Aortic dissection after sudden position change

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A 42-year-old obese, hypertensive Caucasian man was urgently transferred to hospital from an outpatient clinic due to suspected acute coronary syndrome (ACS). On admission, he complained of dull retrosternal discomfort, accompanied by rapid breathing and perspiration. Blood pressure was 146/59 mmHg. Electrocardiogram showed inverted T-waves in leads V5 and V6. The level of creatine kinase (CK)-MB was moderately elevated but the levels of high-sensitivity cardiac troponin and CK were within reference ranges. On transthoracic echocardiography (TTE) severe aortic regurgitation (AR) and a suspicion of intimal flap in the aortic root were detected (Fig. 1A, B). Immediate computed tomography angiography (CTA) confirmed Stanford type A dissection affecting the entire aorta from the aortic root to both iliac arteries, spreading also to the brachiocephalic trunk (Fig. 1C). The patient underwent an immediate Bentall–De Bono procedure. The right common carotid artery access was used for arterial cannulation, and selective antegrade cerebral perfusion with mild (25°C–28°C) systemic hypothermic circulatory arrest was used. After completing the replacement of the aortic valve and ascending aorta, the arterial cannulation was switched to a Dacron prosthesis in order to achieve better reperfusion and reduce the risk of multi-organ ischaemia. Further course was uneventful. The limb ischaemia was relieved, and no neurological deficits occurred. The cardiac function was normal. CTA revealed normal function of the ascending aortic prosthesis and residual dissection of the remaining aorta (Fig. 1D). No complications occurred at one-year follow-up. It is crucial to differentiate the cause of chest pain in patients referred with a working diagnosis of ACS. The detailed history of rapid onset of symptoms after postural change, coincidence of lower limb ischaemia and AR murmur, together with the result of immediate TTE totally changed the clinical course. A CT scan, instead of an initially planned coronary angiography, was immediately performed and urgent cardiac surgery was necessary. Bedside TTE screening, particularly in patients with atypical presentation, is indicated according to the ACS guidelines. Aortic dissection remains a rare but important, life-threatening condition that may mimic several diseases, depending on dissection localisation. Rapid treatment prevented the patient from further complications, including tamponade or vital organ ischaemia. Stenting of the remaining aortic dissection should be considered, and optimal antihypertensive treatment and follow-up are mandatory.

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