

# Acute purulent pericarditis complicated by cardiac tamponade in a patient with human immunodeficiency virus

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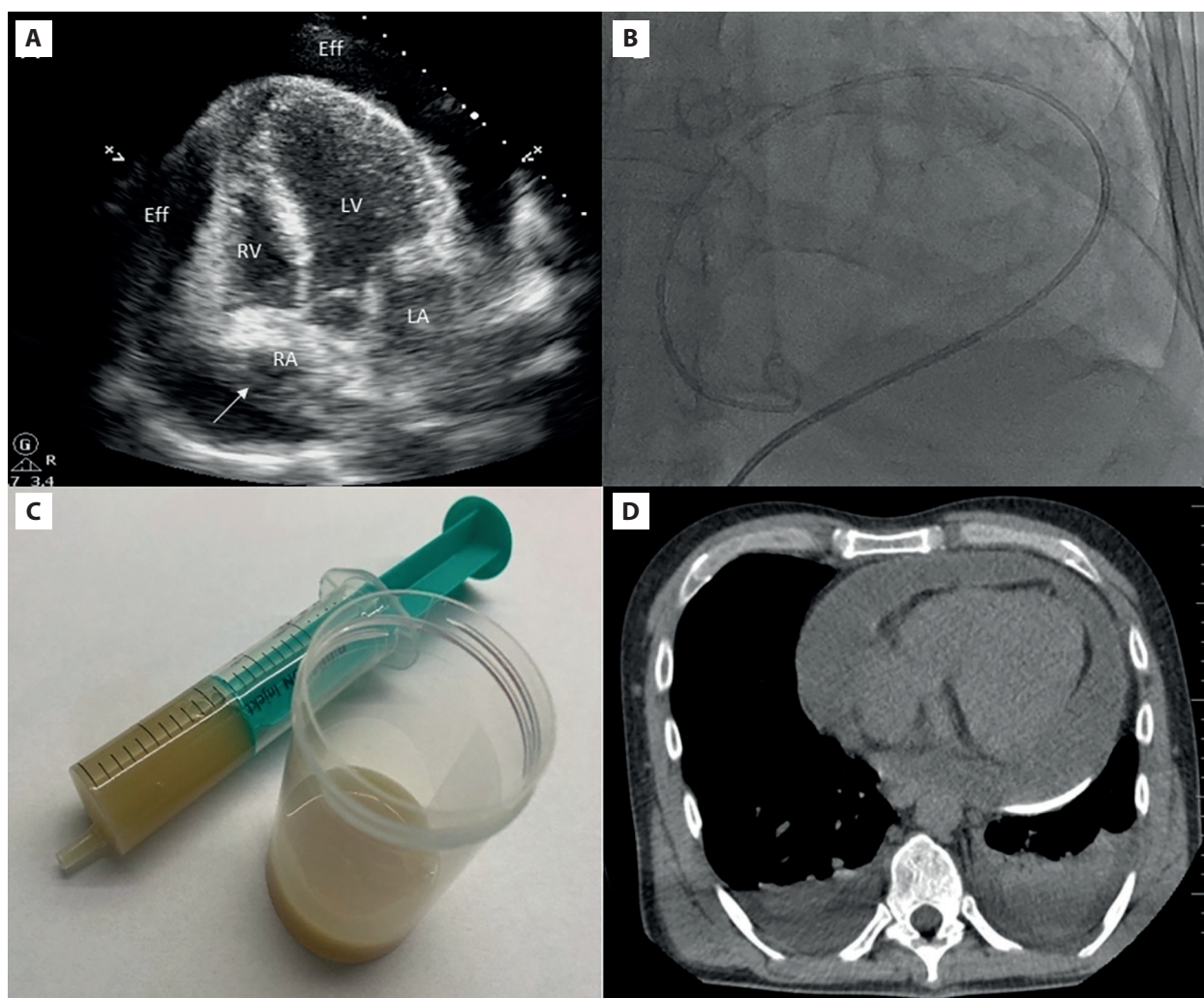
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A 42-year-old male with a positive history of drug abuse was admitted to the cardiology department on account of signs and symptoms of cardiogenic shock and echocardiographic features of life-threatening myocardial tamponade (Figure 1A). The patient denied any chronic conditions. The patient was urgently subjected to percutaneous pericardiocentesis performed through the infrasternal angle at the local catheterization laboratory (Figure 1B), allowing for slow drainage of 700 ml of dense turbid effusion via a pig-tail catheter (Figure 1C). Computed tomography of the chest did not show significant inflammatory abnormalities within the lung parenchyma, while the normal location of the pericardial drain and significant deposits of fluid in the pericardial and pleural cavities were confirmed (Figure 1D). Microbiological analysis of the purulent effusion (Figure 1C) indicated growth of *Haemophilus influenzae*, and subsequent serologic tests excluded tuberculosis infection but confirmed the presence of human immunodeficiency virus (HIV). The patient finally admitted having undergone an incomplete antiretroviral therapy for acquired immunodeficiency syndrome.

From the onset of in-hospital stay, the patient received complex antibiotic therapy comprising intravenous ceftriaxone in com-

bination with ciprofloxacin for 14 days, which was consistent with subsequent antibiogram, leading to a gradual decrease in inflammatory parameters. During the in-hospital stay, several episodes of atrial fibrillation were reported, which led to the decision to perform pharmacological cardioversion with amiodarone. As a result of the applied treatment, the patient's general condition improved, and he received further cardiac follow-up on an outpatient basis.

Recommendations included a diuretic and colchicine, proton pump inhibitor, thromboprophylaxis, antiarrhythmic treatment for one month, and resumption of retroviral therapy. Given the symptoms of gastritis, non-steroidal anti-inflammatory drugs were discontinued. The follow-up visit at 1 month showed mild features of pericardial constriction on transthoracic echocardiography with a small amount of fluid behind the right ventricle and no pleural effusion while the patient remained asymptomatic. The prognosis of pericarditis strictly depends on the cause of infection. Untreated bacterial pericarditis is associated with a high mortality rate, while cardiac tamponade and constrictive pericarditis are commonly observed complications [1, 2]. Diagnosis of purulent pericarditis is extremely rare and should also be considered in the context of HIV.



**Figure 1.** Diagnostics and treatment of cardiac tamponade in the course of bacterial pericarditis in a patient with the human immunodeficiency virus. **A.** Transthoracic echocardiography; pericardial effusion of 28 mm with echocardiographic signs of cardiac tamponade (arrow: compression of the right atrium by effusion). **B.** Fluoroscopy with a pig-tail catheter introduced to the pericardial cavity via the infrasternal angle. **C.** Creamy effusion drained from the pericardial cavity. **D.** Computed tomography of the chest with signs of residual pericardial and bilateral pleural effusion and no overt pathological lesions within the lung parenchyma and mediastinum

Abbreviations: Eff, effusion; RV, right ventricle; RA, right atrium; LV, left ventricle; LA, left atrium

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