ORIGINAL RESEARCH

Assessment of cases of peptic ulcer related upper gastrointestinal bleed

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ABSTRACT

Background: Peptic ulcer disease (PUD) is a serious worldwide public health issue that has a big influence on hospitalization costs, morbidity, and death rates. The present study was conducted to assess cases of peptic ulcer related upper gastrointestinal bleed.**Materials & Methods:**70 patients of peptic ulcer bleed of both genders were recruited. The date of admission, clinical characteristics, etc., were noted. Within twenty-four hours of hospitalization, a UGI endoscopy was conducted. **Results:** Out of 70 patients, males were 42 and females were 28. Clinical features were Malena in 12, Hematemesis in 26, and Melena + Hematemesis in 32 cases. Endoscopy findings were gastric ulcer in 31, duodenal ulcer in 24, gastroduodenal ulcers in 10 and erosions in 5 cases. The difference was significant (P< 0.05).**Conclusion:** It was found thatmost common clinical features were Melena and Hematemesis. The most common cause was gastric ulcer.

Key words: Hematemesis, Malena, Peptic ulcer disease

INTRODUCTION

Peptic ulcer disease (PUD) is a serious worldwide public health issue that has a big influence on hospitalization costs, morbidity, and death rates.[1] An estimated six million people in the US are thought to be affected by PUD annually, which explains a substantial amount of the rise in healthcare expenses.[2] Because of improvements in UGI bleeding care and a population with rising life expectancy and related comorbidities, the total fatality rate from upper gastrointestinal bleeding has stayed relatively stable over the past few decades at around 10%.[3] In the epidemiology of numerous diseases, including gastrointestinal disorders, seasonality is a well-known phenomena, with certain months showing higher rates than others. Gastrointestinal infections, air pollution, dietary practices, genetic predispositions, simultaneous variations in humidity, vascular problems, and stressful.[4]

Although there is some seasonal variation, gastrointestinal (GI) disorders have been reported to occur throughout the year[5]. Studies on the seasonality of gastrointestinal disorders have focused on conditions including acute pancreatitis (AP), peptic ulcer bleeding (PUB), and peptic ulcers (PU) for which urgent or critical care is essential.[6] Predicting PUB's incidence is crucial to ensure that backup staff are available during peak season with the capacity to deliver the optimum care, as PUB usually necessitates an urgent endoscopic operation for bleeding control.[7] Predicting the demand for hospital resources is essential for improving patient care because the majority of AP patients are admitted for intensive care with rigorous hydration and nutritional assistance.[8]The present study was conducted to assess cases ofpeptic ulcer related upper gastrointestinal bleed.

MATERIALS & METHODS

The present consisted of 70 patients of peptic ulcer bleed of both genders. All gave their written consent to participate in the study.

Data such as name, age, gender etc. was recorded. The date of admission, clinical characteristics, etc., were noted. Within twenty-four hours of hospitalization, a UGI endoscopy was conducted. Following topical xylocaine spray or jelly, the patient was placed in the left lateral position and EGD was conducted perorally in a standard manner. In the majority of the procedures, intravenous midazolam was used. In rare instances, intravenous propofol was administered. The results of the endoscopy were documented. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Total- 70		
Gender	**Male**	**Female**
Number	42	28

Table I shows that out of 70 patients, males were 42 and females were 28.

Table II Assessment of parameters

Parameters	Variables	Number	P value
Clinical features	Malena	12	0.04
	Hematemesis	26	
	Melena + Hematemesis	32	
Endoscopy findings	Gastric ulcer	31	0.02
	Duodenal ulcer	24	
	Gastroduodenal ulcers	10	
	Erosions	5	

Table II, shows that clinical features were Malena in 12, Hematemesis in 26, and Melena + Hematemesis in 32 cases. Endoscopy findings were gastric ulcer in 31, duodenal ulcer in 24, gastroduodenalulcersin 10 and erosions in 5 cases. The difference was significant (P< 0.05).

DISCUSSION

A peptic ulcer is a defect in the gastric or duodenal wall that extends through the muscularis mucosa (the lowermost limit of the mucosa) into the deeper layers of the wall (submucosa or the muscularispropria).[9,10] Signs and symptoms of PUD include dyspepsia, GI bleeding, anemia, and gastric outlet obstruction. Dyspepsia is a nonspecific term denoting upper abdominal discomfort that is thought to arise from the upper GI tract.[11,12] Dyspepsia is a common symptom, affecting 10% to 40% of the general population. Although the majority of patients with dyspeptic symptoms have functional dyspepsia for which no organic etiology can be identified, PUD is found in 5% to 15% of dyspeptic patients.[13,14]

We found that out of 70 patients, males were 42 and females were 28.Liu et al[15]discussed the relationship between the onset of peptic ulcers (PU) and meteorological factors (MF).In reviewing records from 17 hospitals in the city of Nanning from 1992 to 1997, we found 24, 252 cases of PU in 104, 121 samples of gastroscopic examinations. They calculated the detectable rate of PU (DRPU) during each season every five days (FD) and made a correlated analysis with the seasonal MF during the same period in Nanning. Finally, we made a multiple regressive correlated analysis of DRPU and the 5MF for the same period of the year. A forecast model based on the MF of the previous FD was established. The real value and the forecast value was being tested and verified.From 1992 to 1997, the DRPU is: winter and spring > summer and autumn (P < 0.005). There is a close relationship between the DRPU and the average temperature (AT), the average highest temperature (AHT), the average lowest temperature (ALT), average air pressure (AAP) and the average dew point temperature (ADT) of the five days of the same period of the year (the correlated coefficients are -0.5348, -05167, -0.5384, 0.4579 and -0.4936, respectively), with P < 0.01. The AT, AHT, ALT, AAP and ADT of the previous FD are of great value in forecasting the onset of PU, with its real value and forecast value corresponding to 66.6%.

We found that clinical features were Malena in 12, Hematemesis in 26, and Melena + Hematemesis in 32 cases. Endoscopy findings were gastric ulcer in 31, duodenal ulcer in 24, gastroduodenal ulcers in 10 and erosions in 5 cases. Bleau BL et al[16]determined whether removal of clot from an ulcer and endoscopic therapy reduces the frequency of recurrent bleeding.Patients with acute upper GI bleeding from peptic ulcers with adherent clots and no active bleeding were enrolled in a multicenter study. At each center patients were stratified for age, use of nonsteroidal anti-inflammatory drugs, and ulcer location, and were randomized to endoscopic or medical management. Endoscopic therapy consisted of injection of the base of the adherent clot with a solution of epinephrine and mechanical removal of the clot. The base of the ulcer and any stigmata of bleeding were then coagulated until cavitation and adequate coagulation were obtained. Patients in both groups received standard medical therapy for peptic ulcer. Fifty-six patients were enrolled. Rates of recurrent bleeding were 34.3% (12/35) in the medical treatment arm versus 4.8% (1/21) in the endoscopic treatment arm (p < 0.02).In patients with GI bleeding caused by gastric or duodenal ulcers with an adherent clot found on endoscopy, endoscopic therapy with injection of the base of the clot, clot removal, and heat probe coagulation significantly reduces the rate of recurrent bleeding compared with medical therapy alone.

The limitation of the study is small sample size.

CONCLUSION

Authors found that most common clinical features were Melena and Hematemesis. The most common cause was gastric ulcer.

REFERENCES

1. FichA,GoldinE,ZimmermanJ,RachmilewitzD.Seasonal variations in the frequency of endoscopically diagnosed duodenal ulcer in Israel.JClin Gastroenterol.1988;10:380– 382.
2. Linn HW.An analysis of peptic ulcer in South Australia,based on a study of 1,027 case reports.Med J Aust. 1946; 2:649– 658.
3. Breen FJ, Grace WJ.Bleeding peptic ulcer: seasonal variation. Am J Dig Dis. 1962; 7:727–732.
4. Christensen A, Hansen CP, Thagaard C, Lanng C: Seasonal periodicity of perforated gastric ulcer. Dan Med Bull. 1988; 35:281–282.
5. Patel NJ, Nalluri N, Deshmukh A, Pant S, Shah N, Badheka AO, Asti D, Lafferty JC, Schwartz C.Seasonal trends of heart failure hospitalizations in the United States: a national perspective from 2000 to 2011. Int J Cardiol.2014; 173:562– 563.
6. Cherian JV, Somasundaram A, Ramalingam S, Jayanthi V. Peptic ulcer disease in India - A 16 years trend analysis. Trop Gastroenterol 2010; 31:260-5.
7. Francis K.L. Chan, James Y.W. Lau, Peptic ulcer disease; Sleisenger and Fordtran's gastrointestinal and liver disease, pathophysiology, diagnosis, management: Eleventh edition 2021.
8. Sonnenberg A, Wasserman IH, Jacobsen SJ.Monthly variation of hospital admission and mortality of peptic ulcer disease: A reappraisal of ulcer periodicity. Gastroenterology.1992, 103: 1192–1198.
9. Fares A.Global patterns of seasonal variation in gastrointestinal diseases. J Postgrad Med. 2013; 59:203– 207.
10. Yen FS, Wu JC, Wang LM, Kuo BI, Hu SC, Lee SD: Seasonal variation in the incidence of peptic ulcer and esophagealvariceal bleeding in Taiwan. Zhonghua Yi XueZaZhi (Taipei). 1996; 57:22–27.
11. Mizell S. Seasonal variation in gastric hydrochloric acid production in Ranapipiens. Am J Physiol. 1955; 180:650.
12. Markoc I. Seasonal variations of secretions and acidity of gastric juice in healthy subjects and in dogs. ByullEkspBiol Med 1959; 47: 33.
13. Hui WM, Lam SK. Monthly variation in frequency of active duodenal ulcer and maximal acid output. J GastroenterolHepatol. 1988; 3:457–63.
14. Xirasagar S, Lin HC, Chen CS: Role of meteorological factors in duodenal ulcer seasonality: a nation-wide, population-based study. J Gen Intern Med. 2007; 22:1439–46.
15. Liu D, Gao A, Tang G, Yang W: Study of the relationship between the onset of peptic ulcers and meteorological factors. Chin Med J (Engl). 2003; 116:1940-42.
16. Bleau BL, Gostout CJ, Sherman KE, et al. Recurrent bleeding from peptic ulcer associated with adherent clot: a randomized study comparing endoscopic treatment with medical therapy. GastrointestEndosc2002;56:1-6.