Surgical Challenges in Management of Transected Pancreatic Duct in Blunt Trauma

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Isolated blunt pancreatic injury with ductal involvement is rare following a motor vehicle collision, but correlates with significant morbidity and mortality. We reported a 15-year-old male who presented to emergency department after sustained motor vehicle collision. Post trauma, he appeared drowsy but hemodynamically stable. Abdominal examination was unremarkable but FAST scan was positive and he was subjected for CECT abdomen and showed pancreatic laceration at the body with suspicious of pancreatic duct injury. He was planned for emergency exploratory laparotomy and intra-operatively noted pancreatic head laceration with transected pancreatic duct. The case proceeded with ligation of pancreatic duct cephalic stump, and distal pancreaticogastrostomy. Post operatively, the patient recovered well and he was discharged home on day 6 post operatively. Upon follow up visit, he was asymptomatic with repeated ultrasonography of abdomen showed no evidence of intra-abdominal collection.

Discussion: Pancreatic injuries with ductal disruption are of special significance. Apart from bleeding, the leak of enzyme rich of pancreatic juice incites vigorous inflammatory cascade that lead to catastrophic changes in patient metabolism and its sequelae including pancreatic necrosis, peripancreatic abscess, pseudocyst, enteric fistulae and organ failures. In a hemodynamically stable patient, CECT abdomen is the investigation of choice to detect pancreatic duct involvement. Pancreatic injury with ductal involvement require surgical management to prevent the complication of pancreatic enzyme leak. Non operative measure is found to be useful in selected patient. The criteria for non-operative group are stable hemodynamically, a controlled leak wall off like pseudocyst, absent associated injury or pancreatic necrosis. Non-operative strategy requires multidisciplinary involvement with excellent nutritional support, expert endoscopist and interventional radiologist.

KEYWORDS: Blunt abdominal trauma, transected pancreatic duct, conservative management