Section: Miscellaneous

Original Research Article

A STUDY OF CLINICAL AND ETIOLOGICAL PROFILE OF PATIENTS WITH PANCREATITIS IN A TERTIARY CARE HOSPITAL IN EASTERN INDIA

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ABSTRACT

Background: The study was aimed to generate evidence regarding clinical and etiological profile of patients with pancreatitis in a tertiary care center of Purba Bardhaman district, West Bengal.

Materials and Methods: It was a facility based observational study with cross-sectional design. The study was done at in-patient department of General Medicine, Burdwan Medical College & Hospital, Purba Bardhaman district, West Bengal. The duration of study was 18 months – January 2023 to May 2024. Diagnosed patients of Pancreatitis, attending in-patient department of General Medicine in BMCH, during the period of data collection, were included in study population.

Results: 17.5% study subjects had severe pancreatitis, 69.5% had moderate pancreatitis and 13% had mild pancreatitis. 59.5% study subjects were within 36-54 years age group; majority were male (73.3%); 7.7% were illiterate; 22.1% were home-maker; 49.6% belonged to middle class; 35.9% were suffering from pancreatitis for >2 years. 86.5%% study subjects presented with pain abdomen, 42.9% presented nausea, 36.5% with vomiting and 40.2% complained about yellow urine. 27.5% Study subjects presented bulky pancreas on USG (whole abdomen).

Conclusion: In current study, larger number of patients were found to have moderate to severe pancreatitis. Idiopathic & alcoholic pancreatitis were most common forms. Periodic estimation of serum lipase, amylase, calcium, CRP are helpful to assess severity of pancreatitis.

Keywords: Observational study, West Bengal, Etiological Profile.

INTRODUCTION

Pancreatitis, which is most generally described as any inflammation of the pancreas, is a serious condition that manifests in either acute, chronic or acute on chronic forms leading to abdominal pain.[1] Acute pancreatitis has a sudden onset and short duration, whereas chronic pancreatitis develops gradually and worsens over time, resulting in permanent organ damage. It may result in progressive destruction of the exocrine tissue and in some patients a loss of endocrine tissue as well. However, owing to the tremendous reserve of pancreatic function, insufficiency may be subclinical at least in the beginning of the disease.

The early diagnosis of pancreatitis and its complication is still difficult and natural history as well as the prognosis of the disease remains yet to be defined. The clinical profile, complications and response to therapy may be different in different parts of the world and it is therefore important that experiences from different parts of the country be recorded.[2] Hence this study is needful to understand the various etiological factors, clinical features and complications occurring in this region.

Acute pancreatitis is defined as the inflammation of the pancreatic tissue, characterized by parenchymal

edema and necrosis caused by auto-digestion by its own glandular enzymes leading to multi-organ failure or death.[3] In the past few decades, there have been many advancements in the intensive care of patients with Acute Pancreatitis due to its association with high morbidity and mortality. As per the Indian data, no multicentric studies available only sporadic data were analyzed, thus the exact prevalence could not be assessed. The incidence was calculated from the patients admitted at different tertiary care centers all over the country.

For the management and prevention of recurrence of the disease, its etiology is to be as ascertained. The two most common etiological factors, namely alcohol and gallstones contribute 80% of the cases, with alcoholic pancreatitis being much more common. Recent recommendations state that the etiology of Acute Pancreatitis should be established in at least 80% of cases with not more than 20% being classified as idiopathic. Planning the management and delivery of care for Acute Pancreatitis requires the knowledge of the etiology as well as severity of the disease.

The severity of pancreatitis varies from mild and self-limiting to severe and fatal.[4] Severity is an important indicator of mortality and the need for intensive care, nutritional support, urgent surgical intervention, and antibiotic usage. Various scoring systems have been devised for Acute Pancreatitis such as the Atlanta Criteria,[5] which relies on evidence of organ failure and/or local complications as well as Acute Physiology and Chronic Health Evaluation II (APACHE II). Ranson et al,[6] and modified Glasgow scores based on clinical and laboratory values that assess systemic inflammation and the Balthazar Score,[7] which is based on computerized tomography (CT) findings. For the diagnosis and prognostication contrast-enhanced scoring system is good because it improves the identification at early stage with high sensitivity (100%) and accuracy (87%) by the detection of extended areas of necrosis within the pancreatic region.

Severe Acute Pancreatitis occurred in 20% patients of Pancreatitis with mortality rates of 10%–30%.8 Patients with Acute Pancreatitis have a high risk of morbidity due to local complications include pancreatic pseudocyst, pleural effusion, peritoneal collection, and pancreatic necrosis with superimposed infection, which has the highest mortality rate of 30%. The systemic complications are either single or multiorgan failure (MODS). Deaths from pancreatitis occurring during the first 2 weeks of the illness are due to multiple organ dysfunction syndrome (MODS),9 whereas deaths after 2 weeks are generally caused by pancreatic necrosis with superimposed infection. According to the recent guidelines, mortality from AP should be <10% overall and <30% in severe cases. Furthermore, all patients with severe pancreatitis or with organ failure should be managed in the high dependency unit or intensive care unit.

Studies have been done in different parts of the world regarding clinicopathological profile & outcome of acute pancreatitis. A similar study done in Bangladesh by Md Anisur Rahman et al,[10] showed that alcohol was the predominant etiology of acute pancreatitis, mostly affecting young and middle-aged male. Another study done by Patel M et al,[11] in Uttar Pradesh, India, also showed that alcohol and gall stone were most common etiological factors of Acute Pancreatitis. Not much studies can be retrieved regarding clinical & etiological profile of acute pancreatitis patients in West Bengal. In Purba Bardhaman district, no such study can be retrieved. By assessing the clinical and etiological profile of Acute Pancreatitis patients, this study has provided necessary inputs to the Program-managers for ensuring provision of care towards patients suffering from Acute Pancreatitis in public health facilities.

MATERIALS AND METHODS

It was a facility based observational study with cross-sectional design. The study was done at in-patient department of General Medicine, Burdwan Medical College & Hospital, Purba Bardhaman district, West Bengal. The duration of study was 18 months – January 2023 to May 2024. Diagnosed patients of Pancreatitis, attending in-patient department of General Medicine in BMCH, during the period of data collection, were included in study population.

Inclusion criteria:

1. Diagnosed patients of Pancreatitis (fulfilling two of three criteria – abdominal pain characteristic of acute pancreatitis, serum amylase &/or lipase level at least three times higher than upper limit of normal and characteristic findings of acute pancreatitis on abdominal ultrasonography or CT scan findings as per Atlanta classification), attending In-patient department (IPD) of General Medicine in BMCH, during the period of data collection, were included in study population.
2. Age >18 years.

Exclusion criteria:

1. Those who did not give informed consent.
2. Pregnant women.
3. History of pancreatic malignancy.

Sample size: The study included all the diagnosed cases of pancreatitis (as per inclusion & exclusion criteria of the study) attending in-patient department of General Medicine, Burdwan Medical College & Hospital, West Bengal, during the period of data collection. Ultimately, 131 study subjects were included in the study.

Sampling technique: Consecutive sampling was applied. During data collection period, the patient, fulfilling inclusion criteria of the study, with whom the researcher met first in IPD of General Medicine department in BMCH, was selected for the first interview of the day. It took approx. 10-15 minutes to complete one interview. After completion of one interview, the immediately next available patient at that moment, fulfilling eligibility criteria of the study, was selected subsequently for next interview. In this

way, 2-3 patients were interviewed per day on twice per week basis.

Study tools & techniques:

Tools

- A semi-structured, pre-designed, pre-tested schedule which includes background information of study subjects.
- Serum amylase, lipase, calcium, bilirubin, SGOT, SGPT, CRP level estimation.
- Ultrasonography (USG) Whole abdomen.
- CT scan upper abdomen to assess severity of pancreatitis. CT Severity Index (CTSI) was used to assess severity. CTSI includes both Balthazar grades & necrotic score.

Table 1: Details of Balthazar grade score & necrosis score. CTSI Score = Balthazar Grade Score + Necrosis Score.

Balthazar Grades	Interpretations	Grade Scores
A	Normal pancreas with mild pancreatitis	0
B	Focal or diffuse enlargement of the gland, with contour irregularity and inhomogeneous attenuation, but without peri-pancreatic inflammation	1
C	Grade B + peri-pancreatic inflammation	2
D	Grade C + associated single fluid collection	3
E	Grade C + two or more peri-pancreatic fluid collection or gas in pancreas or retroperitoneum	4
Extent of Pancreatic Necrosis		Necrosis Scores
Absence of necrosis		0
Necrosis of 33% pancreas		2
Necrosis of (33-50) % pancreas		4
Necrosis of >50% pancreas		6
CTSI Score	Maximum	4+6=10
	Minimum	0+0=0
Severity of Pancreatitis		As per CTSI Scores
Mild pancreatitis		0-3
Moderate pancreatitis		4-6
Severe pancreatitis		7-10

CTSI is a valid tool in Indian context12. It has been used in many similar studies in Indian context.

Techniques:

Patient-interviews (PI) were done with the semi-structured, pre-designed, pre-tested schedule:

- Relevant record reviews.
- Serum amylase, lipase, calcium, bilirubin, SGOT, SGPT, CRP level estimation.
- USG whole abdomen.
- CT scan upper abdomen.

Department of Radiology, BMCH & Department of Biochemistry, BMCH provided the necessary laboratory support for ultrasonography, CT scan & blood tests respectively.

Pre-testing of questionnaire was done at a similar setting outside the study area (in Anamoy Specialty Hospital OPD) among five patients suffering with pancreatitis and necessary modifications were done in the schedule before application in the final study.

Study variables with their operational definitions:

- Patient age: in years.
- Sex: male/female/others.
- Religion: Hindu/Muslim/others.
- Educational status: illiterate/primary/mid-school/secondary/higher-secondary/above.
- Occupational status: home-maker/un-employed/employed.
- Socioeconomic status: as per modified B G Prasad scale.
- Body Mass Index (BMI): as per WHO classification of BMI for Asian population.
- Pancreatitis: patients of acute pain abdomen with any of the following two of three criteria – abdominal pain characteristic of acute pancreatitis, serum amylase &/or lipase level at least three times higher than upper limit of normal and characteristic findings of acute pancreatitis on abdominal ultrasonography or CT scan findings as per Atlanta classification.
- Serum amylase level: normal range 40-140 U/L.
- Serum lipase level: normal range 10-160 U/L.
- Serum calcium level: normal range 8.5-10.5 mg/dl.
- Serum bilirubin level: normal range 0.1-1.2 mg/dl.
- Serum SGOT level: normal range 8-45 U/L.
- Serum SGPT level: normal range 8-56 U/L.
- Serum C-reactive protein level: normal level <0.3 mg/dl.
- Severity of pancreatitis (based on CTSI scores)

1. Mild: CTSI scores within 0-3
2. Moderate: CTSI scores within 4-6
3. Severe: CTSI scores within 7-10.

Etiology of pancreatitis:

1. Biliary: cholelithiasis &/or choledocholithiasis or dilated bile duct.
2. Alcoholic: more than 5 alcoholic drinks/day for one year or more.
3. Metabolic: high serum calcium, triglyceride level.
4. Mixed: post ERCP acute pancreatitis, auto-immune, ischemic, post-surgical and acute on chronic pancreatitis.
5. Idiopathic: when no specific cause of pancreatitis was identified.

Data Collection: Data was collected after ethical clearance and approval of the synopsis by the Institutional Ethics Committee of Burdwan Medical College and Hospital, Burdwan, West Bengal. Prior to data collection, administrative authority of Burdwan Medical College & Hospital was

communicated and briefed about the purpose of the study, their permission was also taken. During the data collection period, 2-3 randomly selected patients were interviewed per day on thrice per week basis, for convenience of data collection. Department of Radiology, BMCH & Department of Biochemistry, BMCH provided the necessary laboratory support for CT scan, USG & blood tests respectively. Necessary record reviews were also done.

Major outcome variables:

- Proportion of study subjects with mild, moderate & severe pancreatitis.
- Distribution of study subjects as per their age, sex, religion, educational status, occupational status, socioeconomic status, BMI, serum bilirubin, SGOT, SGPT, CRP, Calcium, lipase & amylase level.
- Distribution of study subjects as per their perceived symptoms.
- Association between severity of pancreatitis with various biochemical parameter and background characteristics of study subjects.

Data management & analysis: Collected data was checked for completeness & consistency and then entered in Microsoft excel sheet. The principles of descriptive statistics were applied to organize and present the data in tables and diagrams. Qualitative data was expressed in proportion. Data analysis was done by using Statistical Package for Social Sciences (SPSS) version 23. Association between severity of pancreatitis with biochemical, radiological parameters and various background related characteristics of study subjects was checked by using Chi-square test. P-value ≤0.05 was considered statistically significant. Multivariable logistic regression analysis was done to find statistically significant predictors of pancreatitis.

RESULTS

Table A.1: Distribution of study participants as per their Age (n=131)

Age (in years)	Frequency (%)
18-36	13 (10)
36-54	78 (59.5)
>54	40 (30.5)
Total	131
Mean age	48.53 years
Standard Deviation (SD)	8.937 years

[Table A.1] shows that out of 131 study subjects, 78 (59.5%) were within 36-54 years age group. Nearly 13 (10%) study subjects were within 18-36 years age group. Another 40 (30.5%) study subjects were >54 years old. Mean age was 48.53 years (SD ±8.937 years).

Table A.2: Distribution of study participants as per their Gender (n=131)

Gender	Frequency (%)
Male	96 (73.3)
Female	35 (26.7)
Total	131

[Table A.2] shows that out of 131 study subjects, majority were male (73.3%).

Table A.3: Distribution of study participants as per their Religion (n=131)

Religion	Frequency (%)
Hindu	71 (54.2)
Muslim	38 (29)
Others	22 (16.8)
Total	131

*Others include Christians.

[Table A.3] shows that majority of the study subjects (54.2%) were Hindu, followed by Muslims.

Table A.4: Distribution of study participants as per their Educational Status (n=131)

Educational Status	Frequency (%)
Illiterate	10 (7.7)
Primary (up to class IV)	28 (21.4)
Mid-school (up to class VIII)	14 (10.7)
Secondary (up to class X)	54 (41.2)
Higher-secondary (up to class XII)	18 (13.7)
Graduate & above	7 (5.3)
Total	131

[Table A.4] shows that 10 (7.7%) study subjects were illiterate; around 72 (54.9%) study subjects were found to have secondary & higher-secondary level education.

Table A.5: Distribution of study participants as per their Occupational Status (n=131)

Occupational Status*	Frequency (%)
Home-maker	29 (22.1)
Un-employed	23 (17.6)
Employed	79 (60.3)
Total	131

[Table A.5] shows that majority (60.3%) of the study subjects were employed; nearly 22.1% were home-maker & 17.6% were un-employed.

Table A.6: Distribution of study participants as per their Socioeconomic Status (SES) (n=131)

SES	Frequency (%)
I (Upper)	10 (7.6)
II (Upper-middle)	25 (19.2)
III (Middle)	65 (49.6)
IV (Lower-middle)	21 (16)
V (Lower)	10 (7.6)
Total	131

*As per Modified B G Prasad classification. [All India CPI-IW value for October 2023 stands at 138.4]
[Table A.6] shows that 31 (23.6%) study subjects represented lower and lower-middle class; whereas 7.6% from upper class and 49.6% from middle class.

Table A.7: Distribution of study participants as per Duration of illness (n=131)

Duration of illness	Frequency (%)
<1 year	48 (36.6)
1-2 years	36 (27.5)
>2 years	47 (35.9)
Total	131

[Table A.7] shows that out of 131 study participants, 36 (27.5%) were suffering from pancreatitis for 1-2 years. Nearly 47 (35.9%) had pancreatitis for >2 years.

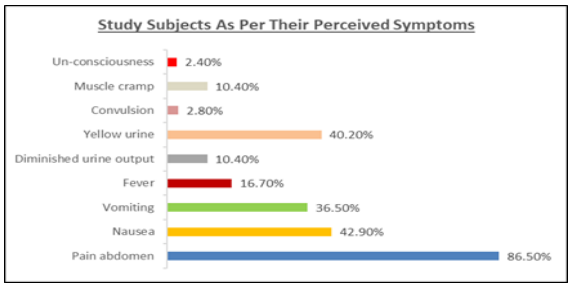

Figure A.1: Distribution of study subjects as per their perceived symptoms (n=131).

[Figure A.1] shows that majority (86.5%) of the study subjects had pain abdomen, followed by nausea (42.9%), yellow urine (40.2%), vomiting (36.5%), fever (16.7%), diminished urine output (10.4%), muscle cramp (10.4%), convulsion (2.8%) and un-consciousness (2.4%).

Part-B: Biochemical Parameters

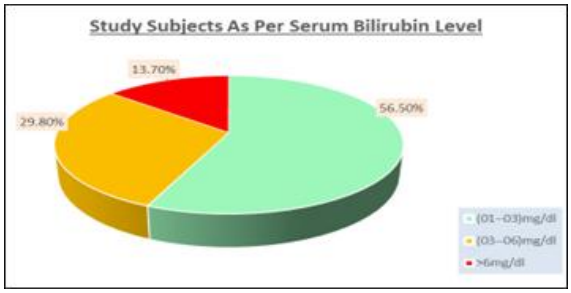

Figure B.1: Distribution of study participants as per serum bilirubin level (n=131).

[Figure B.1] shows that out of 131 study participants, 18 (13.7%) study subjects had serum bilirubin level >6mg/dl and 39 (29.8%) had serum bilirubin level within 3-6mg/dl.

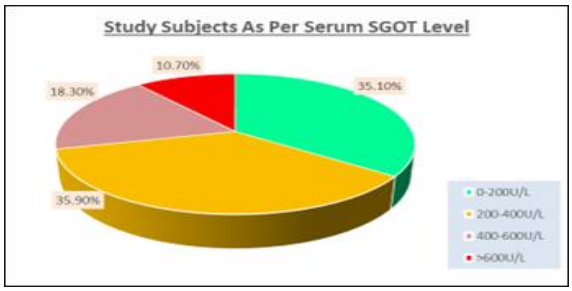

Figure B.2: Distribution of study subjects as per serum SGOT level (n=131).

[Figure B.2] shows that 47 (35.9%) study subjects had serum SGOT level within 200-400 U/L, 24 (18.3%) had serum SGOT level within 400-600 U/L and 14 (10.7%) had serum SGOT level >600 U/L.

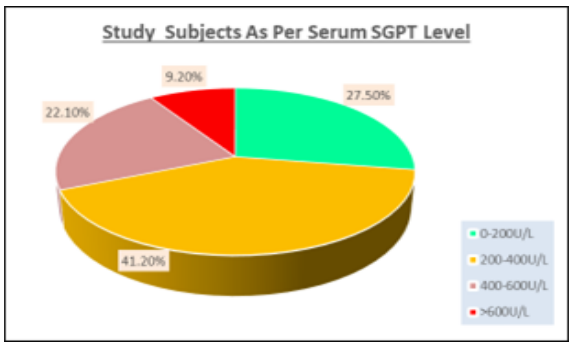

Figure B.3: Distribution of study subjects as per serum SGPT level (n=131).

[Figure B.3] shows that 54 (41.2%) study subjects had serum SGPT level within 200-400 U/L, 29 (22.1%) had serum SGPT level within 400-600 U/L and 12 (9.2%) had serum SGPT level >600 U/L.

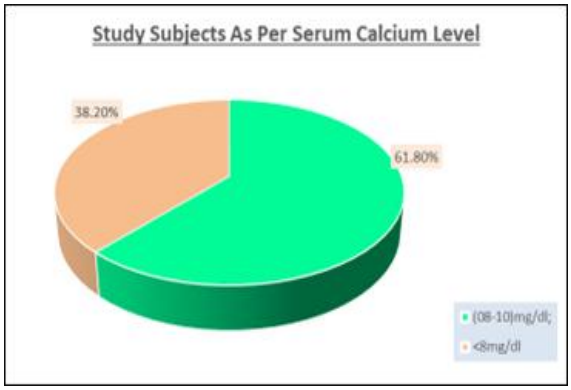

Figure B.4: Distribution of study subjects as per serum Calcium level (n=131).

[Figure B.4] shows that 50 (38.2%) study subjects had serum calcium level <8mg/dl.

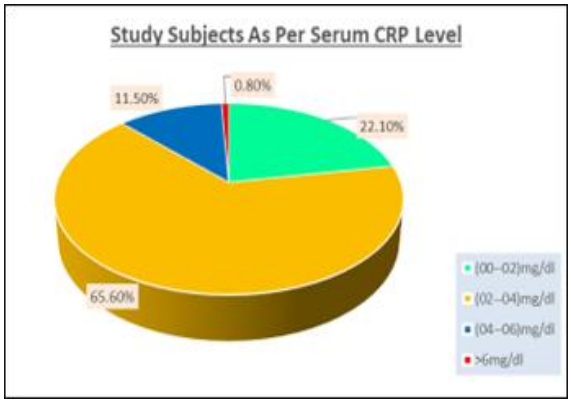

Figure B.5: Distribution of study subjects as per serum CRP level (n=131).

[Figure B.6] shows that out of 131 study subjects, 15 (11.5%) had serum CRP level within 4-6 mg/dl and only 1 (0.8%) study subject had serum CRP level >6mg/dl.

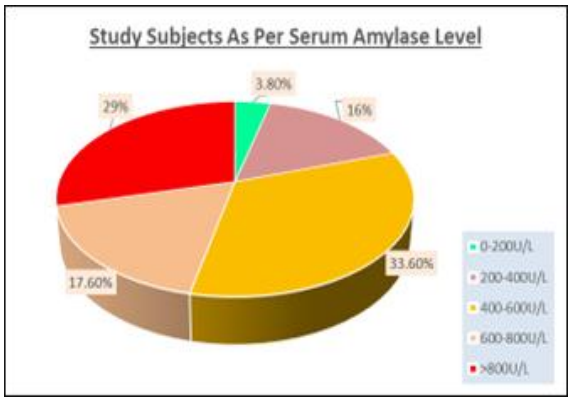

Figure B.6: Distribution of study subjects as per serum Amylase level (n=131).

[Figure B.6] shows that out of 131 study subjects, 38 (29%) had serum amylase level >800U/L, and 24 (17.6%) had serum amylase level within 600-800U/L.

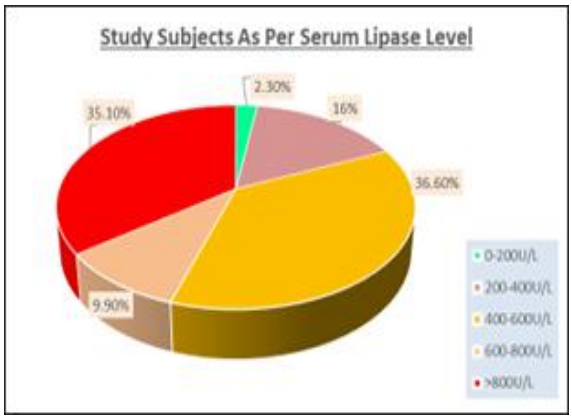

Figure B.7: Distribution of study subjects as per serum Lipase level (n=131).

[Figure B.7] shows that out of 131 study subjects, 46 (35.1%) had serum lipase level >800U/L and another 13 (9.9%) had serum lipase level within 600-800 U/L.

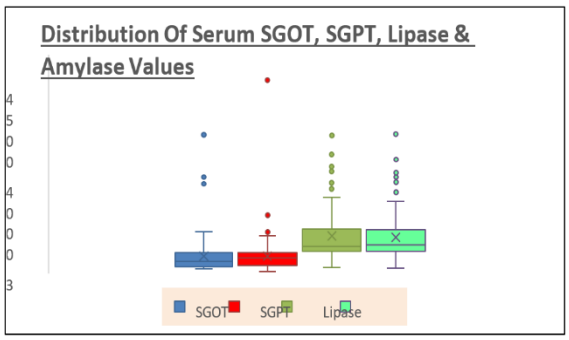

Figure B.8: Box & Whisker diagram showing distribution of serum SGOT, SGPT, Lipase & Amylase level (n=131).

[Figure B.8] shows that serum SGOT & SGPT values are very much concentrated around their mean values. Few outlier values were noted in its data set. Larger number of outlier values are found in serum lipase & amylase values.

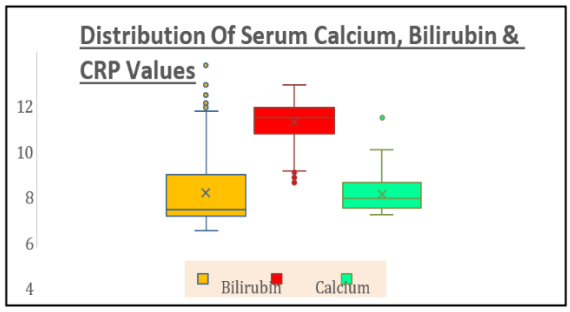

Figure B.9. Box & Whisker diagram showing distribution of serum Bilirubin, Calcium & CRP level (n=131).

[Figure B.9] Shows that serum CRP values are well condensed around its mean, whereas outlier values are found in serum bilirubin & calcium data set.

Table B.1: Distribution of serum bilirubin, SGOT, SGPT, Calcium, CRP, lipase & amylase values among study subjects (n=131).

Serial No	Tests	Mean value	SD*	Minimum obtained value	Maximum obtained value
1.	Bilirubin (mg/dl)	3.373	2.2779	1.0	11.2
2.	SGOT (U/L)	359.56	371.110	102	2864
3.	SGPT (U/L)	359.57	383.293	43	3983
4.	Calcium (mg/dl)	7.720	1.3644	4	10
5.	CRP (mg/dl)	3.277	1.0736	2	8
6.	Lipase (mg/dl)	772.33	533.350	128	2850
7.	Amylase (mg/dl)	747.83	519.364	114	2903

*SD means Standard Deviation.

[Table B.1] shows that mean value of serum lipase (772.33mg/dl) & amylase (747.83mg/dl) are very high, mean value of serum calcium (7.720mg/dl) was low and mean value of serum SGOT & SGPT are moderately high with high standard deviation values.

Part C: Radiological Parameters

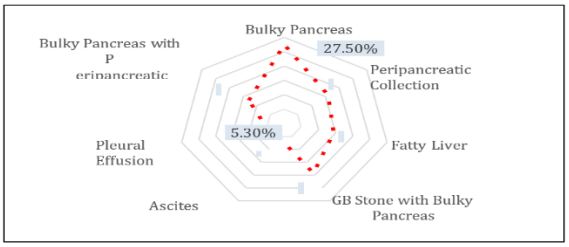

Figure B.10: Spider diagram showing distribution of study subjects as per their USG (whole abdomen) findings (n=131).

[Figure B.10] shows that 27.5% study subjects had bulky pancreas alone; whereas, around 16% study subjects had peripancreatic collection, 15% had fatty liver, 19.1% had GB stone with bulky pancreas and Around 13% study subjects had bulky pancreas with peripancreatic collection.

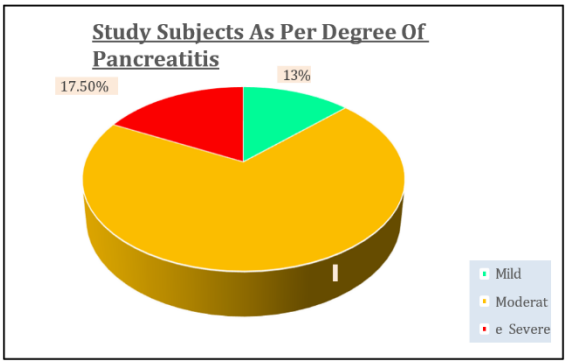

Figure B.11: Distribution of study subjects based on severity of pancreatitis (n=131).

[Figure B.11] shows that out of 131 study subjects, 17 (13%) had mild pancreatitis, 91 (69.5%) had moderate pancreatitis and 23 (17.5%) had severe pancreatitis.

Part-D: Complications

[Figure D.1] shows that 16% study subjects had pseudocyst pancreas, 31.3% had pancreatic infection, 19.8% had pleural effusion, 13.7% had ascites, 14.5% had renal failure and 4.6% had altered sensorium.

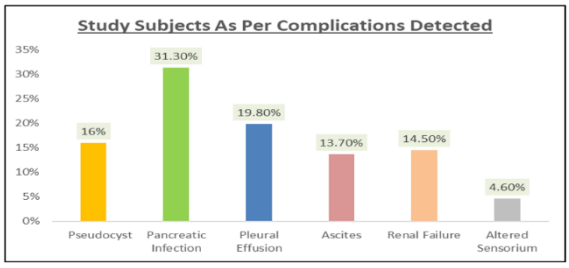

Figure-D.1. Distribution of study subjects as per complications detected (n=131).

Part E: Etiological Factors

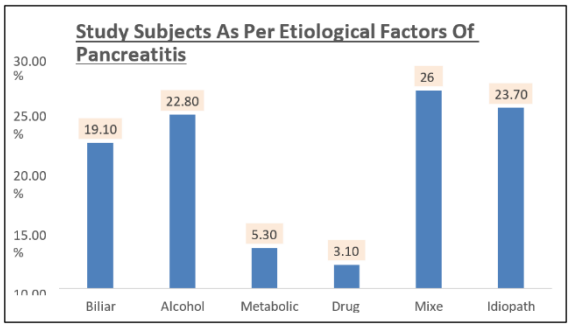

Figure E.1: Distribution of study subjects as per etiological factors (n=131).

[Figure E.1] shows that out of 131 cases of pancreatitis, 19.1% was due to biliary cause, 22.8% due to alcoholic cause, 5.3% due to metabolic cause, 3.1% due to drugs, 26% due to mixed cause, 23.7% due to idiopathic cause.

Part F: In-hospital Clinical Outcome

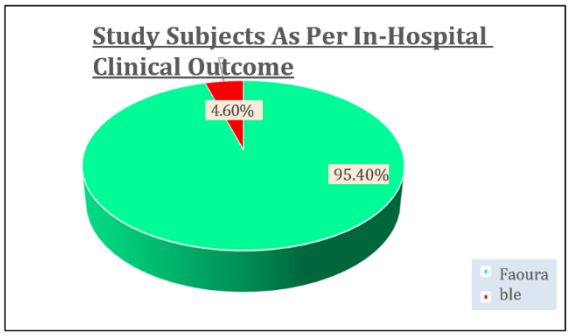

Figure F.1: Distribution of study subjects as per in-hospital clinical outcome (n=131).

*In-hospital clinical outcome assessed by review of death & discharge registers in IPD.

[Figure F.1] shows that out of 131 study subjects, 6 (4.6%) study subjects had poor in-hospital clinical outcome (death).

Part-G

Relationship between severity of pancreatitis with various biochemical parameter and background characteristics of study participants.

Table G.1: Bivariate analysis between background characteristics of study participants & severity of pancreatitis (n=131)

Background characteristics	Total study subjects (N=131)	Frequency of study subjects with pancreatitis			Chi Square test ($\chi 2$)		
		Mild (n=17)	Moderate (n=91)	Severe (n=23)	($\chi 2$) value	Degree of freedom (df)	p-value
Age (in years)							
18-36	13	2	9	2	1.477	4	0.831
36-54	78	8	55	15			
>54	40	7	27	6			
Serum Bilirubin (mg/dl)							
1-3	74	14	50	10	8.626	4	0.071
3-6	39	3	29	7			
>6	18	0	12	6			
Serum SGOT level (U/L)							
0-200	46	5	33	8	7.188	6	0.304
200-400	47	8	34	5			
400-600	24	4	15	5			
>600	14	0	9	5			
Serum SGPT level (U/L)							
0-200	36	9	17	10	13.551	6	0.035
200-400	54	4	44	6			
400-600	29	2	22	5			
>600	12	2	8	2			
Serum lipase level (U/L)							
0-200	3	0	3	0	2.677	8	0.953
200-400	21	2	16	3			
400-600	48	7	32	9			
600-800	13	1	9	3			
>800	46	7	31	8			
Serum amylase level (U/L)							
0-200	5	0	4	1	10.697	8	0.219
200-400	21	1	16	4			
400-600	44	6	35	3			
600-800	23	5	14	4			
>800	38	5	22	11			
Serum calcium level (mg/dl)							
8-10	81	5	64	12	11.265	2	0.004
<8	50	12	27	11			
Serum CRP level (mg/dl)							
0-2	29	0	25	4	19.980	6	0.003
2-4	86	12	61	13			
4-6	15	5	5	5			
>6	1	0	0	1			

In [Table G.1] statistical association is analyzed by using Chi-square test between severity of pancreatitis among study subjects and their various background characteristics. Severity of pancreatitis is statistically associated with serum calcium level (p-value 0.004) and serum SGPT level (p-value 0.035) and serum CRP level (p-value 0.003) of study subjects.

DISCUSSION

The present study was supposed to assess the status of thyroid function among Rheumatoid arthritis patients and its predictors in a tertiary care centre of West Bengal, India.

The current study findings are illustrated in detail in previous chapter. Here, the various findings of the current study are compared/interpreted in the context of other relevant studies/evidences, both nationally & internationally.

In our current study, majority of the study subjects were within 36-54 years age group. Male predominance was evident. Majority of the patients were Hindu. Educational status among the study subjects was basically low. Majority of the study subjects were employed. Study subjects mostly represented from middle & lower middle class. A significant portion of study subjects were found to have pancreatitis more than two years. Majority of study subjects had pain abdomen, nausea, vomiting, yellow urine. Significant proportion of patients had raised serum bilirubin. Serum SGOT, SGPT level was also significantly high among majority of study subjects. Serum calcium level was low in large number of patients. serum CRP level was high among significant number of patients. large number of patients had raised serum lipase & amylase level. significant number of patients on USG whole

abdomen showed bulky pancreas and peripancreatic collection. Majority number of patients showed moderate to severe degree pancreatitis. Pseudocyst & pancreatic infection were the most frequently occurring complications. Idiopathic & alcoholic pancreatitis were most commonly found. In hospital clinical outcome was high. Serum level of SGPT, Calcium & CRP were found to be associated with severity of pancreatitis.

The global scenario regarding clinical & etiological factors of pancreatitis in tertiary care center was somewhat similar but with wide variability. Several studies from Chennai, Gujrat, Manipur, Andaman, Nepal, Pakistan, Sri Lanka, Nigeria, Ethiopia did hint about the lack of care in such treatment facilities. Dalal AD et al,[13] (2023) showed that Patients' demographic details, clinical findings, duration of hospital stay, complications, and interventions were recorded. Chauhan Y et al,[14] (2018) showed that Rise in total leucocyte count, serum amylase level and low calcium levels were significantly associated with increase in pancreatic/extra-pancreatic complications. Parmar H et al,[15] (2021) showed that acute Pancreatitis is a common disease with wide clinical variation and its incidence is increasing. Acute pancreatitis is an inflammatory process leading to abdominal

pain, progressive destruction of exocrine tissue and in some patients a loss of endocrine tissue as well, with multiple organ failure and high mortality. Severity of acute pancreatitis is linked to the presence of systemic organ dysfunction and/or necrotizing pancreatitis. The present study was aimed to study the clinical profile of acute pancreatitis, the etiology and complications of acute pancreatitis received treatment in the Department of Surgery, Tripura Medical College & Dr. BRAM Teaching Hospital, Agartala, Tripura. Materials and Methods: This was a hospital based retrospective study which was conducted from January 2019 to December 2019. All patients with a diagnosis of acute pancreatitis were included in this study in order to find out the clinical presentations from the available clinical, laboratory and radiological data. Of the 100 patients in this study, 96 were male and 4 were female. Minimum age in their study was 10 years and maximum were 70 years. Maximum numbers of patients were below 45 years of age. Alcohol was identified as the most important etiological factor associated with acute pancreatitis. Among the known etiological factors 90% of the cases were related to alcoholism and 4% were due to gall stone disease. Abdominal pain and vomiting were the most common symptoms in their study. Epigastric tenderness was present in 90% of the cases and guarding/rigidity in 50% of cases. 14% patients showed jaundice as a sign of acute pancreatitis. There was no major difference between the CT grading system and clinical grading system. Most of the patients recovered with conservative treatment. Adverse outcome was noted in one patient with acute necrotizing pancreatitis. Acute pancreatitis is one of the leading causes of increase in morbidity and mortality to society. Clinical assessment along with radiological findings correlated well with the morbidity and mortality. Their study identifies alcoholism as one of the most important etiological factors. The current study was one of those rare studies in West Bengal which assessed status of thyroid dysfunction among RA patients and analyzed its predictors. The study was unicentric, it also demonstrated background characteristics of study subjects. But this does not deter future researchers to conduct larger studies in this domain, particularly for studies with longitudinal design. This study paved the way for future studies to diminish gaps in provision of care for patients with thyroid dysfunction & Rheumatoid arthritis.

CONCLUSION

In current study, larger number of patients were found to have moderate to severe pancreatitis. Idiopathic & alcoholic pancreatitis were most common forms.

Periodic estimation of serum lipase, amylase, calcium, CRP are helpful to assess severity of pancreatitis.

CTSI scoring is helpful grading of pancreatitis. Serum calcium, CRP and SGPT levels are found to be significantly associated with pancreatitis. Hence, early screening for pancreatitis can help to reduce morbidity pattern among such patients.

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