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Endoscopic findings of acute upper gastrointestinal bleeding in a tertiary care hospital

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ABSTRACT

Introductions: Acute upper gastrointestinal (UGI) bleeding is common emergency. Prompt endoscopic diagnosis has an important role in overall management of patients. This study analyses the findings of endoscopic findings of UGI bleeding in a tertiary care teaching hospital.

Methods: This was a cross sectional study of patients with haematemesis, melaena or both who had UGI endoscopy at Patan hospital during Nov 2009 to Jan 2010. Patient demographics, site and nature of lesions and risk factors for bleeding were analysed.

Results: There were 301 patients, male 203 (67%) female 98 (33%), age 15 to 92 years. Esophageal lesions were seen in 136 (45%), gastric 102 (34%), duodenal 46 (15%) and unidentified in 17 (7%). The lesions detected were esophageal varices in 120 (40%), duodenal ulcer in 32 (11%), mallory-weiss tear in 26 (9%), gastric ulcer in 18 (6%), gastric carcinoma in 17 (6%) and congestive pangastropathy in 16 (5%). History of drugs intake like aspirin, nonsteroidal anti-inflammatory drugs, warfarin and bisphosphonates was present in 32 (11%) patients.

Conclusions: Endoscopy was diagnostic in majority (94% of 301) UGI bleeding patients. Esophageal variceal bleeding was the common cause followed by peptic ulcer.

Keywords: endoscopy, gastroduodenoscopy, upper gastrointestinal, UGI bleeding

INTRODUCTIONS

For early diagnosis and definitive management of acute UGI bleeding with haematemesis and/or melaena, endoscopy should be performed as soon as patient is haemodynamically stable with proper monitoring and supportive treatment.[1] Studies have reported peptic ulcer disease being the commonest cause of UGI bleeding and duodenal ulcer bleed more common than Gastric ulcer.[2-9] More than 100,000 are estimated to bleed from peptic ulcer in USA each year.[10] The use of drugs like aspirin and nonsteroidal anti-inflammatory drugs (NSAIDs) are important risk factors of bleeding in peptic ulcer disease.[11-14] The aim of this study was to detect causes of UGI bleeding at endoscopy so that it could guide in its further management.

METHODS

This was a cross sectional study conducted from Nov 2009 to Jan 2010 at Patan hospital. All patients with features of UGI bleeding like hematemesis and or melaena who underwent gastroduodenoscopy at endoscopy unit of Patan hospital were included.

The UGI endoscopy was performed after resuscitation, adequate fasting of 12 hours or after nasogastric lavage was clear in case urgency. Endoscopy was performed under 4% xylocaine viscous spray. Therapeutic endoscopic procedures were performed as necessary. Informed written consent was obtained from patient or family members as per hospital policy.

Study variables included, patient age, sex, presenting symptoms, cause of UGI bleed and risk factors. Descriptive analysis was performed.

RESULTS

There were 301 patients, male 203 (67%), female 98 (33%) had endoscopy for UGI bleed during one-year study period. The age ranged from 15 to 92 years, with maximum number of patients in age group of 30-40 years (Table 1).

Endoscopic revealed esophageal lesions in 136 (45%) and gastric in 102(40%) and duodenal in 46(15%). No lesions were detected in 19(7%) cases of UGI bleeding (Table 2).

Table 1. Age distribution of patients with acute UGI bleeding (n=301)

Age (years)	Number Of Patients	Percentage
15-20	14	4.5
21-30	38	12.5
31-40	74	25.0
41-50	86	29.0
51-60	42	14.0
61-70	33	11.0
71-80	8	2.5
81-90	4	1.0
91-100	2	0.5
Total	**301**	**100**

Table 2. Endoscopic diagnosis in patients with UGI bleeding (n=301)

Type of lesions	No of Patients	Percentage
Esophageal lesions		
Esophageal varices	120	40
Esophageal rosions/ulcer	7	2
Esophageal cancer	9	3
Total	136	45
Gastric lesions		
Mallory weiss	26	9
Gastric ulcer	18	6
Gastric cancer	17	5.5
Gastropathy	16	5
Erosive gastritis	11	3.5
Fundal varices	6	2
Deulafoys lesion	4	1.5
Polyp	2	0.5
GAVE	2	0.5
Total	102	33
Duodenal lesions		
Duodenal ulcer	32	11
Duodenal Erosions	11	3.5
Periampullary Growth	3	1
Total	46	16
Unidentified	19	7
Total	**301**	**100**

Presenting symptoms were upper abdominal pain in 199 (66%) followed by haematemesis and melaena in 154 (51%), (Figure 1).

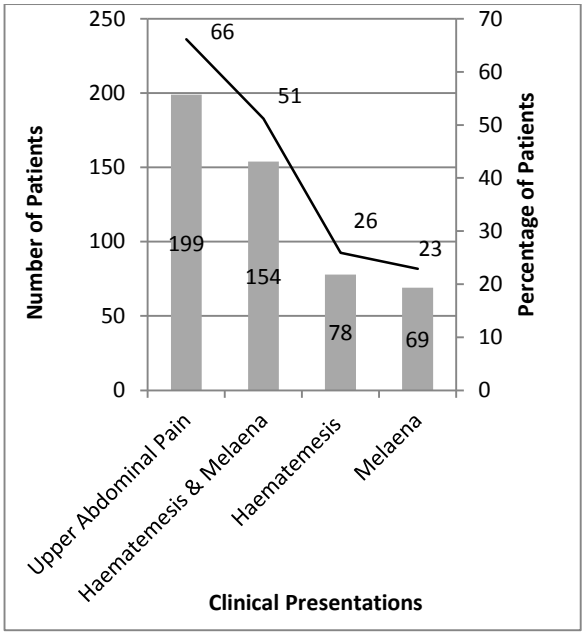

Figure 2. Presenting symptoms in patients with acute UGI bleeding (n=301)

Smoking, alcohol and drugs were possible predisposing factors of UGI bleeding in this series (Figure 2). There was no procedure related complications.

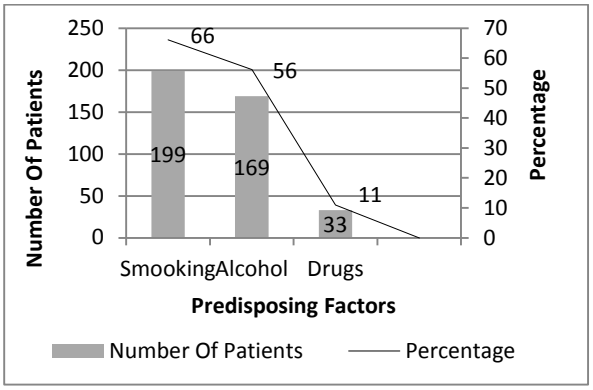

Figure 2. Predisposing factors related to UGI bleeding (n=301)

DISCUSSIONS

In this study of acute UGI bleeding, male (67% of 301) were twice more common than female (33%). Age group 30-50 years was common, comprising of 54%. Age less than 20 years (4.5%) and more than 70 years (4%) were less affected (Table 1) as described in other studies showing 21-40 years as common.[17]

In this series, 199 (66%) patients presented with upper abdominal pain or discomfort, 154 (51%) cases with both haematemesis and melaena, 78 (26%) with haematemesis alone and 69 (23%) with melaena alone which is consistent with other studies.[18]

The causes of acute UGI bleeding was identified in 274 (94% of 301) during UGI endoscopy. Seventeen (7%) cases did not reveal any positive finding which could be due to healed superficial lesions, swallowed haemoptysis or lesion present distally. Similar findings have been reported, showing peptic ulcer as commonest cause of UGI bleeding accounting 50% and among peptic ulcer bleeding, duodenal ulcer twice as common as gastric ulcer.[2-9,18]

Endoscopic findings revealed total esophageal lesions in 136 (45%) cases; most commonly varices in 120 (40%), followed by cancer in 9 (3%) and erosions in 7 (2%). In this series, esophageal variceal bleeding was commonest cause of acute UGI bleeding, commonly with history of alcohol consumption. The high number of such patients in our series could be because we get patients referred from other health facilities for further management. Mallory-weiss tear was also common, probably due to use of alcohol causing vomiting and retching.

Among the possible predisposing factors UGI bleeding, cigarette smoking was found in 199 (66%), followed by NSAID and alcohol (Figure 3). Similar findings have been reported, cigarette smoking in 49%, NSAID in 16% and alcohol consumption in 3% of cases. Alcohol consumption varies due to social and cultural restriction.[19-20]

Some of the limitations of this retrospective reviews are we were not able to look in to details of possible failure rate of UGI endoscopy and outcome of therapeutic procedures.

CONCLUSIONS

Emergency UGI endoscopy is safe and effective in diagnosis of UGI bleeding. Esophageal variceal bleeding was common followed by duodenal ulcer. Mallory-weiss tear, congestive pangasatropathy and gastric cancer were less common in this series.

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REFERENCES

1. Cotton PB, Rosenberg MT, Waldrom RP, AzonAT. Early endoscopy of oesophagus, stomach and duodenal bulb in patients with haematemesis and melaena. BMJ. 1973;2:505-9.
2. Silverstein FE, Gilbert DA, Tedesco FJ, Buenger NK, Persing J. The national ASGE survey of upper gastrointestinal bleeding. Clinical prognostic factors. Gastrointest Endos. 1981;27:80-93.
3. Laine L. Upper gastrointestinal haemorrhage. West J med. 1991;27-35.
4. Schiller KF, Truelove SC,William DG.Haematemesis and melaena with special reference to factors influencing the outcome. BMJ. 1970;2:7.
5. Allan R, Dykes RA. A study of the factors influencing mortality from gastrointestinal haemorrhage.BMJ. 1976;45:531-5.
6. Himal HS,Watson WW,Miler L, Maclean LD.Management of UGIhaemorrhage. A multiparametric computer analysis. Ann sug. 1976;179:44-8.
7. Hunt PS, Hansky J, Korman MG. Mortality in patients with haematemesis and melaena. A prospective study. Br J Med .1975;1:1236-8.
8. Himal HS,Perrault C, Mazabi R. Upper gastrointestinal haemorrhage. Aggressive management decrease mortality. Surgery. 1978;84:448.
9. Halmagyi AE. A critical review of patients with upper gastrointestinal haemorrhage. Surg Gynaecol Obstet. 1970;130:419.
10. NIH Consensus conference.Therapeutic endoscopy and bleeding peptic ulcer. JAMA.1989;262:369.
11. Somerville K, Faulkner G, Langman M. Nonsteroidal anti-inflammatory drugsand bleeding peptic ulcer. Lancet. 1986;462-4.
12. Carson JL, Storm BL, Sopper KA, West SL, Morse ML. The association of NSAID with UGI bleeding. Arch Intern Med. 1987;147:85-8.
13. Laporte JR, Carne X, Vidal X, Moreno V, Juan J. Upper gastrointestinal bleeding in relation to previous use of analgesics and NSAIDs. Lancet. 1991;337:85-9.
14. Holvoet J, Terriere L, Vanhee W, Verbist L,Fierens E, Hautekeete ML. Relation of UGI bleeding to NSAID and aspirin: A case control study. GUT. 1991;32:730-4.
15. Cotton PB. Fiberoptic endoscopy and barium- results and implications. BMJ. 1973;2:161-6.
16. Gilbert DA, Seilverstein FE.Endoscopy in gastrointestinal bleeding. Gastroenterologic endoscopy. Sivac MB. ed WB Saunders, Philadelphia. 1987.
17. Rahman H, Ahmed DS, Ahmed F, Rahman M, Roy PK, Saha SK etal. Acute upper gastrointestinal bleeding an endoscopic study. Bangladesh journal of medicine. 2001jan;12:60-2.
18. Wara P, Stodkilde H. Bleeding pattern before admission as guideline for emergency endoscopy. Scand J Gastroenterol. 1985;20:72-4.
19. Rahman M, Roy PK, Akhter MA, Saida L, Rahman MT, Hasan M. UGI endoscopy in acute upper gastrointestinal tract haemorrhage. Bangladesh J Medicine. 1995;6:62-6.
20. Griffin MR, Piper JM, Daugherty JR, Snowden M, Ray WA. Nonsteroidal anti-inflammatory drugs use and increase risk for peptic ulcer disease in elderly persons. Ann Intern Med. 1991;114:257-63.