Chronic Constrictive Pericarditis

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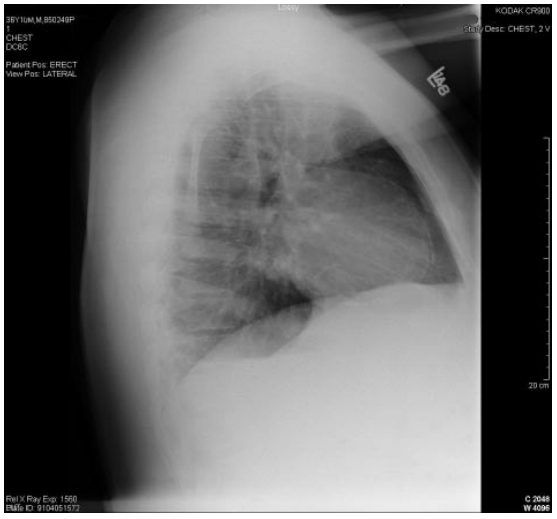

A

B

A 36-year-old man presented with complaints of progressive swelling of both extremities and the abdomen for 1 year along with shortness of breath and orthopnea. He had presented previously with similar complaints and was diagnosed with congestive heart failure based on a physical examination that revealed elevated jugular venous pressure, massive ascites, and bilateral pedal edema; an elevated brain natriuretic peptide level at 149 pg/mL; and a transthoracic echocardiogram (TTE) that showed a left ventricular ejection fraction of 45% to 50%. At initial diagnosis, an additional diastolic heart sound was heard on auscultation but was presumed to be an S_3. He was treated with aggressive diuresis, to which he symptomatically responded, and was discharged on metoprolol and enalapril. He was subsequently readmitted with similar complaints.

During his current admission, review of his chest radiograph suggested pericardial calcification extending around the heart (**Image A**), which was confirmed by computed tomography scanning of the thorax that revealed a thickened and calcified pericardium (**Image B**). The additional diastolic sound on auscultation was found to be a pericardial knock. He underwent repeat TTE with tissue Doppler followed by cardiac catheterization, which revealed constrictive physiology (eg, respiratory variation of septal motion, Kussmaul's sign) and a small pericardial effusion, confirming the diagnosis of constrictive pericarditis. He underwent a pericardiectomy and completely recovered with resolution of his symptoms and edema.

This patient's clinical presentation suggested congestive heart failure, which was supported by his response to diuresis. However, symptoms and signs of right heart failure may be a common presentation of constrictive pericarditis.[1] Chronic constrictive pericarditis can be recognized by a plain chest radiograph. The presence of a calcified ring around the heart is best seen on lateral or anterior oblique projections and strongly suggests pericardial constriction in patients with symptoms of right heart failure.[2]

REFERENCES

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2. Maisch B, Seferović PM, Ristić AD, et al. Guidelines on the diagnosis and management of pericardial diseases executive summary; The Task force on the diagnosis and management of pericardial diseases of the European society of cardiology. Eur Heart J 2004;25:587–610.

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