The cases are mainly of achalasia mimicking AN (Wright et al., 1990; Marshall and Russell, 1993; Nahon et al., 2001; Richterich et al., 2003). Achalasia has also been mistakenly diagnosed as BN (Smith and Christie, 1984; Wright et al., 1990; Marshall and Russell, 1993). Mohammed and Whorwell (2006) reported a case where both disorders coexisted (BN and achalasia) in a 52-year old woman, with a history of over 30 years of BN who changed the pattern of voluntary to involuntary vomiting. More recently, Teufel and colleagues (2009) reported concomitant BN and achalasia in a 34-year old woman. In the present study, diagnostic criteria of BN were absent, vomiting was neither self-induced nor compensatory, and the patient did not have nausea, but regurgitations. As for the current diagnostic criteria of purging AN, she showed neither voluntary food limitation or refusal in order to maintain an adequate body weight, nor weight and body shape disturbances, and her periods were normal.

To reach a diagnosis of achalasia, two to three examinations are required: esophagogastroduodenal seriography, esophageal manometry, and upper digestive endoscopy (Richter, 2001). In patients with severe achalasia, seriography typically presents as a stomach dilatation, aperistalsis, and distal, "bird's beak" esophageal narrowing (Hart and Francis, 2009). Manometry is considered the diagnostic gold standard for achalasia (Pandolfino and Kahrilas, 2005). In this examination, usual achalasia symptoms are aperistalsis, hypertonus, and a weak relaxation of the lower esophageal sphincter (LES) (Pandolfino and Kahrilas, 2005). The patient in question showed all these characteristics in both examinations. Endoscopy is recommended in patients with achalasia to rule out any malignancy. The findings obtained with a second endoscopy suggested achalasia, with negative biopsy for malignancy and positive for candidiasis.

According to Dughera and colleagues (2011), the commonest cause for secondary achalasia is infection with *Trypanosoma cruzi*, found in Central and South America. However, this was ruled out in this patient by specific laboratory test.

Patients who are not good candidates for surgery can be treated with endoscopic injection of botulinum toxin into the LES or with medications (Farrokh and Vaez, 2007). Botulinum toxin is safe and effective, but has been used mainly in patients with comorbidities (Dughera et al., 2011). Pneumatic dilation and myotomy are currently the best alternatives, but can present technical problems or complications. Although new techniques (stent) have been used (Zhao et al., 2009), further studies are still necessary for reestablishing the anatomical function of the lower esophageal sphincter (Dughera et al., 2011).

In patients with a diagnostic hypothesis of BN, the psychopathological symptoms must always be carefully assessed. Therefore, where there is a suspicion of BN with unforced vomiting, the diagnosis of idiopathic achalasia should always be ruled out before a final diagnosis. Finally, this case report illustrates the relevance of a comprehensive view of the nutrologist and of an early diagnosis of idiopathic achalasia for better planning and management when approaching these patients.

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