

ORIGINAL ARTICLE

OUTCOME OF ACUTE PANCREATITIS IN RELATION TO FREQUENCY, ETIOLOGY AND COMPLICATIONS

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Article received on: 03-04-2020**Article accepted on:** 09-12-2020**ABSTRACT****BACKGROUND:** Acute pancreatitis is one of the main causes of acute abdomen. It may cause multi-organ failure or even death. High morbidity and mortality are associated with it. The research study aimed at evaluating the clinical characteristics and results of acute pancreatitis in our community.**RESULTS:** A total 91 patients were included in this current study. The mean age of patients were 45.34 ± 15.657 years (range: 13–75 years) and majority were males 49 (53.8 %).patient were obese in about 9 % (9.9%).according to etiologist, 44 (48.4%) were have gall stones pancreatitis, 33 (36.3 % were diagnosed as idiopathic pancreatitis and only (9.9 %) found alcohol induce pancreatitis. Pancreatic collection was the common complication in 12(13.2%) patients while 84(92.3%) with interstitial pancreatitis and 7(7.7%) developed necrotic pancreatitis. For billiary pancreatitis 25(27.5%) patients under went ERCP during admission. Overall 84(92.3%) patients improved from pancreatitis (Table 1).**Conclusion:** Acute pancreatitis could have serious outcomes if not correctly and early managed. It is recommended to perform multicenter studies with a large sample of patients. multi-disciplinary team is required to

assess idiopathic pancreatitis.

Keywords: Acute pancreatitis, Gallstones, alcohol induce pancreatitis.**Article Citation:**

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INTRODUCTION

The reported incidence of acute pancreatitis ranges from 4.9 to 35 per 100,000 population in USA¹ the increased rate of acute pancreatitis incidence probably due to increasing of obesity and gallstones worldwide along with increasing ratio with age and male population² although there are many theories regarding the pathogenesis of acute pancreatitis but they all are still controversial, these causes still not yet been completely elucidated³.

Risk factor prevalence is influenced by Geographic and demographic differences between and within countries and it partly defining the variable incidence and etiology⁴. Alcohol induce damage to pancreas is the most leading cause of acute pancreatitis worldwide⁵.

For the diagnosis of acute pancreatitis revised Atlanta classification requires atleast 2 or more of the following criteria be met (a) severe abdominal pain that met the inclusion criteria of acute pancreatitis, (b) .serum lipase and or amylase level greater then twice upper limit of normal, (c) characteristic pattern of imaging of acute pancreatitis⁶. The most common imaging used for acute pancreatitis is CT imaging however magnetic resonance imaging is also appropriate⁷, but if the clinical criteria us met along with biochemical markers then imaging is not nessorcory to make diagnosis of acute pancreatitis⁷.

Acute pancreatitis is categorized into mild, moderate and severe according to their severity scale⁸ by the presence or absence of organ failure with higher mortality rate in case of severe pancreatitis which is account for about 25%⁹.

The aim of this current study is to assess the outcome that are associated with the risk factor in tertiary hospital of Hyderabad.

PATIENTS AND METHODS

All consecutive patients with acute pancreatitis aged above 10 year, of either gender, presenting in the emergency department of isra university hospital were included. Patient diagnosed as carcinoma of pancreas or other malignancy was excluded. Acute pancreatitis is defined as abdominal pain that is typically characteristic of epigastric pain that radiating to the back) with serum lipase levels and amylase level more than three times higher than normal. If the clinical criteria us met along with biochemical markers then imaging is not nessorcory to make diagnosis of acute pancreatitis. After taking informed consent, blood sample for complete blood count, liver function tests, serum albumin, serum amylase and lipase, serum calcium, LDH, lipid profile, random blood sugar, serum creatinine and urea was collected. Ultrasound abdomen was performed to see billiary system.

RESULTS

A total 91 patients were included in this current study. The mean age of patients were 45.34 ±15.657 years (range: 13–75 years) and majority were males 49 (53.8 %). Patient were obese in about 9 % (9.9%). According to etiologist, 44 (48.4%) were have gall stones pancreatitis, 33 (36.3 % were diagnosed as idiopathic pancreatitis and only (9.9 %) found alcohol induce pancreatitis .Pancreatic collection was the common complication in 12(13.2%) patients while 84(92.3%) with interstitial pancreatitis and 7(7.7%) developed necrotic pancreatitis. For billiary pancreatitis 25(27.5%) patients under went ERCP during admission. Overall 84(92.3%) patients improved from pancreatitis (Table 1).

Table 1. Association of risk factors and local complication w.r.t outcome.

		Outcome		P-value
		Improved	Expired	
Sex	Male	39 (46.4%)	3 (42.9%)	0.86
	Female	45 (53.6%)	4 (57.1%)	
DM	Yes	17 (20.2%)	2 (28.6%)	0.60
	No	67 (79.8%)	5 (71.4%)	
Alcohol	Yes	7 (8.3%)	1 (14.3%)	0.59
	No	77 (91.7%)	6 (85.7%)	
Smoker (Past/Present)	Never Smoke	7 (8.3%)	1 (14.3%)	0.59
	Past Smoker	77 (91.7%)	6 (85.7%)	
U/S GB Stone	Yes	27 (32.1%)	2 (28.6%)	0.85
	No	57 (67.9%)	5 (71.4%)	
CBD Dilatation	Yes	25 (29.8%)	1 (14.3%)	0.38
	No	59 (70.2%)	6 (85.7%)	
Stone In CBD	Yes	20 (23.8%)	1 (14.3%)	0.57
	No	64 (76.2%)	6 (85.7%)	
Peripancreatic Collection	Present	4 (4.8%)	2 (28.6%)	0.02*
	Absent	80 (95.2%)	5 (71.4%)	
Type of Pancreas	Interstitial	80 (95.2%)	5 (71.4%)	0.02*
	Necrotic	4 (4.8%)	2 (28.6%)	
Ascites	Yes	25 (29.8%)	4 (57.1%)	0.14
	No	59 (70.2%)	3 (42.9%)	

P-value < 0.05 will be considered as significant.

DISCUSSION

In this current study we assessed the in hospital mortality related to frequency, etiology and local complications of acute pancreatitis. In our study we found that majority of patients were male with normal BMI and have gall stone pancreatitis along with interstitial pancreatitis.

Gallstones pancreatitis is the most prevalent cause of acute pancreatitis in our current study, which is also similar in many others studies that is account for about 80% of the population¹⁰⁻¹¹⁻¹². acute pancreatitis have a clear gender

bias associations in may previous studies with male predominance in case of alcohol induce pancreatitis and gallstones pancreatitis in females predominance¹³, similar result were observed in our current study (9.9 %) found alcohol induce pancreatitis in males and 44 (48.4%) were have gall stones pancreatitis and majority are females.¹⁴

Peripancreatic Pancreatic collection was the common complication in 12(13.2%) patients while 84(92.3%) with interstitial pancreatitis and 7(7.7%) developed necrotic pancreatitis. Out of 91 patients 7(7.7%) expired . When risk

factors and local complication were associated with outcome, the p value < 0.02 was significant only for local complication while there was no significant association with risk factors.¹⁵

The higher rates of development of local complications among the alcohol AP group has previously been pointed out by various studies. Gullo L et al.¹⁶ found higher rates of peripancreatic fluid collection, Cho et al. highlighted greater pseudocyst formation in the alcohol group. Furthermore, Gullo L et al.¹⁶ compared the CT images of cases of AP between the two groups and found more aggressive CT findings in the alcohol group. Alcoholic AP is usually seen in heavy drinkers in whom substantial pancreatic damage has already set in by the time the patient develops AP.¹⁷

Whether etiology does play a role in the outcome of AP has been addressed in multiple studies. Some recent studies have found that alcohol has a more severe course with higher mortality compared to GS-related pancreatitis.^{18,19} Still further, few studies highlighted that the outcome of HTG-related AP has a more severe outcome.²⁰

This study is conducted in a tertiary care center where a large number of patients is referred, rather than present at the first time, hence leading to the possibility of a referral bias.

The study had a higher percentage of patients in the moderately severe and severe AP categories, and only 9.6% patients had mild AP. The detailed nature of the local complications, such as difference in the sites of necrosis and sites of collection, between the two groups needs to be studied.

CONCLUSION

In summary, the results of our study showed that the outcome of AP was mostly independent of the basic etiology of the disease, namely, alcohol or GS, and more so in the severe form of

the disease. The number of local complications tends to be slightly higher in the alcoholic AP group. Further nationwide studies are required to validate these findings.

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CONFLICT OF INCIDENCE

No conflict of interest declared by the authors.

AUTHORS' CONTRIBUTION

AB - Principal Investigator

MI - Co author

Jl - Manuscript Writing