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EMERGENCY PANCREATICODUODENECTOMY AFTER ABDOMINAL BLUNT TRAUMA BY A BIKE HANDLEBAR IN A 10-YEAR-OLD BOY

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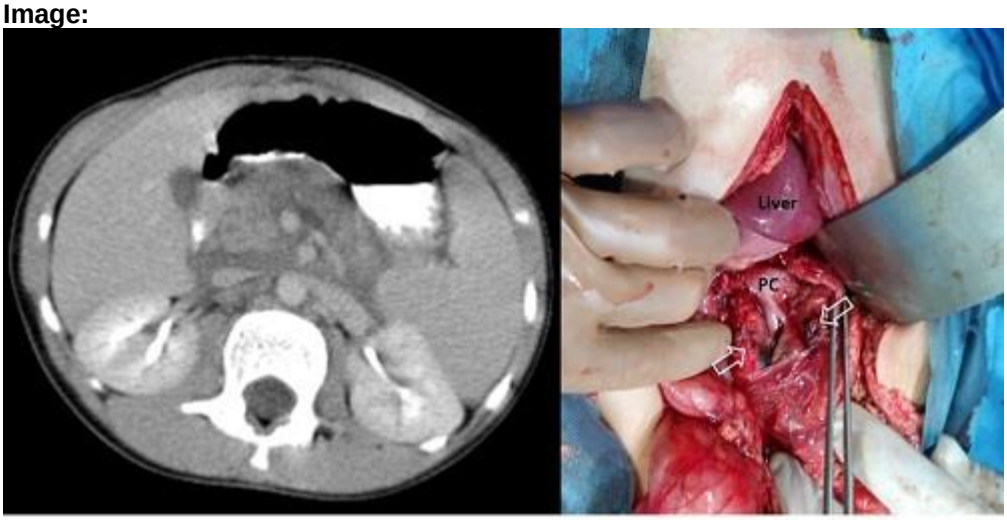
Introduction: Pancreatic injury is the fourth most common solid organ injury, following the spleen, liver, and kidneys. Early diagnosis of pancreatic trauma is a key for optimal management, but remains a challenge even with more advanced imaging modalities. For both penetrating and blunt pancreatic injuries, the presence of main pancreatic ductal injury is the major determinant of morbidity and the major factor guiding management decisions. The complete pancreaticoduodenectomy is often the choice of treatment on the surgeon confronting for an injured pancreatic head particularly in the presence of concurrent duodenal injury to rescue a patient considering his or her acute hemodynamics.
Materials & Methods: A-10-year old boy refers to emergency department with the complaint of ongoing abdominal pain after hitting of a bike handlebar to his abdomen. He tended to be immobile and sit instead of lying down. He was hemodynamically stable with a notable tenderness mostly in the periumbilical region and an abdominal wall progressively became guarded. Focused abdominal sonography for trauma (FAST) was positive for free intraperitoneal fluid that indicated CT scan in which the intraperitoneal solid organs were intact. For the peritonitis, He underwent laparotomy. The peritoneal cavity contained about half liter of bloody fluid. There was a massive disruption of the pancreatic head and its main duct within surrounding non expanding hematoma with obvious main pancreatic duct disruption. The decision to Whipple procedure was made. For a tiny pancreatic duct he had, the intact part of pancreatic tissue including tail and nearly the 10% distal of body was attached with a one-layered invagination end-to-side pancreatojejunostomy technique to the jejunum. Ensuring efficiency of anastomosis and the absence of the leaking, abdominal wall after inserting drainage tubes was repaired and the patient was sent to intensive care unit.
Results: There was neither complication before nor after enteric feeding and in the several careful follow-ups.
Image:



Abdominal CT scan showing hazy appearance of the pancreas along with surrounding edema in the retroperitoneal space and on the exploratory laparotomy, completely disruption in the junction of pancreatic head and body (the arrows) so that the portal components (PC) are apparent behind.

Conclusion: The current report of a trauma-related pancreaticoduodenectomy underlines the importance of early and proper intervention in a case of a concurrent pancreatic and duodenal crushed injury. In addition, the trauma surgeon deals with narrow ducts of a child not having opportunity to be dilated compared with Whipple procedures for pancreatic tumors of an adult.
References:

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