Cardiac tamponade following inadvertent thrombolysis in acute pericarditis

A 41-year-old smoker presented with acute retrosternal chest pain of 5h duration. He had mild fever 1 week prior to admission. The ECG was interpreted as acute ST-segment elevation anterior wall myocardial infarction. Intravenous streptokinase was administered; 2h after thrombolysis, he developed breathlessness and worsening chest pain. On examination, he had tachypnoea, sinus tachycardia, blood pressure of 90/70 mm Hg and distended neck veins with Kussmaul’s sign and pericardial friction rub. Review of the initial ECG (figure 1A) showed sinus tachycardia, PR-segment depression, diffuse ST-segment elevation in chest leads, except in lead aVR, and absent reciprocal ST-segment depression; 60-min after thrombolysis, ECG showed persisting ST-segment elevation (figure 1B). Transthoracic echocardiogram (figure 1C, apical 4-chamber view) showed massive pericardial effusion and a large 10×5 cm coagulum in the infero-posterior pericardial space (figure 1D, modified apical 4-chamber view) (online supplementary video file). Cardiac tamponade was confirmed by Doppler and M-mode assessment. Emergency subxiphoid, percutaneous pericardiocentesis was done and 200 mL haemorrhagic fluid was aspirated. Patient improved clinically. A whole fresh blood transfusion was given to correct a 40% fall in haematocrit. A pericardial window was created surgically due to recurrence. He is doing well at 1-year follow-up.

Rajesh Gopalan Nair, Sandeep Rajasekharan, Mangalath Narayanan Krishnan
Department of Cardiology, Government Medical College, Kozhikode, Kerala, India
Correspondence to Dr Sandeep R, Department of Cardiology, Government Medical College, Kozhikode, Kerala 673008, India; sandeepdr1981@gmail.com
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Figure 1 (A) ECG showing sinus tachycardia, diffuse ST-segment elevation, except in aVR and PR-segment depression consistent with pericarditis. (B) ECG after thrombolysis, showing persisting ST-segment elevation, PR-segment depression. (C) Trans-thoracic echocardiography (Apical 4-chamber view) showing massive pericardial effusion. (D) Trans-thoracic echocardiography (Modified Apical 4-chamber view) showing large pericardial effusion and 10×5 cm coagulum in the infero-posterior pericardial space.