

Acute pancreatitis and rhabdomyolysis: a rare association

Dear Editor,

A 45-year-old patient presented to our department with acute, consistent abdominal pain, centered in the epigastrium and reflecting to the back for two days. The patient had a history of smoking, but he denied any alcohol or drug consumption. Palpation revealed muscle tension and tenderness on the epigastrium. Chest x-ray and electrocardiogram were normal. Laboratory findings were indicative of acute pancreatitis, with elevated levels of pancreatic enzymes [serum amylase: 1444 U/L, with upper limit of normal (ULN): 90 U/L and urine amylase: 2595 U/L (ULN: 321 U/L)]. Though, abdominal ultrasound and laboratory findings showed neither lithiasis in the biliary tree nor hypertriglyceridemia or hypercalcemia. Abdominal computed tomography (CT) revealed swelling of the pancreas and necrotic lesions with pancreatic effusions. Abdominal magnetic resonance imaging and magnetic resonance cholangiopancreatography (MRI/MRCP) confirmed the diagnosis of severe necrotic pancreatitis, while there was no image of obstruction or distention of the biliary or pancreatic duct.

On the third hospitalization day, laboratory tests also revealed the presence of severe, asymptomatic rhabdomyolysis; serum creatine phosphokinase (CPK): 21,161 U/L (admission CPK: 194 U/L; ULN: 170 U/L), while myoglobin levels were 195.5 µg/L (ULN: <155). Heart examination was conducted; cardiac ultrasound showed normal ejection fraction (EF >60 %), without pericardial effusion, while serum troponin levels ruled out a heart condition. The co-existence of acute pancreatitis with rhabdomyolysis led us to investigate our patient for miscellaneous causes including infections by parasites, bacteria, and viruses. All tests came negative, even for neoplasia or IgG4 related pancreatitis.

After ten hospitalization days, the patient was discharged with hematological and biochemical parameters almost normalized. On the last follow-up, MRI/MRCP showed significant improvement. Apart from these, clinical examination and laboratory data returned to normal, including levels of serum CPK.

The presence of acute pancreatitis with rhabdomyolysis is very rare, and it has been referred in the context of bacterial or viral infections, alcohol or drug abuse. The development of rhabdomyolysis as a result of acute pancreatitis has been reported in patients with severe form of the disease¹. Interestingly, it has been suggested that when rhabdomyolysis presents later in the course of the disease, could as well be attributed to pancreatitis per se². The exact pathogenesis has not been clarified, but it seems that pancreatitis supplies the body with a noxious combination of digestive enzymes, inflammatory mediators, and cellular debris probably responsible for the rhabdomyolysis³. In conclusion, acute pancreatitis can rarely be implicated with rhabdomyolysis, even when excluding any other common underlying etiologies.

Keywords: Acute pancreatitis, rhabdomyolysis, complications

Conflict of interest

None.

References

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