Sprue-like enteropathy due to olmesartan

Dear Editor,

The angiotensin II receptor antagonists, such as olmesartan, are prescribed for the treatment of hypertension. In 2013, the FDA collected an alarm of these drugs which was associated with disturbances at duodenal mucosa (1). In 2012 and 2013 two series of patients treated with olmesartan related chronic diarrhea and villous atrophy that did not improve with gluten-free diet were published. In both series diarrhea was improved withdrawing the drug (2,3). More recently, new observations of olmesartan related chronic diarrhea have been reported (4-7). Our aim is to reinforce the importance of the recognition of such relationship due to the widespread use of this drug and because the ignorance of that association makes the diagnosis impossible.

We present a 75-years-old male patient, former-smoker, with hypertension, dyslipidemia, ischemic cardiomyopathy and Raynaud’s phenomenon. He was treated with acetylsalicylic acid, topic nitroglicerine, and an association of amlodipine and olmesartan. He was referred to our Hospital because liquid diarrhea without blood and a weight loss higher to 20 kg for the last 20 months.

In previous admissions in other 2 hospitals, several explorations were performed showing: Macrocytic normochromic anemia, hypoalbuminemia, hypocholesterolemia, mottled pattern positive ANA (1/160). Other autoantibodies, including tissular antitransglutaminase and antiendomysium were negative. Positive HLADQ2 and negative HLADQ8. Microbiological fecal studies for virus, pathogenic bacteria and parasites were negative. Thoracoabdominal CT showed a pericardial cyst and benign prostatic hyperplasia. Gastroscopy: Hiatal hernia and erosive duodenitis. Duodenal biopsy: Villous atrophy and intraepithelial lymphocitosis greater than 25%. Colonoscopy: Colonic mucosal edema. Colonic biopsy: Unspecific inflammatory changes, no criteria of microscopic colitis. Because of symptoms, duodenal atrophy and genetic background, gluten-free diet was indicated during 4 months. However patient did not improve with gluten-free diet.

Although in a patient with 20 months diarrhea, weight loss, analytical malabsorption, villous atrophy and positive HLADQ2 a celiac disease can be suspected, the negativity of celiac serology and the absence of response to gluten exclusion from diet discarded that diagnosis. In the diagnosis of such clinical features, a pharmacological etiology should be suspected (8).

Based on the antecedent of prolonged treatment with olmesartan and amlodipine association in the last 5 years and the previously published data (1-6), that treatment was withdrawn and gluten was reintroduced. With that strategy patient significantly improve symptoms in only 2-3 weeks, normalizing bowel movement and recovering weight gradually.

We present a new case of sprue-like enteropathy caused by olmesartan. The physiopathogenic mechanism of the enteropathy due to olmesartan is unknown (2). It is also unknown if there is an immunological basis in individuals genetically predisposed. Our patient has the antecedent of Raynaud’s phenomenon, with positive ANA and carry HLA-DQ2. More studies are required to determine the physiopathology of olmesartan induced sprue-like enteropathy.

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