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LETTER TO THE EDITOR

Cholangiocarcinoma Diagnosed with Pericardial Tamponade: A Diagnostic Challenge

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Dear Editor,

Cholangiocellular carcinoma (CCA) is a rare primary liver tumor originating from bile ducts.[1] The aim of this letter is to highlight an atypical presentation of CCA, which was diagnosed through pericardial fluid analysis despite the absence of symptoms and clinical findings in the early stages.

A 64-year-old male patient with no known medical history other than diabetes mellitus (DM) presented to the emergency department with complaints of fatigue and jaundice of three days' duration. His history revealed that his symptoms had developed a few days after starting a recently prescribed metformin+vildagliptin regimen. On examination, he was found to be confused and hypotensive. Laboratory tests revealed elevated transaminase levels (ALT=1311; AST=1199 U/L), impaired renal function (glomerular filtration rate=18 ml/dk/1.73m^2), hyperbilirubinemia (total=7.7, direct=5.5 mg/dL), and acidosis.

The patient was admitted to the intensive care unit (ICU) with a pre-diagnosis of acute toxic hepatitis. He was intubated due to respiratory distress and high vasopressor requirements. Transthoracic echocardiography (TTE) performed to investigate the etiology of shock in the patient with fluid-refractory hypotension revealed the presence of pericardial effusion (PEEF) of 6.5 cm with signs of tamponade, prompting an urgent pericardiocentesis. A large pericardial effusion was confirmed by chest tomography performed in the emergency department. Approximately 1000 mL of hemorrhagic effusion was drained, and cytopathology was performed on the sample obtained. Further investigations were initiated to exclude other potential causes of liver failure.

During follow-up, the patient's transaminase levels declined, and viral hepatitis serology and autoimmune markers were negative. Non-contrast tomography was performed due to acute renal failure. Abdominal CT and USG showed a normal gallbladder, intrahepatic and extrahepatic bile ducts, and only a small amount of perihepatic fluid. However, bilirubin continued to rise rapidly. A control TTE showed a 2 cm PEEF without evidence of tamponade. Cytopathological analysis of the pericardial fluid revealed a poorly differentiated CCA. However, before anatomical and histological classification and metastatic screening could be performed, the patient died in the ICU due to multiple organ failure.

CCA is usually asymptomatic in the early stages, leading to late diagnosis and poor prognosis.[2] The incidence of CCA has been increasing in recent years, and patients typically present to healthcare facilities with symptoms such as abdominal pain, weight loss, pruritus, and changes in stool and urine color.[3] Our patient, however, had no complaints other than fatigue and new-onset jaundice. The acute onset of symptoms after a new drug regimen was initially considered a pre-diagnosis of toxic hepatitis. However, the presence of massive hemorrhagic PEEF necessitated further investigations for differential diagnosis.

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PEEF can be seen in aggressive malignancies, but it is extremely rare in CCA.[4–6] Malignant PEEF may occur with cardiac tamponade, as seen in our patient.[6] Interestingly, despite a very short symptom onset, our patient had pericardial metastases of CCA.

In conclusion, we believe that this case is important to emphasize that poorly differentiated CCA can cause distant metastases without symptoms.

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