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Pheochromocytoma as cause of heart failure with recovered ejection fraction.

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Topic(s):
Heart Failure with Reduced Ejection Fraction

Citation:
Case report: A 24-year-old woman with no significant medical history, NYHA I, consults due to the evolution of respiratory symptoms during the past six days worsening during the last 24 hours prior to consult with oppressive chest pain and palpitations. On admission, tachycardia and hypoperfusion are diagnosed and an electrocardiogram was performed showing sinus tachycardia, chest x-rays showed signs of acute pulmonary edema and a transthoracic echocardiogram reported a 20% left ventricle ejection fraction with diffuse hypokinesia, dilated left atrium, normal right atrium and a right ventricle with global hypokinesia and a 12 mm TAPSE; integral valves without pericardial effusion. The patient was admitted into the intensive care unit in cardiogenic shock while presenting cardiorespiratory arrest, which after 26 minutes of advanced resuscitation returned to spontaneous circulation. Extracorporeal membrane oxygenation (ECMO), vasopressors and inotropics were initiated, which were removed after 72 hours due to clinical improvement. A control transthoracic echocardiography was performed, in which, an ejection fraction of 44% was found, left ventricle with normal diameter, parietal thickness with concentric remodeling and myocardial contractility with diffuse hypokinesia. With the patient's clinical picture and evolution, viral myocarditis was considered as the first diagnostic option. Due to clinical improvement and recovery of echocardiographic parameters, the patient continued the treatment in an outpatient setting. Two weeks later, the patient checked into the emergency room with headache, arterial hypertension and palpitations. In this opportunity a tumor producing catecholamines was suspected, a metanephrines urine test was requested testing positive afterwards, a contrasted abdominal resonance was performed finding a lesion compatible with pheochromocytoma in the left adrenal gland. A cardiac resonance was carried out as well, in which produced no signs of acute myocarditis or its sequelaes, no ischemia or infiltrative diseases. A normal valvular function was also evident, thus demonstrating that the origin of the patient's heart failure was pheochromocytoma. Patient underwent a left adrenalectomy and three months after the procedure an echocardiography was performed, reporting an ejection fraction of 60%, left ventricle of normal size and thickness with global and normal segmental myocardial contractility.

Discussion: Improved left ventricular function occurs in up to 40-50% of patients with heart failure due to acute myocarditis, peripartum cardiomyopathy, some forms of chemotherapeutic cardiac dysfunction, and tachycardia-induced cardiomyopathy. Although the presence of cardiogenic shock by pheochromocytoma, as occurred in our patient, is highly unusual with an incidence of 0.8% per 100,000 people per year in non-family pheochromocytomas. A high rate of suspicion must be at scene since it may be a reversible cause of heart failure.
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