Images in Medicine

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Delayed Presentation of Traumatic Transection of the Pancreas

Surgery Section

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ABSTRACT

We report an interesting case of delayed presentation of isolated injury of transection of pancreas at the junction of body and neck following the blunt abdominal trauma.

Key Words: Delayed presentation, Isolated injury, Transection of the pancreas and Blunt abdominal trauma

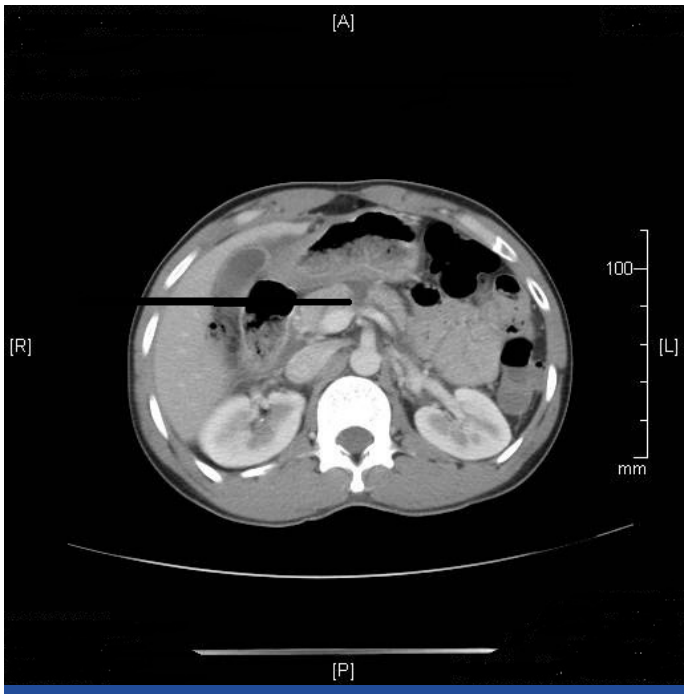
INTRODUCTION

Pancreatic injuries occur in up to 10% of all major trauma events, with nearly 25% of these injuries resulting from blunt trauma. Due to the retroperitoneal location of the pancreas, isolated pancreatic injury occurs in less than 5% of cases of major blunt abdominal trauma [1,2]. Management strategies described are distal pancreatectomy with splenectomy [2,3], spleen preserving distal pancreatectomy, primary repair of the pancreas and main pancreatic duct [4], conservative approach [5], and pancreas parenchyma preserving surgical approach [6,7,8].

CASE SUMMARY

A 30-years-old, young man got admitted to the Fr Muller Medical College Hospital following a road traffic accident. He sustained an injury over the right foot and blunt abdominal trauma. On examination, the patient was found to be fully conscious and oriented, GCS-15/15. He was haemodynamically stable. A swelling and tenderness were present over his right ankle joint and on per abdominal examination, mild epigastric tenderness was found to be present. His systemic examination was normal. His routine blood investigations were normal and the X-ray of his right foot showed a talar fracture for which a POP slab was put by the orthopaedic surgeons. USG of his abdomen did not show any intra-abdominal injury. The patient was treated conservatively with nil by mouth and analgesics. Oral feeding was started one day later. After the start of the oral feeding, the patient started complaining of increased abdominal pain and vomiting. A repeat USG of the abdomen showed a pancreatic injury with a minimal haemoperitoneum. CT scan of the abdomen showed complete transection of the pancreas at the junction of the neck and the body of the pancreas, with a minimal peripancreatic haemoperitoneum. The serum levels of amylase were found to be marginally elevated.

The patient underwent exploratory laparotomy and he was found to have complete transection of the pancreas at the junction of the neck and the body of the pancreas, a minimal haemoperitoneum and patchy necrotic areas in the lesser omentum. We did oversewing of the proximal end of the transected head of the pancreas with a non-absorbable suture and Roux-en-Y end to end pancreaticojejunostomy of the distal remnant. A feeding jejunostomy was done for postoperative nutritional support.



[Table/Fig-1]: Arrow showing complete transaction of pancreas at neck

Postoperative octreotide was administered subcutaneously at a dose of 100 micrograms 8 hourly for 10 days in an attempt to decrease the output of the pancreatic juice. In the postoperative period, the patient developed a low output pancreatic fistula which healed gradually after 4 weeks. The patient tolerated the oral feeds, his sutures were removed after the 14th postoperative day and he was discharged from the hospital. The follow up fasting blood sugar level of the patient was normal.

DISCUSSION

A complete pancreatic transection is rare and it usually occurs in the superior mesenteric vessels at the neck of the gland. An isolated pancreatic injury may be missed or the diagnosis may be delayed because the initial symptoms and signs of the pancreatic injury could be subtle. This may contribute to the morbidity and the mortality which are associated with this injury. Studies have demonstrated that the elevation of amylase in both serum and

[Table/Fig-2]: Operative photograph showing complete transaction of pancreas at neck

the peritoneal lavage fluid is neither sensitive nor specific for the diagnosis of the pancreatic injury [9].

Various surgical options are distal pancreatectomy with splenectomy, distal pancreatectomy with splenic preservation, primary repair of the pancreas and pancreatic duct and pancreas preserving and Roux-en-Y pancreaticojejunostomy or pancreaticogastrostomy to the distal segment. Exploration and drainage alone result in fistulae, abscesses, pancreatitis, or necrosis.

Distal pancreatectomy with splenectomy is associated with the loss of a significant amount of normal pancreatic parenchyma and it could lead to long-term pancreatic insufficiency and postsplenectomy infections. The rationale of the spleen preservation procedure is preventing postsplenectomy infectious complications, which may not be always technically feasible, as it is more time consuming and as it is associated with increased blood loss. The primary repair of the pancreas and the pancreatic duct is technically demanding and time consuming. It may not be feasible in all the patients and its role has yet to be defined.

A pancreas preserving approach is feasible, safe and appropriate for isolated pancreatic neck transection. Different techniques for the reconstruction of the pancreas have been adopted: jejunal anastomosis to both the proximal and the distal stump or only to the distal stump, or the distal pancreaticogastric anastomosis. It preserves as much normal pancreas as possible. The potential risks of endocrine and exocrine insufficiency following the removal of more than 50% of the pancreas are thus prevented.

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