

AAST grade III pancreatic injury following blunt abdominal trauma

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Isolated pancreatic trauma with major pancreatic duct disruption is a rare finding; it can present with equivocal clinical signs. Serum amylase levels and diagnostic contrast-enhanced computed tomography can facilitate the diagnostic process.

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Case report

A 34-year-old man presented after sustaining blunt trauma by a baseball bat to the epigastrium. Clinical examination revealed mild epigastric tenderness, associated with a tachycardia and a normal blood pressure. No other injuries were noted. An erect chest radiograph excluded the presence of free subdiaphragmatic air. He was initially managed conservatively with serial abdominal examinations and monitoring of vital signs. At 48 hours post injury, he had a persisting tachycardia, unresolving focal epigastric tenderness and a raised serum amylase level of 3 300 IU/l.

A contrast-enhanced computed tomography (CT) scan of the abdomen and pelvis confirmed an American Association for the Surgery of Trauma (AAST) grade III pancreatic injury (complete transection of the distal body of the pancreas) (Fig. 1a). A localised fluid collection was identified in the lesser sac.

The patient proceeded to theatre and underwent exploratory laparotomy. The radiological diagnosis was confirmed intra-operatively (Fig. 1b), and a distal pancreatectomy and splenectomy were performed without any complication.

Discussion

Pancreatic trauma is uncommon, and when it occurs is often associated with other injuries (in up to 98% of cases).¹⁻³ Overall morbidity rates following pancreatic injury range from 30% to 70% and are primarily related to associated vascular, hepatic and bowel injuries.⁴ Isolated pancreatic trauma with disruption of the major pancreatic duct is rare.³ When the pancreas is injured in isolation, its retroperitoneal position makes diagnosis difficult, with a subsequent risk of delayed recognition due to the lack of clinical signs. The incidence of isolated major duct disruption is unknown, and it can present acutely or several months later. With such a disruption, serum amylase levels will be significantly raised, which mandates further investigation; a spiral CT scan is the means of choice, with sufficient accuracy in delineating complete parenchymal fracture.

The definitive surgical procedure described in this case (distal pancreatic resection with splenectomy) is a well-described

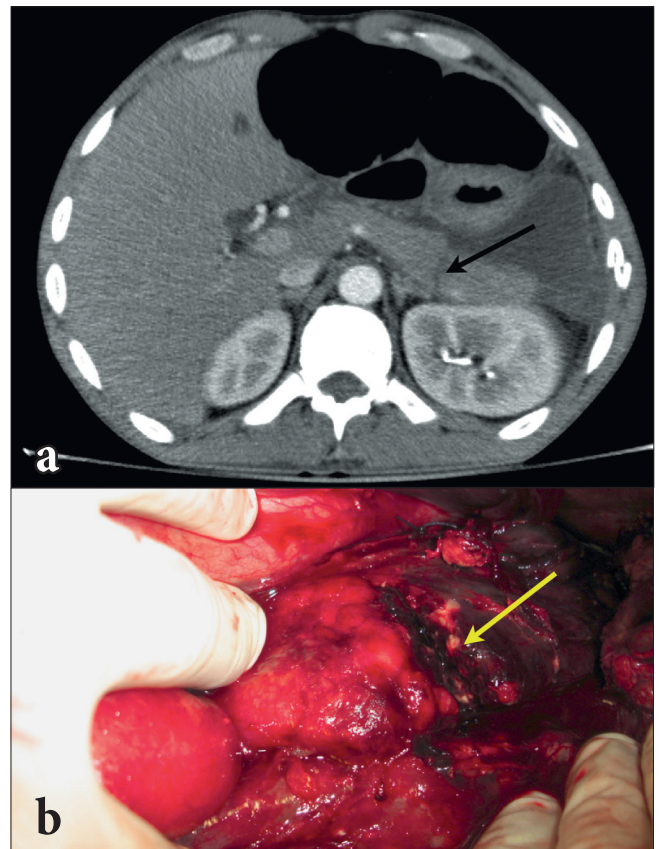


Fig. 1. a: Contrast CT scan showing transection of distal pancreas. b: Intra-operative photograph of transected distal body of pancreas (arrow).

operation for the management of the transected pancreas or for severe injury with duct disruption to the tail of the pancreas.^{5,6}

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