



International Journal of Multidisciplinary Research and Development



IJMARD 2015; 2(3): 346-347
www.allsubjectjournal.com
Impact factor: 3.672
Received: 28-02-2015
Accepted: 15-03-2015
E-ISSN: 2349-4182
P-ISSN: 2349-5979

Vijayalakshmi. G.N.
Associate Professor, Dept. Of
General Surgery Bangalore
Medical College and Research
Institute Bangalore.

Clinical study and management of acute pancreatitis

Vijayalakshmi. G.N

Abstract

Background: Acute pancreatitis is a catastrophic condition with many complications and poses a great challenge to the treating surgeon. 10-20% of the patients who develop complications will not recover with simple supportive therapy. Hence our study designed to highlight the etiological factors, clinical features and management of complications of acute pancreatitis through proper clinical, biochemical and radiological examination.

Methods: 96 patients who were admitted to Bowring and Lady Curzon Hospital with the clinical and radiological evidence of acute pancreatitis with an elevation in the serum amylase levels were the subjects of the study.

Results: Incidence of acute pancreatitis is higher in males compared to females. Alcohol intake accounts for 81% of the total cases and gall stones in 14% of the cases as the etiological factors. Out of 96 patients 60 patients had an uncomplicated outcome, where as 36 patients had either systemic or local complications.

Conclusion: Acute pancreatitis is one of the common differential diagnosis of acute abdomen which if evaluated early and treated aggressively will result in lesser complications.

Keywords: Acute pancreatitis, Multi organ dysfunction syndrome (MODS), Necrosis.

1. Introduction

Acute pancreatitis has been recognized since antiquity but the importance of pancreas and the severity of its inflammatory disorders were realized only in middle of 19th century [1,2]. In 1889, Reginald Fitz gave the classic clinical and pathological description of acute pancreatitis and opined that an early operative intervention was usually ineffective and indeed could be hazardous [3]. Fortunately, in 80 – 90% of the patients, acute pancreatitis is a mild self-limiting disease due to edematous interstitial inflammation which resolves with conservative treatment. The remaining 10-20% of the patients will develop complications due to pancreatic necrosis and retroperitoneal inflammation which will not resolve with simple supportive therapy and fatal. These patients require intensive care, hemodynamic monitoring and frequent laboratory and radiological evaluation [4]. Predicting severity is an essential step while evaluating a patient with acute pancreatitis as it allows physicians to stratify disease severity and management strategies [5,6]. Some of the scoring systems which are being used are Ranson's criteria, Imrie's Glasgow system and the Acute Physiology And Chronic Health Evaluation score (APACHE-II) [7,8]. This study carried out to describe the profile as well as the outcome of acute pancreatitis at Bowring and Lady Curzon Hospital Bangalore.

Material and Methods

The study group has evaluated 96 patients with clinical, biochemical and radiological diagnosis of acute pancreatitis associated with complications (local/systemic), admitted to Bowring and Lady Curzon Hospital. Other parameters considered in the study were age, sex, etiology, acute or relapsing acute pancreatitis, complications as well as the patient follow up and recurrence rate. All the patients were evaluated thoroughly at the time of admission and at frequent intervals. Blood sample sent for total count, serum lipase, serum amylase and serum calcium. Ultrasound and CT scan are done when ever complications expected. Initial conservative management consists of nasogastric suction, intravenous administration of fluids, antibiotic and supportive care in all patients. Most of the systemic complications were managed by conservative and supportive care including ICU care.

Correspondence:
Vijayalakshmi. G.N.
Associate Professor, Dept. Of
General Surgery Bangalore
Medical College and Research
Institute Bangalore.

Results

Out of 96 patients 80 were male and 16 were female. Age group ranged from 21-70 years with a median age of 45.5 years. A history of alcoholic consumption as the etiology of pancreatitis was accounted in 78 patients (81.2%) while gall stones were the etiology in 14 patients (14.5%) and idiopathic in 4 patients (4.1%).

Out of 96 patients with acute pancreatitis, 60 (62.5%) had an uncomplicated outcome. Complications were seen in 36 patients (40%) as shown in table.

Complications	No of patients	Percentage
Pseudopancreatic cyst	11	30.5%
Necrosis	3	8.3%
Abscess	2	5.5%
Ascites ,Pleural effusion	4	11.1%
Renal failure	6	16.6%
Respiratory failure	6	16.6%
MODS	4	11.1%

Conservative supportive treatment by intravenous fluids, analgesics, electrolyte correction and antibiotics were used for all patients. 60 uncomplicated cases improved with this treatment. Complicated cases were treated accordingly. Out of 11 pseudocyst 8 cysts resolved in 6 weeks and 3 had undergone cystogastrostomy. Necrosectomy and surgical debridement were done in 3 cases. Pancreatic abscess was managed with laparotomy and external drainage in 2 cases. Pancreatic ascites was managed conservatively with ultrasound guided aspiration. Death occurred in 2 cases. Follow up cholecystectomy was done for gallstone induced pancreatitis. 20 patients had recurrent abdominal pain during the follow up period of 3 months.

Discussion

Acute pancreatitis is a disease with extremely different clinical expressions. The main causes of mortality in acute pancreatitis are MODS and infection of necrotic tissue. Prevention or diagnosis and early correction will be the first goal in the management of these patients^[9]. In this study acute pancreatitis was found more common in males than in females. This is in accordance with Ranson's study where as in Imries study female incidence is higher. In the present study alcohol was the etiological factor in 81.2% of the patients and gall stones were the etiological factor in 14.5% contrary to alcohol being the factor in 22% and gall stones in 43% of the patients in Larvin *et al.*'s study^[10]. Out of 96 patients, 60 patients(60%) had an uncomplicated outcome. Complications were seen in 36 cases (40%), these results go with the results of Rithin Suvarna *et al.*'s study^[11]. Ultra sound was helpful to identify local complications such as pseudocyst and abscess. But it had the advantage of being non invasive and could be repeated at frequent intervals when required. CT scan in this study was a very sensitive to used to diagnose pancreatic necrosis^[12,13]. In the present study pancreatic necrosis was documented in 3% of the patients the reason being that necrosis could only be diagnosed by contrast enhanced CT scan. Conservative supportive treatment was successful in most of the cases and minimally invasive procedure (usg guided aspiration of pancreatic ascites). Laparotomy was needed in less than 10% of the patients^[14,15,16].

In conclusion we believe that immediate diagnosis and proper treatment of acute pancreatitis can lead to a better outcome.

References

- Opie EL *et al.* The etiology of acute haemorrhagic pancreatitis. Bull John Hopkins Hosp 1902; 12:182.
- Thomson SR *et al.* Epidemiology and outcome of Br J Surg 1987; 74:398-401.
- Fitz Rh: Acute pancreatitis. Boston Med Surg J 1889; 120:181.
- Paredes – Cotore *et al.* Prognosis of acute pancreatitis: Ranson or APACHE II. *Rev Esp Enferm Dig* 1995 Feb; 87(2): 121-6.
- Banks PA, Freeman ML. Practice guidelines in acute pancreatitis. Am J Gastroenterol. 2006;101(10):2379-2400.
- Rau BM. Predicting severity of acute pancreatitis. *Curr Gastroenterol Rep.* 2007; 9(2):107-115.
- Wilson C *et al.*: Prediction of the outcome in acute pancreatitis: a comparative study of APACHE II. Clinical assessment and multiple factor scoring systems. Br. J Surg 1990 Nov;77 (11):1260-4.
- Schutte K, MAlfertheiner P. Markers for predicting severity and progression of acute pancreatitis. *Best Pract Res Clin Gastroenterol.* 2008;22(1):75-90.
- Dulce M Cruz-Santamaria *et al.*: Update on pathogenesis and clinical management of acute pancreatitis. *World J Gastrointest Pathophysiol.* 2012 Jun 15; 3(3): 60-70.
- Larvin *et al.* APACHE II score for assessment and monitoring of acute pancreatitis. *Lancet* 1989 Jul; (8656):201-5.
- RITHIN SUVARNA *et al.*: The clinical prognostic indicators of acute pancreatitis by APACHE II Scoring. *Journal of Clinical and diagnostic Research.* 2011 June, Vol-5(3): 459-463.
- London NJM *et al.* Abdominal CECT scanning and prediction of severity of acute pancreatitis: a prospective study. Br J Surg 1989; 76: 268-72.
- Balthazar EJ *et al.* Imaging and intervention in acute pancreatitis. *Radiology* 1994; 193: 297-306.
- Cooperman A.M. and Hoerr S.O. (Eds) 1998. *Surgery of pancreas.* C.V, Mosby St. Louis.
- Henry LG and Condon LE. Ablative Surgery for necrotizing Pancreatitis. *AM J Surg* 1976; 131:125-27
- Ihse I., Evander A., Holumberg J.T., *et al.* Influence of peritoneal lavage on objective prognostic signs in acute pancreatitis. *Ann Surg* 1986; 312:399-.03.