

Severe Reversible Cardiomyopathy in Primary Sjögren's Syndrome

To the Editor,

Sjögren's syndrome is an autoimmune disorder with a prevalence of 0.5%-1.0%, characterized by progressive destruction of the exocrine glands by lymphocytes. It mainly affects middle-age women, and may be either primary or secondary. The principal clinical manifestations include fatigue, fever, sicca syndrome (dry keratoconjunctivitis and xerostomia), dryness of other mucous membranes, and extraglandular involvement (joint pain, arthritis, Raynaud's syndrome, enlarged lymph nodes, interstitial pneumonitis, vasculitis, nephritis, hepatitis, myositis, neuropathy, and lymphoma). The analyses may reveal nonspecific inflammatory parameters, such as increased erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP), hypergammaglobulinemia-monoclonal gammopathy, and autoimmune markers: antinuclear antibodies (ANA), rheumatoid factor (RF) and specific antibodies against nuclear and cytoplasmic antigens, anti-Ro (SSA), and anti-La (SS-B). The diagnosis is determined on the basis of dry keratoconjunctivitis+xerostomia+positive autoimmune serology. If the serological tests are negative, a positive tissue biopsy is required, with predominant infiltration of T-cells, to establish the diagnosis. Treatment with corticoids (and in more severe cases, azathioprine and cyclophosphamide) is ineffective in sicca syndrome, but effective for the systemic manifestations.

We describe a 74-year-old woman with hypertension. Several weeks earlier, she experienced the onset of progressive asthenia, fatigue, and dyspnea as well as chest pain of nonspecific characteristics, symptomatic hypotension, and syncope; she did not report fever. At the time of admission, she presented systolic blood pressure of 90 mm Hg, electrocardiogram with sinus tachycardia, right bundle-branch block plus left anterior bundle-branch block, normal PR interval, and cardiomegaly and congestion on chest x-ray. The basic analyses obtained the following: creatinine 1.4 mg/dL, Na 121 mEq/L, K 5.6 mEq/L, creatinine clearance 95 mL/min, microalbuminuria 9.4 mg/dL, troponin I 2.4 ng/mL, LDL-C 78 mg/dL, GOT-GTP 239 U/L, GGT 136 U/L, ALP 154 U/L, and LDH 904 U/L, leukocytes $5.9 \times 10^3/\mu\text{L}$, hemoglobin 11 g/dL, platelets $233 \times 10^3/\mu\text{L}$, prothrombin activity 87%, ESR 133 mm in the first hour, and CRP 13.2 mg/dL. All blood cultures and serology tests were negative. Echocardiography at admission showed a nondilated left ventricle, no alterations in regional contractility, and severe, biventricular systolic dysfunction, with a left ventricular ejection fraction (LVEF) of 15%, but

no other findings. No alterations were observed on ventilation-perfusion scintigraphy or chest and abdominal CT scan, and Holter monitoring showed no arrhythmias. Coronary angiography/catheterization showed normal coronary arteries, left ventricle end-diastolic pressure 20 mm Hg, pulmonary capillary pressure 18 mm Hg, and pulmonary artery systolic pressure 30 mm Hg, with no constriction/restriction pattern. Conventional therapy for heart failure was started (ramipril, carvedilol, and digoxin at very low doses due to hypotension-related intolerance), with mild improvement of the analytical parameters and LVEF at 30% in echocardiographic follow-up after treatment, but the patient continued with symptoms. The analyses revealed an increase in inflammatory parameters, with rheumatoid factor 221 U/mL, positive ANA 9.7, IFI 640 with a granular pattern (positive anti-SS-A and anti-SS-B, 995 and 494 U/mL). Because the patient did not meet the criteria of other recognized autoimmune diseases causing autoimmune myocarditis (eg, lupus erythematosus, rheumatoid arthritis, mixed connective tissue disease, and Churg-Strauss syndrome), primary Sjögren's syndrome was diagnosed. Corticoid therapy was initiated, with rapid clinical improvement. At follow-up after 1 1/2 months of treatment, the patient was asymptomatic, with no clinical symptoms of heart failure or new episodes of presyncope-syncope. C-reactive protein had dropped to 1.6 mg/dL, and follow-up echocardiography indicated LVEF of 49%. We concluded with a diagnosis of heart failure due to severe systolic malfunction in the context of myocarditis caused by primary Sjögren's syndrome, with multisystem involvement and good response to corticoid therapy.

Primary Sjögren's syndrome is rarely associated with a heart condition: the usual echocardiographic findings of the disease have been described in a large series in Mexico, and valvular involvement is the most common, with few functional repercussions.¹ The relationship of the disease and its antibodies (which activate M1 muscarinic acetylcholine receptors) with congenital atrioventricular block is widely recognized²; adults appear to be less sensitive, although anti-SSB antibodies have been related to some cases of atrioventricular block in adulthood.³⁻⁵ Autonomic dysfunction in the disease has been discussed more thoroughly in the scientific literature, which includes both favorable and unfavorable studies.⁶⁻⁹ Lastly, several cases of myocarditis have been described in this syndrome,¹⁰⁻¹² either alone or in the context of multisystem involvement, as in our case, with little response to conventional treatment but good response to corticoid therapy. The etiologic mechanism of this myocarditis has been related to a possible leukocytoclastic vasculitis.

We consider that, in cases of severe dysfunction of uncertain etiology, systemic inflammatory activity and a specific autoimmune etiology should always be considered, as the most appropriate treatment may be simple and effective.

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