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Traumatic horizontal transection of the pancreas

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Isolated pancreatic injury is relatively rare due to anatomical localisation in the retroperitoneal space. The pancreas extends across the spine near the upper lumbar vertebrae. This close location of the lumbar spine can lead to a rare type of horizontal laceration [1]. The early diagnosis is challenging and the clinical examination result is initially inferior [2]. Ideal management options vary according to the degree of injury, the location, and the hemodynamic state of the patient [3].

A 27-year-old patient was presented to the emergency department with a recent history of falling from a 2 m high ladder, landing on a steel stick that penetrated the abdomen in the left hypochondrium. Initially, the patient was stable with normal vital signs and later developed hemorrhagic shock. On examination, the abdomen was slightly distended, painful to palpation, and showed peritoneal irritation. The penetrating wound was 8 cm long and transverse, with oozing blood. Laboratory results were significant for lymphocytosis and elevated transaminases. Computed tomography of the abdomen and pelvis revealed a complete transection of the pancreatic head, including uncus and pool of intraabdominal blood. (Figs. 1 and 2) Due to uncontrolled bleeding and hemorrhagic shock, our patient required initial surgical damage control. Urgent laparotomy initially revealed bleeding in the subhepatic space. The parenchyma of the pancreas between the head and the body was completely horizontally interrupted. Several extensive fluid collections were located in front of the tail and body of the pancreas, between the stomach and the spleen. As a result, the tail of the pancreas was resected and the stump was sutured. The critical issue for our patient was that the main pancreatic duct was damaged and the postoperative pancreatic fistula of the stump was a concern. The drain tubes were appropriately positioned, and octreotide was administered to reduce pancreatic juice production. Postoperative hospitalisation was complicated by a postoperative pancreatic fistula, which led to an extended hospital stay. The drain was progressively withdrawn. After successful medical management, the patient was discharged one month after surgery and has remained free of further postoperative complications.

Horizontal transection of the pancreas is rare and difficult to repair under unstable emergency conditions; In younger patients, organ-sparing operation should be necessary. The timing and choice of the procedure might be difficult. We want to emphasise the importance of early intervention and a damage control management protocol to avoid delayed morbidity and mortality.

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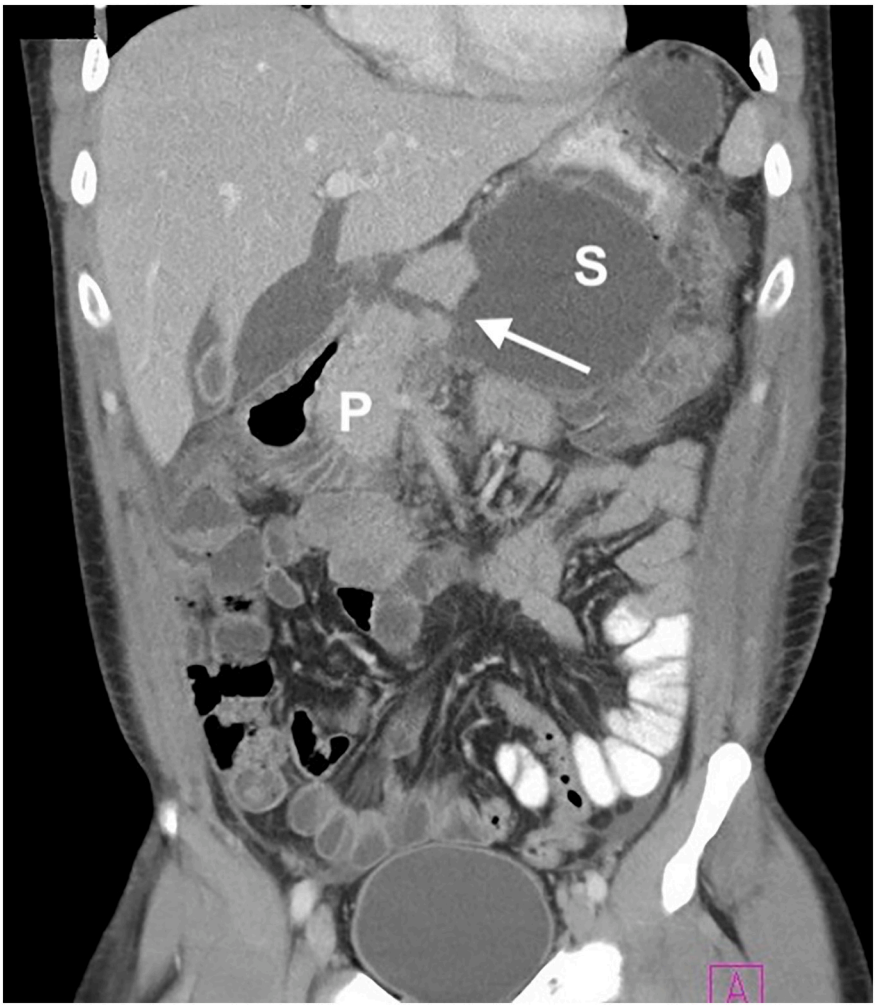

Fig. 1. Abdominal CT scan (coronal) showing complete transection of the pancreas (arrow) and peripancreatic fluid collections (P-pancreas, S-stomach).

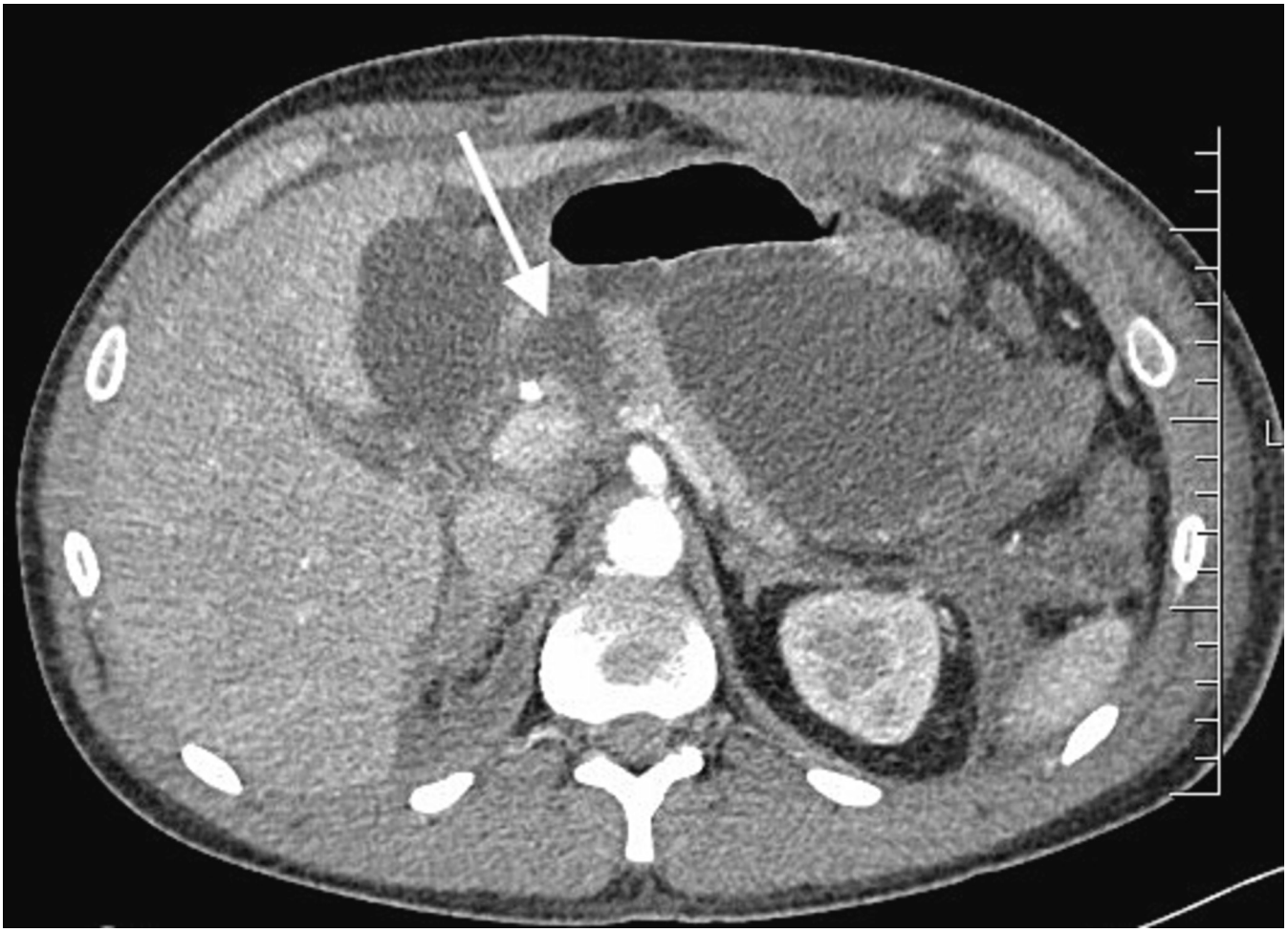

Fig. 2. Abdominal CT scan (axial) showing pancreatic transection (arrow) along the thoracolumbar spine with fluid collections.

Question

What is the most effective surgical procedure if a transection of the main pancreatic duct is considered?

A) direct suturing,
B) **jejunal anastomosis,**
C) preoperative endoscopic retrograde pancreatography (ERCP) to confirm fistula or transection,
D) stapler suturing.

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Ethical approval statement

Written informed consent was obtained from the patient for his anonymised information to be published in this article.

CRediT authorship contribution statement

Arpád Panyko: Writing – original draft. **Martin Dubovský:** Writing – review & editing. **Marianna Hájska:** Writing – review & editing.

Declaration of competing interest

The authors declare that there is no conflict of interest.

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