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IMAGES IN CARDIOLOGY

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Effusive constrictive pericarditis secondary to undifferentiated pericardial sarcoma

A 39-year-old white male presented with a two day history of dull left-sided chest pain and shortness of breath, preceded by three weeks of lethargy. Direct questioning revealed no other symptoms, relevant past medical history, drug history or foreign travel. His blood pressure was 150/110 mm Hg with a pulse rate of 110 beats/min regular. Oxygen saturation was 97% (room air) and his temperature was 37.4°C. Jugular venous pressure was raised with positive Kussmaul's sign, pulsus paradoxus and a loud pericardial rub. Respiratory and abdominal examinations were normal with no lymphadenopathy. Electrocardiography confirmed sinus tachycardia and chest radiography showed cardiomegaly only. Trans-thoracic echocardiography revealed a large circumferential pericardial effusion. (panel A). A mass with a degree of loculation could be seen arising from the lateral wall of the left ventricle (panel B). Initially there was good biventricular function with no echocardiographic signs of tamponade. All blood tests including troponin were normal except for C reactive protein (91 mg/l).

Despite pericardiocentesis the effusion rapidly reaccumulated and the patient's shortness of breath progressed. Surgical drainage removed "two kidney dishes" of semi-solid matter. When the

2 cm thick pericardium was incised the central venous pressure dropped from 31 to 13 mm Hg. Histology showed this to be an undifferentiated sarcoma, with no evidence of more specific differentiation from immunostaining or from molecular genetics for fusion transcripts (panel C). Pre-operative computed tomographic scanning (panel D) and clinical findings suggests that the most likely origin is the heart with 12 pulmonary metastases and normal abdomen and pelvis. Unfortunately,

despite full intensive care and one infusion of doxorubicin, the patient died of progressive low output multi-organ failure.

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