

Resection for Traumatic Pancreatitis *

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CONSERVATIVE TREATMENT for acute pancreatitis is usually recommended whether the disease has a traumatic or an inflammatory basis.¹⁻⁸ The feeling is prevalent that acute traumatic rupture of the pancreas is best treated without resection. Most reports suggest that in case of inadvertent exploration, only simple drainage and/or cholecystectomy or T-tube drainage be done. We wish to present four case histories of traumatic pancreatitis which exemplify a different approach to the problem.

D. G. This 10-year-old boy was admitted to Ancker Hospital on Jan. 1, 1951 complaining of minimal abdominal pain after being struck by a car while sliding. X-rays of the abdomen and spine were negative and the patient was discharged on Jan. 2 and then readmitted on Jan. 4, 1951 with the complaints of nausea and vomiting.

Physical examination revealed tenderness and some rigidity in the upper abdomen. Temperature was 37.8° C. (100° F.). Laboratory work revealed a hemoglobin of 13.4 grams, a white blood cell count of 15,700 and a negative urinalysis. X-ray studies of the abdomen were negative.

Approximately 72 hours after admission the patient was explored with a tentative diagnosis of ruptured viscus. A large retroperitoneal cyst was found in the region of the pancreas. It was thought to represent an accumulation of pancreatic secretion due to partial rupture of the pancreas. Fat necrosis was present in this area. A cholecystostomy was done and the wound closed. The patient developed nausea and vomiting.

About seven days postoperatively an up-

per gastro-intestinal x-ray study showed almost complete duodenal obstruction. On Jan. 17 a gastroenterostomy was performed. The cystic mass at this time seemed larger than at the first operation. The patient got along well following gastroenterostomy and left the hospital 32 days from the time of the second admission.

Mrs. R. M. H.—A-204771. This 32-year-old white woman was admitted to Ancker Hospital on Feb. 19, 1955, for treatment of injuries inflicted by her husband. On admission the patient complained of anterior chest pain and severe abdominal tenderness.

On physical examination the patient had multiple bruises over the face, chest and abdomen. There was diffuse abdominal tenderness with rebound tenderness over the upper abdomen. The laboratory work showed a hemoglobin of 12 Gm. and a normal urinalysis. The leukocyte count rose from 9,000 to 11,900 about 28 hours after admission. Her temperature rose to 37.8° C. (100° F.) 48 hours after admission.

Fifty-six hours after admission an exploratory laparotomy was performed with a tentative diagnosis of ruptured pancreas. A bilateral subcostal incision was used. A complete transection of the pancreas was found at the neck. The body and the tail of pancreas and the spleen were removed. The raw surface of the pancreas was peritonealized. The abdomen was drained by means of three Penrose drains. Two were brought out through the left flank and one through the right flank. The wound was closed with running 2-0 chromic cat gut. The patient made an uneventful recovery and left the

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hospital 20 days after admission. Fasting blood sugars postoperatively were 89 and 75 mg%.

S. H. This 3-year-old boy was admitted to Ancker Hospital on Ap. 4, 1955, after an automobile accident on the previous day. The patient complained of some pain in the head and stomach on admission.

Physical examination on admission was negative except for a small hematoma over the right occiput and some tenderness over the entire abdomen. Laboratory work on admission revealed a hemoglobin of 12 Gm. and a normal urinalysis. The leukocyte count rose from 17,000 to 23,000 in the 24 hours following admission. About 36 hours after admission the temperature rose to 37.8° C. (100.1° F.). The serum amylase was 400 Somagyi units. X-rays including chest, skull, and supine and upright x-ray films of the abdomen showed no abnormality.

The patient was explored with a tentative diagnosis of a ruptured spleen. The pancreas was found completely transected in the distal third, so the distal segment was removed with the spleen. The distal end of the remaining pancreas was then peritonealized. Three drains were used to drain the abdomen. The wound was closed with interrupted silk and the patient made an uneventful recovery. He left the hospital 15 days after admission.

R. V. K. This 9-year-old boy was admitted to Ancker Hospital on June 13, 1956, after falling while riding a bicycle. The end of the handle bar bruised a 2 cm. area just to the right of the midline in the right upper quadrant.

On admission, the patient had upper abdominal tenderness. The rest of the physical examination was negative. Laboratory work on admission revealed a hemoglobin of 12 Gm. and a leukocyte count of 11,000. The serum amylase 12 hours after admission was 378 Somagyi units. X-ray studies showed no evidence of free air in the peritoneal cavity.

An exploratory laparotomy was done about 24 hours after admission with a tenta-

tive diagnosis of ruptured pancreas. At operation a complete transection of the pancreas was found at the junction of the body and the head of the pancreas with marked fat necrosis surrounding this area. The body and tail of the pancreas were removed with the spleen. The cut end of the remaining segment was closed with a flap of peritoneum after a 3-0 tie was placed around the duct. The wound was closed with interrupted silk without drainage.

The patient made an uneventful recovery. Fasting blood sugars varied between 82 and 133 mg.% following operation. The patient was discharged 12 days after admission.

DISCUSSION

Traumatic rupture of the pancreas may not be as rare as the medical literature would indicate since many cases are probably undiagnosed until cyst formation occurs. The first case represents an example of this frequent complication of traumatic rupture of the pancreas.

The treatment employed in the other three cases for traumatic rupture of the pancreas we believe should reduce the high incidence of complications. Most reports of blunt injury to the pancreas indicate a high incidence of pseudocyst formation together with pancreatic fistulae. Anything which could be done surgically to lessen the high incidence of complications would seem to be indicated. Although some authors have suggested resuturing the pancreatic duct¹ this seems to be next to impossible unless the pancreatic duct is dilated. The lack of symptoms with resection of 80 per cent of the pancreas in two of the cases reported is consistent with the findings of surgeons who have resected this amount of pancreas for islet cell adenomas. These cases show that fear of producing pancreatic insufficiency after resection of the distal pancreas is not justified and that resection of the pancreas distal to the injury is probably the best treatment for most patients with traumatic rupture of the pancreas.

CONCLUSION

1. Four cases of rupture of the pancreas due to blunt trauma of the abdomen are reported. Resection of the pancreas distal to the rupture was done in three.

2. The quick and complete recovery in the three cases following resection of 20 to 80 per cent of the pancreas suggests that resection is a better treatment than simple drainage.

3. There were no symptoms of pancreatic insufficiency in the three patients with resection.

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