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COMPARISON OF BISAP VSMCTSI IN ACUTE PANCREATITIS-ITS CORELATION WITH PATIENTS MORBIDITY.

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ABSTRACT

Background: Theaim of the study was to compare BISAPVSMCTSI in acute pancreatitis in predicting there correlation with morbidity and mortality.

Material/Method: Thiswasahospitalbasedretrospectiveandprospective study conducted in department of gastroenterology, SKIMS, Soura, Srinager, Kashmirfora period of2 years w.e.f.september2017 to september 2019 on patients of all age groups with clinical,laboratory,imagingfindingssuggestiveofacutepancreatitis.The protocol of the study was approved by the institutional ethical committee. Patients admitted acute pancreatitis to our hospital were included inour study.

Results And Conclusion: 650patientsofacutepancreatitiswhopresented to emergency department were included in the study. 235 (36.2%) were malesand415(63.8%)were females. Gallstone was the most common 41.5% followed by idiopathic group 31.2% andbiliaryascariasis8.5%. According to Atlanta classification 316(48.6%) had mild AP, 160(24.6%) had moderately severe AP and 174(26.8%) had severe AP. According to MCTSI299(46%) had mild AP, 182(28%)had moderately severe AP and 169(26%)had severe AP. BISAPscore was used to calculate the severity and mortality of AP. Patients with BISAP score 4 had mortality rate 88.9%(56) and those with BISAP score of 3 had mortality rate 33.3%(29).Those with BISAP score of 0,1,2 had no mortality. On comparision of BISAP score and MCTSI in predicting severity of AP, it was found that 74% patients had BISAP score less than 3 and MCTSI between 0-6. Remaning 26% patients had BISAP score more than 3 and MCTSI between 8-10.This means that both scores BISAP and MCTSI can beused to access the severity of acute pancreatitis. This correlation was accessed statistically by using chi-squar whose value was calculated to be 1.5 and p-value was 0.221, which was stastically insignificant. Means that both the scores can be used to access the severity of acute pancreatitis during early stage.

KEYWORDS :

INTRODUCTION

The diagnosis of acute pancreatitis requires two of the following three[1]:

1. Abdominal pain consistent with acute pancreatitis (acute onset of a persistent, severe, epigastric pain often radiating to the back)
2. Serum lipase activity (or amylase activity) at least three times greater than the upper limit of normal; and
3. Characteristic findings of acute pancreatitis on contrast-enhanced computed tomography (CECT) and less commonly magnetic resonance imaging (MRI) or trans abdominal ultrasonography[4].

Acute pancreatitis is mild and resolves itself without serious complications in 80% of patients, but it has complications and a substantial mortality in up to 20% of patients despite the aggressive intervention[2]. Abdominal ultrasound (US) examination is the best way to confirm the presence of gallstones in suspected biliary pancreatitis . A CT allows identification of pancreatic edema, fluid or cysts, and the severity of pancreatitis to be graded, detects complications including development of pseudocysts, abscess, necrosis, hemorrhage, and vascular occlusion.

MRCP has been found to be as accurate as contrast-enhanced CT in predicting the severity of pancreatitis and identifying pancreatic necrosis but is less sensitive for detection of small stones.Endoscopic Ultrasonography is useful in obese patients and patients with ileus, and can help determine which patients with acute pancreatitis would benefit most from therapeutic ERCP[3,4].

A variety of scoring systems have been proposed for accurate assessment of the severity of acute pancreatitis. These include the clinical scoring scales as Ranson's criteria, Glasgow scales, simplified acute physiology (SAP) score and acute physiology and chronic health evaluation II (APACHE II) score. The CT severity index (CTSI) derived by Balthazar grading of pancreatitis and the extent of pancreatic necrosis is now widely used in describing CT findings of acute pancreatitis and serves as the radiological scoring system.[5]Ranson identified a series of prognostic signs for early identification of patients with severe pancreatitis. Morbidity and mortality of the disease are directly related to the number of signs present. It is important to realize that Ranson's prognostic signs are best used within the initial 48 hours of hospitalization and have not been validated for later time interval . Another set of criteria often used to assess the severity of pancreatitis is the acute physiology and chronic health evaluation (APACHE-II) score.

The main advantage of the APACHE-II scoring system is the

immediate assessment of the severity of pancreatitis.

The risk of severe acute pancreatitis is increased at Glasgow's or Ranson's score ≥3 in 48 hours, APACHE II on admission ≥8, Balthazar's score ≥4. The morphologic severity of pancreatitis was assessed using the CTSI developed by Balthazar et al[6] and the MCTSI, developed by Mortele et al.[7]

CT Severity Index[4]

Prognostic indicator	Score
Pancreatic inflammation	
Grade A: Normal pancreas	0
Grade B: Focal or diffuse enlargement of the pancreas	1
Grade C: Intrinsic pancreatic abnormalities with inflammatory changes in peripancreatic fat	2
Grade D: Single, ill-defined fluid collection or phlegmon	3
Grade E: Two or more poorly defined collections or presence of gas in or adjacent to the pancreas	4
Pancreatic necrosis	
None	0
≤30%	2
<30–50%	4
≥50%	6

0–3 points: Mild pancreatitis, 4–6 points: Moderate pancreatitis, 7–10 points: Severe pancreatitis

Modified Computed Tomography Index[8]

Prognostic indicator	Points
Pancreatic inflammation	
Normal pancreas	0
Intrinsic pancreatic abnormalities with or without inflammatory changes in par pancreatic fat	2
Pancreatic or peripancreatic fluid collection or peripancreatic fat necrosis	4
Pancreatic necrosis	
None	0
<30%	2
≥30%	4

0–3 points: Mild pancreatitis, 4–6 points: Moderate pancreatitis, 7–10 points: Severe pancreatitis

Singh VK et al(2009)[8] prospectively evaluated the ability of the bedside index for severity in acute pancreatitis (BISAP) score to predict mortality as well as intermediate markers of severity in a tertiary center.Among 397 cases, there were 14 (3.5%) deaths. There was a statistically significant trend for increasing mortality ($P < 0.0001$) with increasing BISAP score. The area under the receiver operating curve for mortality by BISAP score in the prospective cohort was 0.82 (95% confidence interval: 0.70, 0.95), which was similar to that of the previously published validation cohort. A BISAP score >or=3 was associated with an increased risk of developing organ failure (odds ratio=7.4, 95% confidence interval: 2.8, 19.5), persistent organ failure (odds ratio=12.7, 95% confidence interval: 4.7, 33.9), and pancreatic necrosis (odds ratio=3.8, 95% confidence interval: 1.8, 8.5). They concluded that BISAP score represents a simple way to identify patients at risk of increased mortality and the development of intermediate markers of severity within 24 h of presentation. This risk stratification capability can be utilized to improve clinical care and facilitate enrollment in clinical trials.

RaoBSet al. (2014)[9] revealed that acute pancreatitis is an inflammatory process of the pancreas with involvement of regional tissues or remote organ systems and with potentially devastating consequences. Early prediction of outcome of acute pancreatitis within 24hrs by clinically based bed Side Index of Severity of Acute Pancreatitis [BISAP] Score and radiological based CT Severity Index [CTSI] later on being useful in initiation of early treatment, assessing severity, to prevent morbidity and mortality. In those who survive, it can progress to chronic pancreatitis resulting in malabsorption and permanent diabetes. The aim was to study aetiology, clinical profile, severity, outcome of acute pancreatitis in relation to BISAP Score and CTSI. This was an observational and prospective study. The present study enrolled 55 patients who were diagnosed as acute pancreatitis and patients with chronic pancreatitis were excluded from the study. Vital data like pulse rate, blood Pressure, temperature, respiratory rate, conscious level using Glasgow coma scale, serum amylase, lipase, Chest x-ray, US abdomen and CT abdomen [both CECT & NCCT] were done. BISAP Score was obtained at the time of presentation or within 24 hours of presentation and radiological based CT Severity Index [CTSI] was calculated using the Balthazar grading system and Necrosis Scoring system to assess the severity, morbidity and mortality. In this study, the most common aetiology being alcohol intake followed by gall stones. BISAP Score<2 predicted mild pancreatitis, Score>3 had organ dysfunction and Score 4 had 100% mortality. The relation between CTSI score and Organ dysfunction showed increased organic dysfunction and higher mortality with higher CTSI Scores ,P value < 0.0001 was calculated using Pearson Chi-square test and found to be statistically significant. Both BISAP and CTSI scores had positive correlation with morbidity and mortality.

Raghuwanshi S et al (2016)[10] carried out a prospective study of 50 cases of acute pancreatitis. The severity of pancreatitis was scored using CTSI, modified severity index and revised using CT severity index and Atlanta classifications and classified into mild, moderate, severe categories. Gall stone disease was the most common etiological factor in 40% cases, it was more in females than males. Alcohol was 2nd most common etiological factor seen in 38% cases and was noted only in males. Pleural effusion was the most common extra-pancreatic complication seen in 46%. Balthazar grade C was the most common in 40%, followed by grade D and E (25% each). Acute pancreatic collection was the most common finding seen in 72% case. Majority of the cases (42%) were categorized as mild pancreatitis according Balthazar CTSI score. Majority of the cases (44%) were categorized as severe pancreatitis according modified CTSI. Death was more seen in severe grade in modified CTSI and revised Atlanta classification.

Chand P et al. (2017)[11] evaluated the outcome of acute pancreatitis by Ranson's criteria and modified CT severity index and found the most common cause of pancreatitis was alcohol abuse. As per Ranson's score, 11 out of 30 (36.6%) patients were diagnosed as having mild pancreatitis and 19 out of 30 (63.3%) patients were diagnosed as having severe pancreatitis. Based on CECT findings, maximum number of patients 18 (60%) included in this study had moderate, 9 (30%) had severe and 3 (10%) patients had mild pancreatitis. MCTSI proved to be a significant investigation in identifying local complications. Though the presence of 3 or more Ranson's criteria showed increased risk for complications, but the results did not reach statistical significance. The study concluded that Ranson's and MCTSI plays an important role in predicting severity, morbidity and mortality of acute pancreatitis.

MATERIAL AND METHODOLOGY

This was a hospital based study conducted in the Department of Gastroentrology in a tertiary care institute for a period of 2 years on patients of all age groups with clinical/ Laboratory/ imaging findings suggestive of acute pancreatitis.

Patients having the following condition were excluded;
1.Chronic calcific pancreatitis
2.Those patients refusing consent for participation

All the participants were thoroughly interviewed and subjected to clinical and laboratory examination. Contrast enhanced computerized tomography (CECT) of abdomen was done to stage the severity according to modified Computed Tomography Severity Index (MCTSI)[12] when

required. Severity was assessed by BISAP[13] scoring system at presentation and after 48 hours of admission.

BISAP scoring system

BUN > 25 mg/dl
Impaired mental status (Glasgow Coma Scale Score < 15)
SIRS
SIRS is defined as
two or more of the following:
(1) Temperature of < 36 or > 38 °C
(2) Respiratory rate > 20 breaths/min or P_aCO_2 < 32 mm Hg
(3) Pulse > 90 beats/min
(4) WBC < 4,000 or > 12,000 cells/mm^3 or > 10% immature bands
Age > 60 years
Pleural effusion detected on imaging

BISAP, bedside index for severity in acute pancreatitis; SIRS, systemic inflammatory response syndrome.
One point is assigned for each variable within 24 h of presentation and added for a composite score of 0–5.

Investigations:

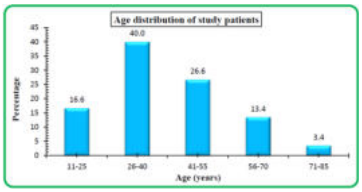
- CBC
- RFT
- LFT
- Lipid profile
- CXR (PA view)
- USG abdomen/pelvis
- Urine R/E
- BS(F)/BS(R)
- Serum amylase
- Serum lipase
- Serum calcium
- Serum magnesium
- Serum phosphate
- LDH
- ABG
- 12 lead electrocardiogram
- PTH
- USG abdomen
- USG thyroid gland
- CFTR/SPINK mutation
- D dimer /CRP
- CECT abdomen
- MRCP
- ERCP
- Any other investigation if required

Statistical Analysis:

The data shall be recorded in n (%) or mean ± SD, whichever is applicable and accordingly appropriate statistical test shall be applied.

Table 1: Age distribution of study patients

Age (Years)	Frequency	Percentage
11-25	108	16.6
26-40	260	40.0
41-55	173	26.6
56-70	87	13.4
71-85	22	3.4
Total	650	100
Mean±SD=40.1±12.83		

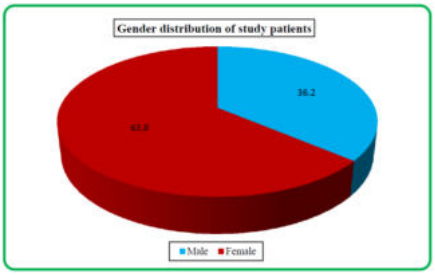


Majority of patients i.e. 260 (40%) in this study were 26-40 years of age, followed by 73 (26.6%) patients who belonged to age group of 41-55 years, 108 (16.6%) were aged 11-25 years, 87 (13.4%) patients were 56-70 years of age while as 22 (3.4%) patients aged 71-85 years. The mean age of our study patients was 40.1±12.83.

This table concluded that majority of the patients of acute pancreatitis were young between 26 yr - 55 yr. The mean age of our study patients was 40.1±12.83.

Table 2: Gender distribution of study patients

Gender	Frequency	Percentage
Male	235	36.2
Female	415	63.8
Total	650	100
Female:Male=1.8:1		



There was female predominance in this study with 415 (63.8%) females versus 235 (36.2%) males. The female to male ratio in this study was 1.8:1.

This table concluded that majority of the patients were females as compared to males with female to male ratio 1.8:1.

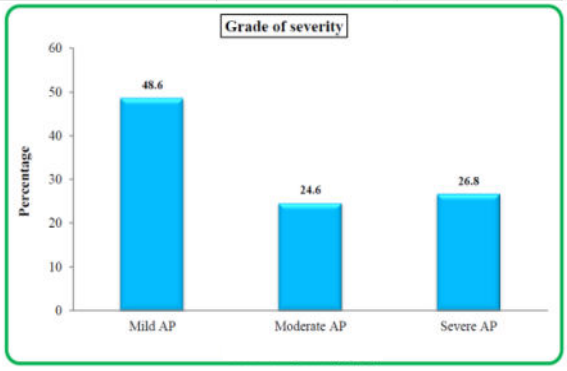
Table 3: Etiological profile with gender distribution

Etiology	Male		Female		Total	
	No.	%age	No.	%age	No.	%age
Gall stone pancreatitis	74	31.5	196	47.2	270	41.5
Idiopathic	76	32.3	120	28.9	196	30.2
Ascariasis induced AP	19	8.1	36	8.7	55	8.5
Drug	14	6.0	13	3.1	27	4.2
Hyperparathyroidism	14	6.0	6	1.4	20	3.1
Hypertriglycredemia	13	5.5	7	1.7	20	3.1
Pancreatico biliary tumor	7	3.0	13	3.1	20	3.1
Pregnancy	0	0.0	14	3.4	14	2.2
Alcohol	8	3.4	0	0.0	8	1.2
Trauma	4	1.7	4	1.0	8	1.2
Autoimmune AP	1	0.4	4	1.0	5	0.8
Pancreatic Divisum	3	1.3	2	0.5	5	0.8
Annular pancreas	2	0.9	0	0.0	2	0.3
Total	235	100	415	100	650	100

Gall stone pancreatitis was seen in 74 (31.5%) males and 196 (47.2%) females, Idiopathic 76 (32.3%) males and 120 (28.9%) females, Ascariasis induced AP was observed in 19 (8.1%) males and 36 (8.7%) females, Drug in 14 (6.0%) males and 13 (3.1%) females, Hyperparathyroidism in 14 (6%) males and 6 (1.4%) females, Hypertriglycredemia was observed in 13 (5.5%) males and 7 (1.7%) females, Pancreatico biliary tumor in 7 (3.0%) males and 13 (3.1%) females, Pregnancy in 14 (3.4%) females, Alcohol consumption in 8 (3.4%) males, Trauma in 4 (1.7%) males and 4 (1.0%) females, Autoimmune AP was observed in 1 (0.4%) males and 4 (1.0%) females, Pancreatic Divisum was seen in 3 (1.3%) males and 2 (0.5%) females and, Annular pancreas was found in 2 (0.9%) males.

This table concluded that gallstone is the mc cause of AP followed by idiopathic group, ascariasis, drug, hyperparathyroidism, hypertriglycredemia, pregnancy, alcohol, trauma, AIP, PD least common annular pancrease.

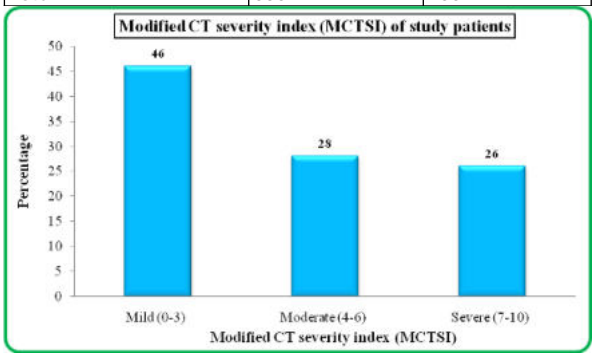
Table 4: Grade of severity		
Grade	Frequency	Percentage
Mild AP	316	48.6
Moderate AP	160	24.6
Severe AP	174	26.8
Total	650	100



Out of 650 patients studied, 316 (48.6%) had severe acute pancreatitis, 174 (26.8%) had moderate acute pancreatitis whereas moderate acute pancreatitis was observed in 160 (24.6%) patients.

According to revised Atlanta classification 48.6% had mild acute pancreatitis, 24.6% had moderate and 26.8% had severe acute pancreatitis in our study.

Table 5: Modified CT severity index (MCTSI) of study patients		
MCTSI	Frequency	Percentage
Mild (0-3)	299	46
Moderate (4-6)	182	28
Severe (7-10)	169	26
Total	650	100

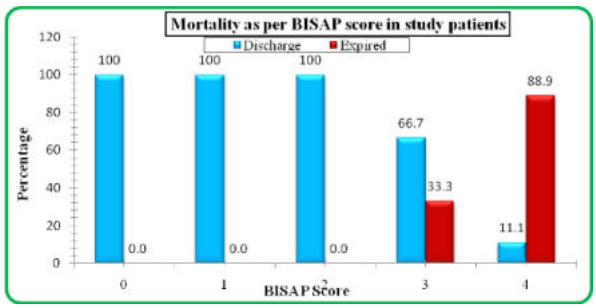


Majority of our patients had mild (0-3) severity index 299 (46%), moderate (4-6) severity index was seen in 182 (28%), 169 (26%) had severe modified CT severity index (7-10).

According to MCTSI 46% had mild AP, 28% with moderate AP and 26% with SAP.

Table 6: Mortality as per BISAP score in study patients					
BISAP Score	Discharge		Expired		P-value
	No.	%age	No.	%age	
0	221	100	0	0.0	<0.001*
1	157	100	0	0.0	
2	122	100	0	0.0	
3	58	66.7	29	33.3	
4	7	11.1	56	88.9	
Total	565	86.9	85	13.1	

Statistically Significant (P-value <0.05)



When outcome was compared on the basis of BISAP score it was observed that 56 (88.9%) patients with BISAP score 4 expired, 29 (33.3%) patients with BISAP score 3 expired.

This table concluded that high BISAP score >4 had statistically significant high mortality as compared to low score.

Table 7: Comparison of BISAP Vs CTSI in predicting SAP				
Severity	MCTSI	%age	BISAP	%age
Mild AP	0-2	46%	<3	76.93%
Moderate AP	4-6	28%		
Severe AP	8-10	26%	>3	23.07%
Chi-square=1.5; P-value=0.221				

46% of patients with mild acute pancreatitis had <3 BISAP score and 0-2 CTSI scoring, 28% patients with moderate acute pancreatitis had <3 BISAP score and 4-6 CTSI scoring while 26% patients with severe acute pancreatitis had >3 BISAP score and 8-10 CTSI scoring.

This table concluded that there is no statistically significant difference between severity of SAP calculated by BISAP and MCTSI i.e. either of the two scores can be used to calculate severity of the AP.

DISCUSSION

Acute pancreatitis (AP) is a common emergency, accounting for 3% of all patients admitted with acute pain abdomen.

On the basis of severity of pancreatitis by Modified CTSI score, patients were categorized into 3 grades-mild, moderate and severe acute pancreatitis. In our study, maximum number of patients 299 out of 650 (46%) had mild MCTSI, 182 out of 650(28%) had moderate MCTSI and 169 out of 650 (26%) patients had severe MCTSI. Banday et al[14] and Lokwani M et al[15]observed that modified CTSI is a simpler and more accurate scoring tool as compared to CTSI and has a stronger statistical correlation with length of stay, development of infection, organ failure and mortality. Banday et al[14]conducted a hospital based prospective correlative study done in Postgraduate Department of Radiodiagnosis and Imaging, Government Medical College, Jammu, for a period of one year from November 2012 to October 2013 on patients of all age groups referred to the Department of Radio diagnosis and found that Modified CT Severity Index is a simpler scoring tool and more accurate than the Balthazar CT Severity Index. Lokwani Met al[15],conducted a study to study the correlation of modified computed tomography severity index (MCTSI) with patient's morbidity and comparison of the CTSI with the MCTSI and to evaluate necrosis as a predictor of patient morbidity. Both indices (CTSI and MCTSI) showed association with the development of local complications and organ failure. MCTSI showed better sensitivity than CTSI and shows good specificity, positive, and negative predictive values as a predictor of local complications and organ failure. Necrosis showed an association with patient morbidity

(development of local complications) with high positive and negative predictive values (84.6% and 81.4%, respectively) and sensitivity of 68.7 % and specificity of 91.6%.

MCTSI is more accurate index to predict the development of local complications or organ failure. Necrosis as an independent index is a useful marker for predicting the development of local complications.

The presence of higher number of patients of moderate and severe pancreatitis in our study is attributed to the fact that our hospital being a tertiary centre, very sick patients having severe pancreatitis were referred to us. Secondly higher incidence of severe pancreatitis and moderate pancreatitis can be explained by the high prevalence of biliary pancreatitis in this part of country, as gallstone leads to severe pancreatitis.

When outcome was compared on the basis of BISAP score it was observed that 56 (88.9%) patients with BISAP score 4 expired, 29 (33.3%) patients with BISAP score 3 expired.The trend for increasing mortality with increasing BISAP score was statistically significant ($P<0.001$.Singh VK et al[8], BISAP score was evaluated among 397 consecutive cases of acute pancreatitis admitted to our institution between June 2005 and December 2007. BISAP scores were calculated on all cases using data within 24 h of presentation. Among 397 cases, there were 14 (3.5%) deaths. There was a statistically significant trend for increasing mortality ($P < 0.0001$) with increasing BISAP score. The area under the receiver operating curve for mortality by BISAP score in the prospective cohort was 0.82 (95 % confidence interval: 0.70, 0.95), which was similar to that of the previously published validation cohort. A BISAP score ≥ 3 was associated with an increased risk of developing organ failure (odds ratio =7.4, 95 % confidence interval: 2.8, 19.5), persistent organ failure (odds ratio = 12.7,95% confidence interval: 4.7, 33.9), and pancreatic necrosis (odds ratio = 3.8, 95% confidenceinterval: 1.8, 8.5).

A comparison of BISAP and modified CTSI in predicting the severity of acute pancreatitis was done in our study. 76.93% had BISAP score <3 and 74% patients had MCTSI score 0-4. 23.07% patients had BISAP score >3 and 26% patients had MCTSI 7-10. Both high BISAP score and high MCTSI are associated with high morbidity and mortality. The correlation was calculated using Pearson chi-square test and was found to be statistically insignificant with p value 0.221.Means that both the scores can be used to access the severity of acute pancreatitis during its initial course. Both BISAP and MCTSI scores had positive correlation with mortality and morbidity. In conclusion, although the study is limited by its small sample size, which makes it difficult to make any broad recommendations, it can be safely said that MCTSI can be a useful tool in predicting which patients are likely to develop severe disease early in the course of their illness and is similar to BISAP in this regard.PapachristonGIet al[16] there were 185 patients with AP (mean age 51.7, 51% males), of which 73% MCTSI contrast-enhanced CT scan. Forty patients developed organ failure and were classified as severe AP (SAP; 22%). Thirty-six developed pancreatic necrosis (19%), and 7 died (mortality 3.8%). The number of patients with a BISAP score of > or =3 was 26; Ranson's≥ 3 was 47, APACHE-II ≥ 8 was 66, and CTSI≥ 3 was 59.Of the seven patients that died, one had a BISAP score of 1, two had a score of 2, and four had a score of 3. AUCs for BISAP, Ranson's, APACHE-II, and CTSI in predicting SAP are 0.81 (confidence interval (CI) 0.74-0.87), 0.94 (CI 0.89-0.97), 0.78 (CI 0.71-0.84), and 0.84 (CI 0.76-0.89), respectively.They confirmed that the BISAP score is an accurate means for risk stratification in patients with AP. Its components are clinically relevant and easy to obtain. The prognostic accuracy of BISAP is similar to those of the other scoring systems. They conclude that simple scoring systems may have reached their maximal utility and novel models are needed to further improve predictive accuracy.

SUMMARY AND CONCLUSION

The aim was to study the correlation between BISAP Score and MCTSI in predicting the severity of acute pancreatitis . The present study enrolled 650 patients who were diagnosed as acute pancreatitis. BISAP Score was obtained at the time of presentation or within 24 hours of presentation and radiological based Modified CT Severity Index [MCTSI] was calculated to assess the severity, morbidity and mortality of acute pancreatitis. In this study, the most common aetiology being gallstone followed by idiopathic acute pancreatitis. BISAP Score < 2 predicted mild pancreatitis, Score > 3 had organ dysfunction and Score 4 had 100% mortality. The relation between MCTSI score and Organ dysfunction showed increased organic dysfunction and higher mortality with higher MCTSI Scores. BISAP score is an accurate means for risk stratification in patients with AP. Its components are clinically relevant and easy to obtain. The prognostic accuracy of BISAP is similar to those of the other scoring systems . It can be safely said that MCTSI can be a useful tool in predicting which patients are likely to develop severe disease early in the course of their illness and is similar to BISAP in this regard. Both BISAP and MCTSI scores had positive correlation with morbidity and mortality. Patients having higher BISAP score will have high MCTSI. Both scores can be used to access the severity of acute pancreatitis.

Mild, moderately severe AP and SAP constitutes 48.61%,24.61%and 26.76% of patients respectively. Both BISAP score and MCTSI were used to calculate the severity of AP.It was found that both these scores can be used to calculate the severity equally and the difference was statistically insignificant. No mortality was seen in mild AP,8.1% mortality was seen in moderately SAP and 41.4% mortality was seen in SAP. High mortality was seen in SAP because of persistent organ failure,SIRS and infected necrotizing pancreatitis.In case of SAP mortality was 50% in ESAP followed by 32.1% in late organ failure and IPN.

Year wise there is increasing trend of AP from 2015(6%) to 2019(8%). High BMI, increased waist circumference, high blood sugar, high hematocrit and high CRP are associated with worsening of AP.

In Kashmir valley there has been increasing number of cases of acute pancreatitis in recent years. Acute pancreatitis is one of the major cause of admission in gastroenterology ward. This, in contrast that few years back, when OCH, biliary ascariasis, UGI bleed were leading causes of admission.

The increasing incidence of acute pancreatitis in recent years is thought to be due to change in life style and food habits of patients. The sedentary life style has increased the incidence of obesity, dyslipidemia, diabetes and gall stones, all presumed to be risk factors for acute pancreatitis.

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