

Figure 1. PA chest X-ray showed enlarged cardiac silhouette, blunted costophrenic sinuses, and consolidation of the left lung

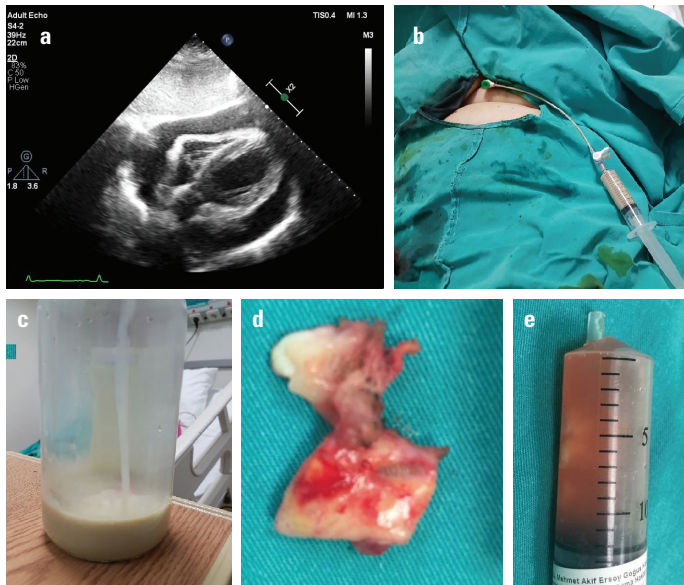


Figure 2. (a) Transthoracic echocardiography (subcostal view) showed massive pericardial effusion. (b) A 6F sheath was placed into the pericardial cavity via the subxiphoid approach. (c) A total of 300 mL of chylous effusion was drained. (d) 3x2 cm of thickened pericardium was excised during subxiphoid pericardiostomy. (e) Serous effusion was drained during subxiphoid pericardiostomy

revealed decreased breath sound at bases and decreased heart sounds. ECG showed sinus tachycardia. Chest X-ray revealed enlarged cardiac silhouette, blunted costophrenic sinuses, and consolidation of the left lung (Fig. 1). Echocardiography demonstrated massive pericardial effusion causing tamponade (Fig. 2A). Percutaneous drainage via subxiphoid puncture was attempted. After several failed punctures, a thick and white fluid was aspirated (Video 1). After confirmation of the intrapericardial position using agitated saline, a 6F sheath was placed (Fig. 2B), and 300 mL of fluid was drained (Fig. 2C). Biochemical evalua-

tion of the fluid revealed that the triglyceride level was above the highest limit. The patient was hemodynamically and clinically stable during 3 days of hospitalization. Ten days after discharge, the patient was readmitted to the emergency department due to dyspnea. Echocardiography showed pericardial effusion and tamponade. The cardiac team decided to perform a pericardial window (subxiphoid pericardiostomy). Surgery revealed a thickened pericardium and serous effusion (Fig. 2D and E). The patient died 2 months after the procedure due to pneumonia. Chylous pericardial effusion is the rarest cause of fluids causing tamponade. It usually occurs after surgery or trauma due to thoracic duct injury. In our case, we believe that the invasion of carcinoma in the thoracic duct or small lymphatic channels of the pericardium caused chylous effusion.

Video 1. A thick and white fluid was aspirated during puncture.

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Effusive constrictive pericarditis diagnosed with PET/CT and treated medically

An 80-year-old woman presented to the emergency department due to dyspnea for 3 weeks. She was admitted to the hospital with a diagnosis of massive pleural effusion. Thoracentesis revealed a transudative effusion. Adenosine deaminase level in the fluid was 12 U/L (normal range, 0–40 U/L), and erythrocyte sedimentation rate was 94 mm/h. Control chest X-ray examination revealed cardiomegaly (Fig. 1). Transthoracic echocardiography revealed hyperechogenic pericardial effusion (Fig. 2, Panels A and B; Videos 1 and 2). Inferior vena cava plethora with blunted respiratory response was present (Fig. 2, Panel C). Significant respiratory variation in mitral inflow was observed (Fig. 2, Panel D). PET/CT revealed 20 mm of pericardial effusion and increased FDG uptake in the pericardium with an SUVmax of 19.3 (Fig. 2, Panels

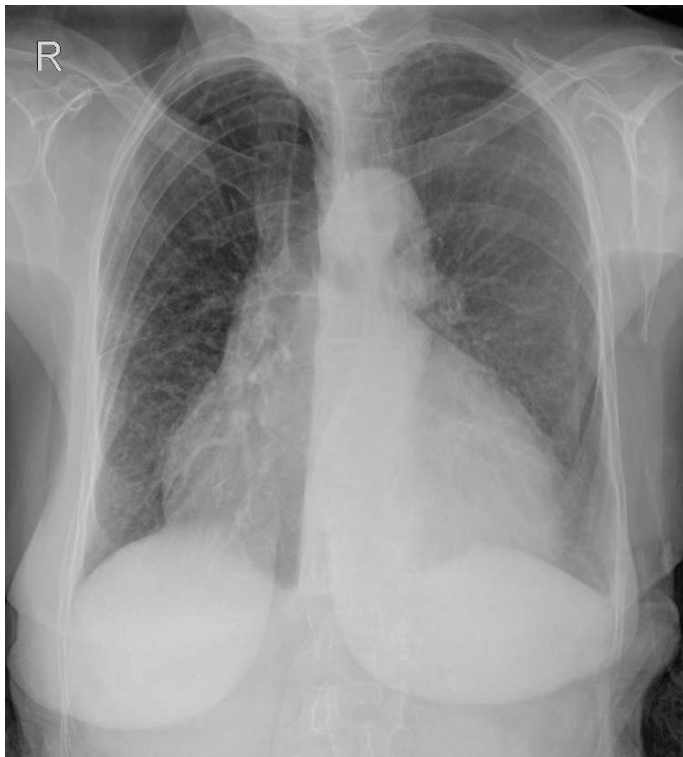


Figure 1. Posteroanterior chest X-ray showed cardiomegaly

E and F). Based on these findings, tuberculous effusive constrictive pericarditis was the preliminary diagnosis. The patient was referred to a pulmonologist, and anti-tuberculosis therapy was initiated. The patient was prescribed isoniazid, rifampicin, pyrazinamide, and ethambutol for 2 months and isoniazid and rifampicin for additional 7 months. Colchicine was started during the third month and continued till the end of anti-tuberculosis therapy. Ibuprofen was prescribed during the third month and continued for 1 month. Symptoms of the patient improved, and pericardial effusion resolved during follow-up (Fig. 2, Panels G and H; Videos 3 and 4). Inferior vena cava plethora and mitral inflow were normalized (Fig. 2, Panels I and J). PET/CT confirmed the resolution of pericardial effusion and normalized FDG uptake in the pericardium. No complication was observed at 1 year of follow-up.

Effusive constrictive pericarditis is usually associated with tuberculosis. Medical therapy including anti-tuberculosis and anti-inflammatory agents should be attempted before performing a high risk surgery such as pericardiectomy.

Video 1. TTE, apical four chamber view, massive hyperechoic pericardial effusion

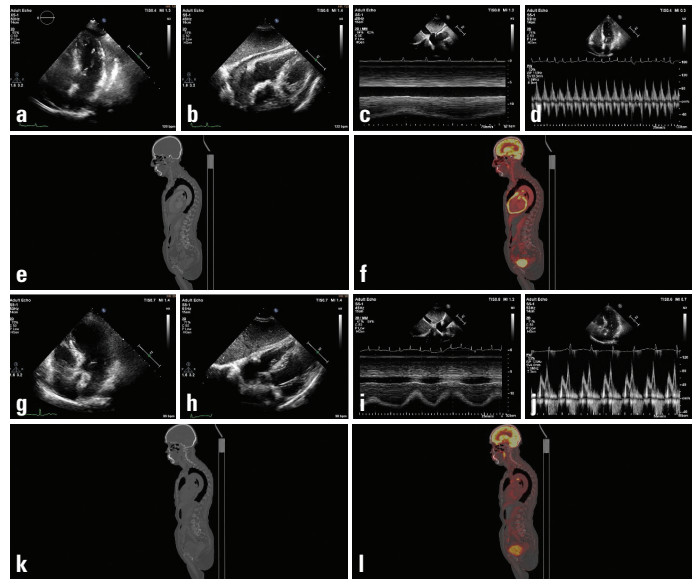


Figure 2. (a) TTE, apical four chamber view, massive hyperechoic pericardial effusion (b) TTE, subcostal view, pericardial effusion (c) TTE, M mode, inferior vena cava plethora (d) TTE, pulse wave Doppler, significant respiratory variation in mitral inflow (e) CT demonstrated 20 mm of pericardial effusion. (f) PET/CT showed increased FDG uptake in the pericardium with an SUVmax of 19.3. (g) TTE, apical four chamber view, resolved pericardial effusion after treatment (h) TTE, subcostal view, resolved pericardial effusion after treatment (i) TTE, M mode, collapse of inferior vena cava with inspiration after treatment (j) TTE, pulse wave Doppler, normalized mitral inflow after treatment (k) CT confirmed resolution of pericardial effusion after treatment. (l) PET/CT confirmed normalized FDG uptake in pericardium after treatment

Video 2. TTE, subcostal view depicted constrictive pericardial effusion

Video 3. TTE, resolved pericardial effusion after treatment

Video 4. TTE, resolved pericardial effusion after treatment

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