CASE REPORT

Treatment of pancreatic fistula

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Abstract:
Pancreatic fistula is usually a complication of acute or chronic pancreatitis but some time may follow surgery or trauma. Management of these fistulas is controversial though initial conservative approach is favoured by most. We report a case where trial of non operative treatment failed. Conservative surgical drainage of fistula into Roux En Y Loop resulted in successful outcome.
Failure of conservative treatment may require internal drainage. Roux En Y drainage of fistula provide safe and easy alternative to more radical surgery.

Keywords: Pancreatic fistula, Roux-en-y

Introduction:
Conservative management of pancreatic fistula is widely accepted treatment of choice. Prolonged conservative treatment results in loss of proteins and malnutrition. Failure of fistula to dry up after a reasonable trial of conservative treatment requires intervention. Endoscopic stenting of pancreatic duct, partial pancreatectomy or Roux En Y drainage of pancreatic duct are suggested options.

We report a case in which fistula was internally drained into small bowel by Roux En Y Loop.

Case report:
A 12 yr old male child was involved in a freak accident while playing hide & seek, he decided to hide himself in concrete mixing machine which got accidentally turned on. He received severe blunt abdominal injury but no injury to hollow viscus hence was treated conservatively in a peripheral hospital. On the 10th day an exploratory laparotomy was done in the peripheral hospital for presumed intestinal obstruction. Fluid was found in lesser sac with inflamed macerated pancreas. A drain was put in the lesser sac. Post operatively he was kept NPO for 2 weeks with TPN and Inj Sandostatin. Drain output gradually reduced and ultimately seized at which time it was removed. On resumption of feed abdomen again started to distend so the drain was reinserted. Patient was conservatively treated with TPN, Sandostatin and NPO, which was continued for further 4 weeks. Because of continued drainage of fistula he was referred to a tertiary care hospital for further management. Conservative management was further continued for 2 weeks with TPN through a central vein and Sandostatin. There was no effect on fistula output. CT scan at this stage revealed pancreatic duct injury. Facilities and expertise for pediatric ERCP & stenting was not available hence surgical treatment was planned. On exploratory laprotomy, a mature fistulous tract was found in lesser sac, which were opened on the tube laterally & Roux En Y anastomosis was done. Tract exit was cauterized with bipolar diathermy. The post operative recovery was uneventful with no further drainage and child was discharged home on 10th post operative day on oral feeding. The three month follow up did not reveal any further collection.

Discussion:
Pancreatic fistula is usually a complication of acute or chronic pancreatitis. It can occur post-

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operatively especially after pancreatic resection, pancreatic drainage for a pseudocyst and after abdominal trauma[1].

Traumatic pancreatic injury is very uncommon because of the retroperitoneal location of pancreatic organ, more over the diagnosis is often delayed or injury is discovered incidentally at exploratory laprotomy for blunt abdominal injury is done[2]. CT scan & MRCP are good diagnostic modalities[2]. ERCP is an accurate technique for assessing location and type of duct disruption and also for therapeutic stenting.[3,4,5,6]

Delayed diagnosis of main duct injury can lead to severe complications like recurrent pancreatitis, pseudocyst or abscess formation[5].

Traditionally pancreatic fistula is managed conservatively. The objectives of management is to keep patient NPO, reducing output with sandostatin and using parental nutrition. The rationale is to reduce pancreatic secretions by resting the gland and allowing time for fistula to dryout[7,8]. This may require lengthy hospitalization and is costly[9,10]. In a significant number of patients the conservative management may fail[11].

Over last 15 years with refinement of endoscopic instruments and availability of experience, trend is towards early therapeutic ERCP. This helps early drying of fistula by reducing pancreatic ductal pressure. This can be achieved by simple sphincterotomy or by placement of stent or nasopancreatic tube[1]. When facilities and expertise are available it results in closure of fistula in over 90% cases within day.

Failure of endoscopic management is usually due to associated stricture or too distal leak. In case of failure to achieve fistula closure endoscopically or unavailability of endoscopic expertise, surgical intervention may be required. Surgery often included distal pancreatectomy, pancreatico-enterostomy or whipples type procedure[1]. Pancreatic duct can be closed laproscopically by stapling device or suture[12]. All these procedures can be difficult in presence of pancreatitis and may be associated with significant morbidity.

Methods we are advocating provides relatively simple alternative to more complex surgical procedures where ERCP is unavailable or has failed. It involves internal drainage of mature fistula into Roux loop. It may help surgeon in the management of difficult problems of pancreatic fistula.

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