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Case Report

Ischemic Necrotizing Pancreatitis

Two Case Reports and Review of the Literature

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Summary

Pancreatic ischemia is a very rare etiology of clinical acute pancreatitis, complicating cardiac surgery, hemorrhagic shock, and transplantation of the pancreas. In this article, we present two patients with acute ischemic necrotizing pancreatitis, complicating a generalized atheromatous disease with extensive lesions in the splanchnic circulation (patient 1) and repair of a descending thoracic aortic aneurysm (patient 2). Diagnostic approach and management of ischemic necrotizing pancreatitis are discussed.

Key Words: Necrotizing pancreatitis; ischemic pancreatitis; necrosectomy; ischemia/reperfusion injury; pancreatic fistula.

Introduction

Pancreatic ischemia is an extremely rare and often debated etiology of clinical acute pancreatitis (AP). Ischemic injury to the pancreas has been proposed to occur in specific clinical settings, such as cardiopulmonary bypass *(1)*, hemorrhagic shock *(2)*, and transplantation of the gland *(3)*. Necrosis of pancreatic and peripancreatic tissues is recognized as a key element in the evolution of the disease from mild to severe. There is strong experimental and suggestive clinical evidence that ischemia, in conjunction with reperfusion injury of the pancreas, plays an important role in the development of AP both of the edematous and necrotizing forms *(1,4–12)*.

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Well-documented reports of patients with acute ischemic necrotizing pancreatitis are very unusual; because of the rarity of this disorder, we present our experience with two such patients in the last 13 yr with a pertinent, brief review of supporting data in the literature.

Patient 1

A 51-yr-old man was admitted with a 2-mo history of repeated episodes of postprandial abdominal pain. Past medical history included hypertension, non-insulin-dependent diabetes mellitus, and thrombocytosis. He was afebrile, and only mild abdominal tenderness was noted. Laboratory evaluation revealed a white blood count of 14,000/mm^3, platelet count of 1×10^6/mm^3, and normal serum amylase activity and liver function tests.

Computed tomography (CT) showed multiple splenic and kidney infarcts, and angiography demonstrated high-grade stenosis of the celiac trunk with proximal occlusion of the hepatic artery, occlusion