Coronary and Aortic Involvement as Initial Manifestations of Possible Giant Cell Arteritis in a Patient Without Cardiovascular Comorbidities

To the Editor:

Giant cell arteritis (GCA) is the most common primary vasculitis worldwide, affecting mainly older adult women. GCA affects medium- and large-size arteries, most commonly the extracranial branches of the carotid artery. The gold standard for the diagnosis of GCA is temporal artery biopsy; lesions may include fragmentation of the internal elastic lamina, multinucleated giant cells, and lymphohistiocytic adventitial infiltrate. Inflammation is focal and segmental (“skipped lesions”), which may lead to false-negative biopsy results.

We wish to report a patient who we have diagnosed with possible GCA with coronary involvement and aortitis, whose disease debuted without classical symptoms.

CASE HISTORY

A 68-year-old woman without comorbidities reported progressive dyspnea for several years. A treadmill ergometry was performed, which was positive for ischemia; a coronary catheterization followed showing multivessel disease. Therefore, a coronary bypass grafting was performed. Biopsies were performed of the ascending aorta, the internal mammary artery, and the anterior descending coronary artery; biopsies demonstrated chronic active arteritis and aortitis with rupture of the elastic layer but no giant cells. A magnetic resonance angiography (MRA) of the thoracoabdominal aorta was performed, which demonstrated stenosis of the proximal left subclavian artery; furthermore, acute phase reactants were in the normal range. Subsequently, she remained asymptomatic. Physical examination revealed less pronounced left temporal artery pulse amplitude; however, the biopsy result of this artery was negative. Despite this, the diagnosis of GCA was proposed, and treatment was started with methotrexate 20 mg per week. One year after treatment started, a control MRA was performed; neither narrowing nor dissec tion was evident. Currently, the patient is asymptomatic on weekly methotrexate.

There are few reported cases of acute myocardial infarction resulting from coronary involvement in GCA. Our patient had no cardiovascular comorbidities before coronary involvement suggesting that GCA could have been the culprit. GCA is one of the main causes of aortitis, and this may be the mode of presentation of this disease; however, other specific diagnoses must be considered, which were excluded in our patient. Isolated lymphoplasmaicytic aortitis is associated with aneurysms of the abdominal aorta, and the pathology shows patchy necrosis of the aortic media.

Takayasu arteritis and GCA have similar histopathologic findings; however, Takayasu occurs at a much younger age and clinical features (as limb claudication), which suggests that this diagnosis was not present in our patient. Behcet disease may involve the great vessels, occurs in young patients, and affects mainly the venous system. IgG4-related disease may present with aortitis and coronary involvement; pathological features include a dense lymphoplasmacytic infiltrate that is organized in a “storiform pattern,” but rupture of the elastic layer is not described. Relapsing polychondritis, Cogan syndrome, and ankylosing spondylitis may also present with aortic involvement. Regarding treatment, corticosteroids are the drug of choice, however, we elected to use methotrexate because of this unusual case and to reduce atherosclerotic cardiovascular risk.

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