Cardiac tamponade as the initial manifestation of systemic lupus erythematosus in a young female patient

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A 21-year-old woman with a medical history of epilepsy was admitted to our hospital because of progressive chest pain and dyspnoea for a few days. The chest pain fluctuated with breathing and was aggravated in a supine position. On physical examination a very dyspnoeic woman with a blood pressure of 105/65 mmHg and a heart rate of 140/min was seen. Pulsus paradoxus was absent and the jugular venous pressure was not increased. Besides sinus tachycardia, the electrocardiogram was normal. The AP chest X-ray revealed a very large heart (cardiothoracic ratio 0.74) without pulmonary oedema or infiltrates. Transthoracic echocardiography (figure 1) showed cardiac tamponade with massive pericardial effusion and a swinging heart. Pericardiocentesis was urgently performed, removing 750 ml of haemorrhagic pericardial fluid, immediately alleviating the patient's symptoms. During the next five days the remaining small amount of pericardial effusion disappeared spontaneously. Because of positive antinuclear and anti-DNA antibodies, systemic lupus erythematosus (SLE) was diagnosed. After treatment with prednisone (40 mg daily), the anti-DNA antibody titre decreased from 296 IE/ml to 121 IE/ml within one month while the pericardial fluid did not return.

Pericardial effusions are common among patients with SLE, occurring in up to 50% of patients somewhere in the course of the disease. Cardiac tamponade, however, is rare, occurring in less than 1% of SLE patients.¹ Because acute management by pericardi-

Figure 1. Transthoracic echocardiogram (apical four-chamber view) showing massive pericardial effusion. PE=pericardial effusion, LV=left ventricle, RV=right ventricle.

centesis can be life-saving, cardiac tamponade should be ruled out in every SLE patient presenting with dyspnoea or chest pain. ■

Reference

- 1 Cauduro SA, Moder KG, Tsang TSM, Seward JB. Clinical and echocardiographic characteristics of hemodynamically significant pericardial effusions in patients with systemic lupus erythematosus. *Am J Cardiol* 2003;92:1370-2.

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