

Traumatic pancreatic transection from blunt abdominal trauma

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A 16-year-old boy presented with progressively worsening epigastric pain and vomiting a day after he was kicked in his abdomen during a soccer game. His vital signs were normal. A physical examination revealed epigastric tenderness with no associated bruising or other injuries. Serum amylase level was

elevated at 486 units/L (normal 40–140 units/L). Computed tomography (CT) of the abdomen and pelvis (Figure 1) showed complete transection in the region of the pancreatic body and tail with peripancreatic fluid. Other investigations did not provide any additional information toward the diagnosis. The

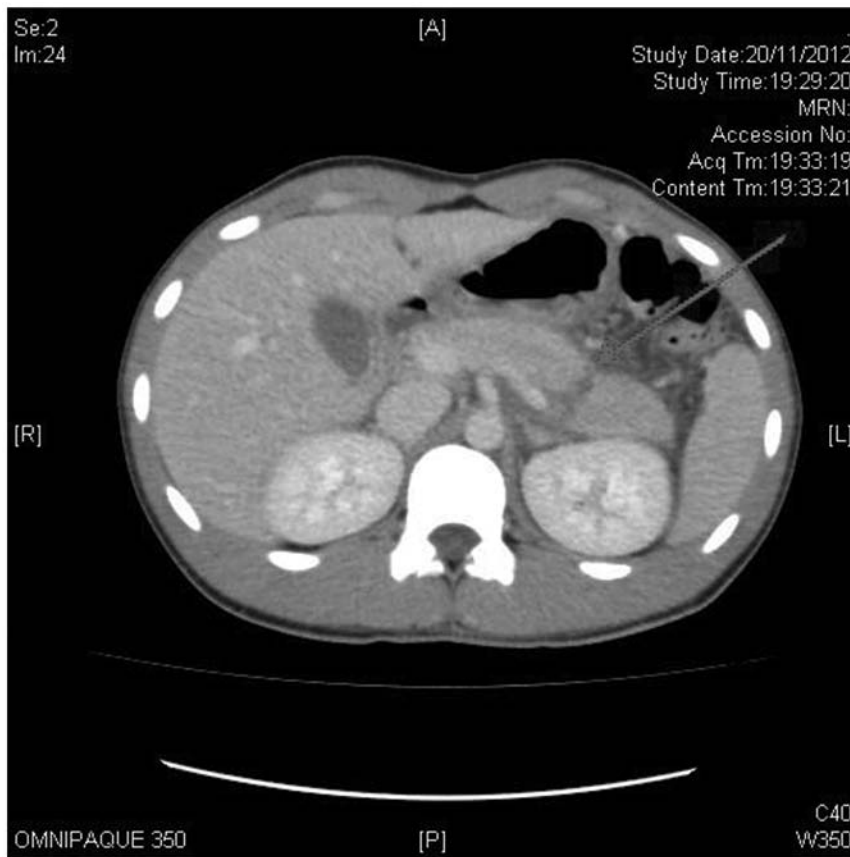


Figure 1. Transection of the pancreas in the region of the body and tail with peripancreatic fluid.

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patient underwent distal pancreatectomy and was discharged uneventfully on postoperative day 8.

Isolated pancreatic injury is rare, occurring in less than 5% of blunt abdominal trauma.¹ Due to its retroperitoneal location, physical signs and symptoms may be subtle or delayed. Late recognition leads to a high complication rate (30–60%) and mortality (9–34%).² Initial serum amylase levels are varied and may be normal, so they cannot be relied on to guide the clinician toward the diagnosis.³ Although CT is the recommended imaging modality in diagnosing pancreatic injuries, reported sensitivity and specificity are only around 80%.^{4,5} The findings may be normal in the first 12 hours after injury, and CT should be repeated if symptoms persist or if the amylase level remains elevated. Management depends on the extent of injury and associated ductal or other organ injuries. Early identification is important to improve outcome. High-energy trauma to the epigastrium should make the clinician consider this possibility.

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Keywords: abdominal pain, blunt abdominal trauma, pancreatic transection

REFERENCES

1. Linsenmaier U, Wirth S, Reiser M, et al. Diagnosis and classification of pancreatic and duodenal injuries in emergency radiology. *Radiographics* 2008;28:1591-602, doi:[10.1148/rg.286085524](https://doi.org/10.1148/rg.286085524).
2. Kao LS, Bulger EM, Parks DL, et al. Predictors of morbidity after traumatic pancreatic injury. *J Trauma* 2003;55:426-905, doi:[10.1097/01.TA.0000090755.07769.4C](https://doi.org/10.1097/01.TA.0000090755.07769.4C).
3. Takishima T, Sugimoto K, Hirata M, et al. Serum amylase level on admission in the diagnosis of blunt injury to the pancreas: its significance and limitations. *Ann Surg* 1997;226:70-6, doi:[10.1097/00000658-199707000-00010](https://doi.org/10.1097/00000658-199707000-00010).
4. Klin B, Abu-Kishk I, Jeroukhimov I, et al. Blunt pancreatic trauma in children. *Surg Today* 2011;41:946-54, doi:[10.1007/s00595-010-4369-y](https://doi.org/10.1007/s00595-010-4369-y).
5. Cirillo RL, Koniaris LG. Detecting blunt pancreatic injuries. *J Gastrointest Surg* 2002;6:587-98, doi:[10.1016/S1091-255X\(01\)00028-2](https://doi.org/10.1016/S1091-255X(01)00028-2).