Abstract: 90

Cardiac tamponade as a complication of pancreatico-pericardial and biliary-pericardial fistulas

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Imaging: Pericardial Disease

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Introduction: Pericardial effusion is a common finding in the echocardiographic examination, but pancreatico-pericardial and particularly - biliary-pericardial fistulas complicated by cardiac tamponade are extremely rare.

Case report: A 52-year-old man with no history of cardiac disease was admitted to the hospital for worsening dyspnoea and palpitations. He had a history of alcohol abuse and recurrent pancreatitis complicated by pancreatic cysts. He denied recent infectious symptoms. On physical examination the patient showed tachypnoe, tachycardia, hypotension, crackles and wheezes. Chest X-ray documented cardiomegaly - initially interpreted as cor bovinum or pericardial effusion, as well as bilateral pleural effusion and congestion. The transthoracic echocardiography (TTE) revealed large pericardial effusion with systolic right atrial and diastolic right ventricular collapses. Urgent fluoroscopic-guided pericardiocentesis with the removal of 2 litres of haemorrhagic fluid was done with subsequent placement of pericardial drainage. The patient was hemodynamically stabilized and he reported an immediate relief of symptoms. Despite an apparently effective drainage repeated TTEs performed within six days after admission documented ongoing fluid accumulation with the possibility of loculated pericardial fluid. As fluid analyses showed high and markedly increasing amylase levels chest and abdominal computed tomography (CT) was performed. CT revealed 3 loculated fluid collections in the mediastinum and pericardial space. The one located below left atrium reached the head of the pancreas (figure). The patient was referred to the surgery department. Next CT and magnetic resonance cholangiopancreatography reinforced the hypothesis of pancreatico-pericardial fistula, whereas the endoscopic retrograde cholangiopancreatography (ERCP) showed a fistulous tract leading from the left bile duct to the left hemidiaphragm region. During ERCP 2 plastic stents were inserted into the main pancreatic duct and left bile duct, respectively. Additionally CT-guided percutaneous transhepatic drainage of the retroperitoneal fluid collection in the mediastinum was performed. Next TTE showed only little amount of pericardial effusion. The patient returned to his baseline functional status.

Discussion: Fistulous connections between the pancreatico-biliary tree and pericardium have only been described in few patients. The symptoms can be variable. Our patient presented with dyspnoea and - at that time - had no abdominal symptoms. High amylase levels in the pericardial fluid strongly suggested a pancreatic origin of the effusion.

Conclusions: We report an uncommon case of cardiac tamponade. It should remind of multiple causes of pericardial effusion and the usefulness of multimodality imaging in both the diagnostic work-up and therapeutic interventions.
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