



## IMAGES IN INTENSIVE MEDICINE

### Idiopathic pericarditis by cholesterol crystals<sup>☆</sup>

### Pericarditis idiopática por cristales de colesterol



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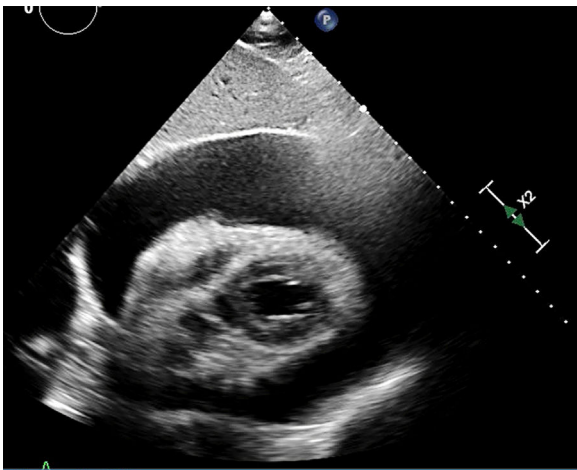


Figure 1

Cholesterol-induced pericarditis is a rare entity. We hereby present the case of an 81-year-old male admitted to our ICU due to severe pericardial effusion with early signs of hemodynamic compromise (Fig. 1). Diagnostic and therapeutic pericardiocentesis was performed that improved the patient's symptoms and his hemodynamic parameters. Around 1500 mL of a yellowish fluid were obtained (Fig. 2). Cholesterol crystals, lipid micelles, and inflammatory cells

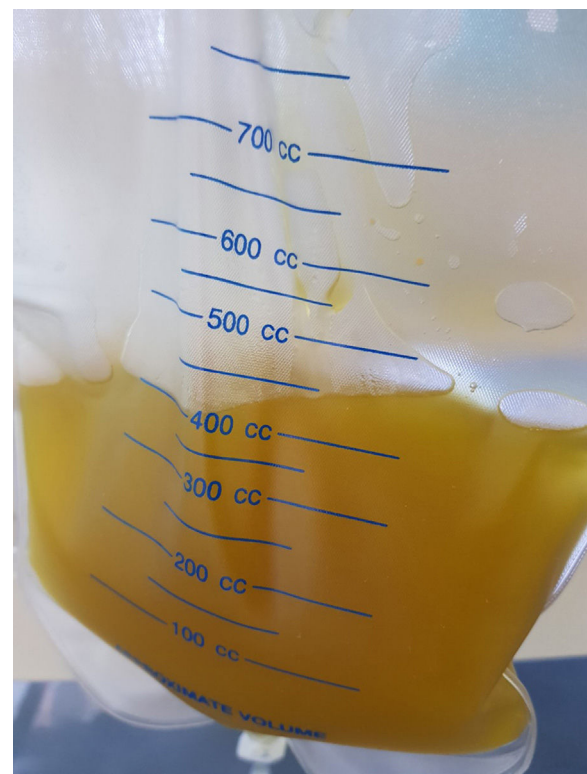


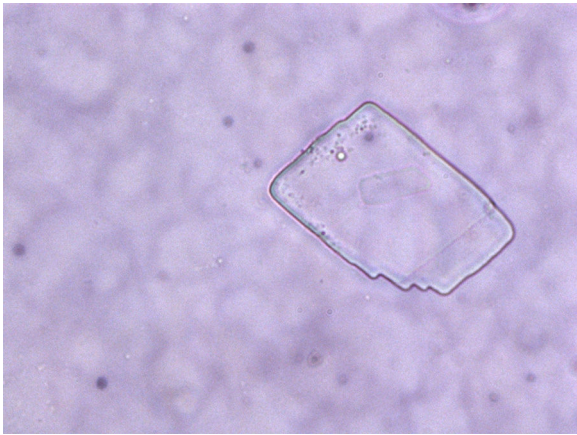
Figure 2

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were observed under the optic microscope (Fig. 3). The concentration of cholesterol in the pericardial fluid was higher compared to the patient's blood. Tuberculosis disease and hypothyroidism, rheumatoid arthritis and other



**Figure 3**

systemic infections and autoimmune diseases were all ruled out. Cholesterol crystals are characteristic here and they are indicative of the chronicity of effusion and persistent inflammation of the pericardium. The concentration of cholesterol is usually the same or higher compared to blood.

Treatment depends on the underlying disease. In the presence of hemodynamic compromise, we should always perform pericardiocentesis. In most cases, there will be relapses and pericardiectomy will be required.

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### **Conflicts of interest**

None reported by the authors.

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