Research Paper

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A Study of 50 Cases of Management of Acute Pancreatitis

Medical Science

KEYWORDS : acute pancreatitis

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ABSTRACT

OBJECTIVE:

Acute pancreatitis is very serious disease with significant morbidity and mortality . Therefore, this study was undertaken to treat the patients of acute pancreatitis with help of various modalities of treatment available to our hospitals, to prevent the recurrence .

METHOD:

The study was conducted in 50 patients of acute pancretitis admited in surgical wards of general hospital. After admission all patients were studied according to proforma. Proforma was designed to record the history, chief complain, past history, family history, personal history, addiction history ,obstetric and menstrual history (in case of female patient), physical examination local examination, neurological examination, investigations and management .

RESULT:

Out of 50 patients with ACUTE PANCRETITIS, 35 (70 %) were males while remaining 15 (30%) were females. Majority of patients (80%) belonged to the middle age group. 70 % patients were of lower socio-economic class. Average duration of pain was 1 day. Alcoholism and smoking was far more common in males than in females, where as gall stone disease more commen in female. Acute abdominal pain radiating to back was the commonest presenting symptom. DIAGNOSIS made with the help of clinical features ,past history , s.amylase s.lipase ,ultrasonography in emergency department , 85% of patients have interstitial pancreatitis; 15%have necrotizing pancreatitis Among patients with necrotizing pancreatitis, 33% have infected necrosis Mortality in acute pancreatitis overall, is approximately 5%: 3% in interstitial pancreatitis, 17% in necrotizing pancreatitis.In necrotizing pancreatitis, mortality 3-fold infected vs. sterile necrosis

CONCLUSION :

Acute pancreatitis is very serious condition with great morbidity and mortallty,that is why its proper management is very important

1.) Volume replacement is the foundation of therapy
2) Establish etiology ,Importance is to prevent recurrence
3) Biliary Pancreatitis ,Utilize laboratory markers for diagnosis of retained CBD .ERCP is only for treating patients with cholangitis
4) Do not use prophylactic antibiotics.only for severe interstitial pancretitis and necrotisizing pancretitis.
5) CT guided aspiration is the diagnostic test for pancreatic infection & allows directed antibiotic therapy
6) Surgical intervention in patients with infected pancreatic necrosis but rarely in sterile necrosis
7) Early enteral feeding is safe, prevents leaky gut and is associated with less complications than TPN
8) Alcohol cessation stricly advised in all patient with alcohol pancreatitis.
9) Elective choleycystectomy offered to all having gall stone pancretitis.

INTRODUCTION:

Acute pancreatitis is an inflammatory disease of the pancreas that is associated with little or no fibrosis of the gland. It can be initiated by several factors, including gallstones, alcohol, trauma, and infections, and, in some cases, it is hereditary. Very often, patients with acute pancreatitis develop additional complications such as sepsis, shock, and respiratory and renal failure, resulting in considerable morbidity and mortality.[25] Despite the considerable amount of research under way relating to this disease, its pathophysiologic mechanisms remain incompletely understood.That is why management criteria are not clear for acute pancretitis.

AETIOLOGY

- Alcoholism-Direct injury
  (25%Cases) Malnutrition
  Hyperlipidemia
  Hypersecretion
- Gallstone -Bile reflux
  (50% Cases) Reflux of activated enzymes
  Pancreatic ductal hypertension
- Ischaemia
- Drug induced-L-asparaginase,azathioprine,ethanol,steroids
- Hyperparathyroidism/hypercalcaemia
- Trauma
- ERCP/Other procedures
- Autoimmune-Hereditary Pancreatitis
- Infectious-Mumps
- Idiopathic

ALCOHOL : Although some patients show the symptoms of acute pancreatitis after little use or even a single exposure to alcohol, the disease commonly occurs in patients who have consumed alcohol for at least 2 years, and often much longer, up to 10 yea

BILE DUCT STONE: Although acute pancreatitis is documented in association with acalculous biliary tract disease, bile duct stones (choledocholithiasis) represent the most common form of associated biliary abnormality. The mechanism by which a gallstone may cause pancreatitis is not entirely clear, although gallstones have been implicated ever since ,propose the "common-channel hypothesis," in which a blockage below the junction of the biliary and pancreatic ducts would cause bile to flow into the pancreas, which could then be damaged by the detergent action of bile salts.

CLINICAL FEATURES

- Abdominal pain
- Nausea and vomiting
- Anorexia
- Fever
- Hypovolemia
- Ileus
- Abdominal tendernes
- Lt Pleural effusion
- Altered mental status
- Jaundice
- ARDS

COMPLICATIONS

- **Pulmonary**
  - Pleural effusions
  - Atelectasis
  - Mediastinal abscess
  - ARDS
- **Cardiovascular**
  - Hypotension
  - Sudden death
  - Pericardial effusion
- **Hematologic**
  - DIC
- **Gastrointestinal**
  - PUD
  - Erosive gastritis
  - Blood vessel erosion
  - Portal vein thrombosis
- Renal
  - Oliguria
  - Azotemia
  - Renal artery/vein throbosis
  - ATN
- Chronic Pancreatitis
  - Abdominal Pain
  - Steatorrhea
  - Exocrine insufficiency (pancreas has a 90% re serve for the secretion of digestive enzymes)
  - DM, i.e.Endocrine Insufficiency
  - Pseudocyst

INVESTIGATION

- Complete blood count, Renal function tests, Liver Function test,S.amylase-3-4 times increase
- (Normal Range <115IU),S.lipase-lipase levels may have a slightly greater sensitivity, particularly when measured late (> 24 hours) after initial presentation.,Serum calcium ,Arterial blood gas .
- CXR- Basal atelectasis, Elevation of diaphragm, Pleural effusion,
- AXR- Multiple air fluid interphase, Pancreatic calcifications, Calcified Gall stones, “Sentinel loop” sign, “Colon cut off” sign “Renal halo” sign
- US pancreas- interstitial edema, Extra pancreatic fluid collections, Gall stones,Ascites,Dilated CBD
- Limited value due to presence of intestinal gas
- CT abdomen Patients with persisting organ failure
- signs of sepsis
- deterioration in clinical status after admission

MANAGEMENT

The current principles of treatment are physiologic monitoring, metabolic support, and maintenance of fluid balance, which can become dangerously disturbed even in mild acute pancreatitis because of fluid sequestration, vomiting, and sudoresis. Because hypovolemia can result in pancreatic and other visceral ischemia, fluid balance should be assessed at least every 8 hours initially.

The severe pain of acute pancreatitis prevents the patient from resting, and results in ongoing cholinergic discharge, which stimulates gastric and pancreatic secretion. Therefore, pain management is of great importance. Administration of buprenorphine, pentazocine, procaine hydrochloride, and meperidine are all of value in controlling abdominal pain. Morphine is to be avoided, due to its potential to cause sphincter of Oddi spasm. Antibiotic therapy has not proved to be of value in the absence of signs or documented sources of infection.

Cautious resumption of oral feeding consisting of small and slowly increasing meals is permissible after the abdominal pain and tenderness have subsided, serum amylase has returned to normal, and the patient experiences hunger. This usually occurs within a week of the onset of an attack of mild acute pancreatitis. A low-fat, low-protein diet is advocated as the initial form of nutrition following an attack of acute pancreatitis Higher antibiotic prefrebly meropenem group used only in severe pancreatitis and evidence of necrotising pancretitis**.**

Treatment of sterile necrotic pancreatitis falls into three degrees of aggressiveness. At one end of the scale is the patient with no systemic complications and no concerns about secondary infections, who can be managed with the supportive care (see Mild Pancreatitis) and be cautiously brought back to refeeding. The area of sterile necrosis may evolve into a chronic pseudocyst or may resolve

Indication of surgery in acute pancretitis

- Persistant sepsis
- No response to intensive care treatment(> 3 days),
- Persisting or increasing local or systemic complications

Surgery in necrotising pancreatitis

- Debridement with closure over drains
- Debridement with open packing
- Debridement with closure over irrigation drains and postoperative lavage.(Beger surgerY

ERCP and CHOLYCYSTECTOMY IN BILIARY PANCREATITIS

- Early intervention (< 72 hrs)is favoured in severe biliary pancreatitis and having obstructive jaundice.
- In patients with acute biliary pancreatitis but without obstructive jaundice, early ERCP and papillotomy were not beneficial
- In severe cases,Endoscopic cholangiopancreatography +Endoscopic sphincterotomy(<48h) followed by choleycystectomy once the inflammatory process is resolved

CONCLUSION

ACUTE PANCRETITIS need to be manage with great care and various modality.S lipase is more useful than amylase in diagnosing acute pancreatitis.Prognosticate the patient,Single and multiple prognostic factors can be used.Identify acute mild and severe pancreatitis,Timely resuscitation and invasive monitoring are standard.No role for Nasogastric tube ,octertide or pancretic enzymes in early recovery of disease.,Early enteral feeding,Prophylactic antibiotics for selected cases,Early ERCP in severe biliary pancreatitis,Surgery in selected cases of necrotising pancreatitis,Delayed surgery is ideal unless indicated for early surgery.For patients needing debridement, open surgical techniques remain the “gold standard” of management ,Debridement with open packing and lavage in early cases,Debridement with closed drainage in elective cases.Alcohol cessation stricly advised in all patient with alcohol pancreatitis.Elective choleycystectomy offered to all having gall stone pancretitis.

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