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.

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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.