

EVALUATION OF THE GASTRIC ULCER PATIENTS IN BLACKSEA REGION OF TURKEY

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SUMMARY: One hundred and eighty seven patients with endoscopically diagnosed gastric ulcer were evaluated. Mean age of the patients was 50.5 years and the male female ratio was 2.5: 1. Duration of the symptoms was approximately 5 months. Smoking was (18%), use of aspirin and anti-inflammatory agents were 14%. Bleeding of ulcer was present in 19% of the patients. In 50% of the patients, the cause of hemorrhage was due to use of aspirin or anti-inflammatory agents.

In 166 patient, the ulcers were situated in the antrum and in 19 patients, in the proximal. Nearly half of the antral ulcers were located in the prepyloric antrum (44%). The size of the ulcers was less than 1 cm in 137 patient (73%) and more than 1 cm in 50 patients (27%).

The multiple small sized ulcer (0.5 cm) was found in 39 patients (20%). These ulcers were often located in the prepyloric antrum and had occurred especially in patients with combined duodenal ulcer or the intake of aspirin. The association with duodenal ulcer was present in 18% of the patients. The majority of the combined ulcer was located in the prepyloric antrum and they were frequently less than 0.5 in size.

Index words: Gastric ulcer, clinical characteristics, endoscopical findings.

INTRODUCTION

The incidence of gastric ulcer in our country is not known. It is an important gastric disease. Because it occurs frequently in middle-aged people, it has a relatively high rate of complication and distinguishing it from malignant ulcer is difficult (1,2,8,21,23).

The purpose of this study is to present the clinical and endoscopic characteristics of gastric ulcer patients treated at our section, in Blacksea region of Turkiye.

MATERIALS AND METHODS

The study covers 186 patients which had been diagnosed between January 1984-May 1988. All diagnoses were based on endoscopic examination. Except small sized ulcers, gastric biopsy was also performed. The cases with suspected gastric carcinoma were not included into the study. Prior to physical examination a detailed history of main gastric symptoms, concurrent significant dis-

ease, intake of aspirin and anti-inflammatory agents and gastrointestinal hemorrhage were taken from the patients. The location and size of ulcers were evaluated by endoscopic examination. The ulcers were classified into six localization as follows, gastric angle,

Table 1: Age and sex incidence of the gastric ulcer patients.

Age (years)	Men		Women		Overall	
	n	%	n	%	n	%
20	1	0.5	-	-	1	0.5
21-30	7	4	3	2	10	5
31-40	29	15	11	6	40	21
41-50	32	17	13	7	45	24
51-60	36	19	14	7	40	27
61-70	15	8	5	3	20	11
71-80	15	8	5	3	20	11
81-100	-	-	1	0.5	1	0.5
Overall	135	72	52	28	187	12.5

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prepyloric antrum, antrum, midbody, fundus and cardia. The characteristics of ulcer size, ulcer number and association with duodenal ulcer were also studied.

Table 2: Principal symptoms of the gastric ulcer patients.

	No	Patients %
1. Epigastric pain	170	90
2. Pain relieved by food or antasit	110	59
3. Pain at night	43	23
4. Dyspepsia	97	58
5. Nausea and vomiting	85	46
6. Weight loss	76	41
7. Hematemesis and/or melana	36	19

RESULTS

There were 131 men and 54 women in the study. The ratio of men to women was 2.5:1. The mean age was 50±14 years in men, and 52 ±15 years in women. The age and sex incidence is shown in Table 1.

One hundred and seventy patients had gastrointestinal symptoms. The average of the duration of symptoms was 5 months (range, 1 day-10 years). The incidence of principal symptoms is shown in Table 2.

A family history of peptic ulcer was present in 11 % of the patients. There was not any significant concurrent disease in the patients.

Table 3: Localisation and size of the gastric ulcers.

Size of ulcer cm	Prepy-Mid													
	Angle		Antrum		loric		body		Fundus		Gardia		Overall	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
3	4	80	1	20	-	-	-	-	-	-	-	-	5	3
2-3	8	53	3	20	2	13	1	7	1	7	-	-	15	8
1-2	12	40	8	27	6	20	-	-	1	3	3	1	30	16
0.5-1	23	38	15	22	26	98	1	2	2	3	1	2	68	36
0.5	5	7	5	7	50	72	2	3	6	9	1	1	69	37
Overall	52	28	32	17	82	43	4	3	10	5	5	3	187	100

Cigarette smoking was 18% in the patients. A history of heavy alcohol use was not present. The use of aspirin was found in 12% of the cases. The use of anti-inflammatory agents were 1 %.

A history of hemorrhage was present in 19 % of the patients. In 50% of the hemorrhage, the cause was use of aspirin or antiinflammatory agents.

Eighty nine percent of the ulcers were located in the antrum. The location of the antral ulcers is as follows; fifty is found in prepyloric antrum and thirty percent on the gastric angle. Eleven percent of all ulcers were located in the proximal, and especially in fundus. Also the proximal ulcers were seen more frequently in elderly patients. The location and size of the ulcers are shown in Table 3.

The size of ulcers were less than 1 cm in 73 % of patients and larger than 1 cm in 27% of patients. Sixty percent of the large ulcers (>2 cm size) were located on

the gastric angle. Seventy three of the small ulcers (<0.5 cm size) were in the prepyloric antrum. Also most of the multiple small ulcers were found in the same region. Thirty percent of single or multiple small sized ulcers were caused by the use of aspirin or anti-inflammatory agents.

The size of the ulcers in the bleeding cases were less than 1 cm in 58% and larger than 1 cm in 42%.

More than one ulcer in the same or different location was found in aproximately 10% of the cases. Forty percent of these ulcers were located on the angle. The combined gastric and duodenal ulcers were percent in 18% of the patients. The combined gastric ulcers were usually in the prepyloric antrum and the majority of these were less than 0.5 cm in size.

DISCUSSION

The ratio of men to women in our patients was 2.5:1. Though the propenderance of men in gastric ulcer has been reported, the sex ratio show marked differences from country to country. The family history incidence was similar to the rewieved literature. The funding of peak age incidence which was between 40-60 years for both sexes correlates well with previous reports (1, 10-15, 26).

The 18% of smoking incidence was lower than in the other studies. The incidence of aspirin intake was 18% in our study whereas prviously presented studies reported 30% (2,3,7,9,13,16,20,18).

The incidence of hemorrhage in the gastric ulcer patients was more frequent (19%) than in those of the previous reports (12 %). The cause of the hemorrhage was aspirin intake in approximately 50% of the cases (12,18, 19).

The finding that the majority of the ulcers were located in the antrum was also confirmed. But the predominancy of angle location in the antral ulcers was not observed in our study. However, after excluding the small sized ulcers,

Table 4: The incidence of combined lesions in each localisation.

Combined lesions	Angle		Antrum		Prepiloric		Mid body		Fundus		Carida	
	n	%	n	%	n	%	n	%	n	%	n	%
Combined with duodenal ulcer n=35	5	17	4	11	24	69	-	-	1	3	-	-
More than one ulcer in the same anatomic region n=12	6	50	4	33	2	17	-	-	-	-	-	-
More than one ulcer in the different anatomic region n=9	2	22	3	33	2	22	-	-	2	22	-	-

the frequency of the angle ulcers were found to be similar to those in the previous reports. The tendency of proximal location in the elderly patients were also confirmed (5,13,25,27,28).

The frequency of the large ulcers were less than the others series. The large ulcers were found in all locations. On the other hand the tendency of prepyloric location in small sized ulcers confirmed the previous studies. We have found that the small sized ulcers in the prepyloric antrum is common among aspirin taking patients. This result was also reported in other studies (4).

The incidence of multiple gastric ulcer located in the same or different anatomic region was similar to those of the previous reports (4,22,25).

The coexistence of gastric and duodenal ulcers was present in 18% of our study. This incidence was lower than the previous studies. The gastric ulcer combined with duodenal ulcer were commonly located in prepyloric antrum. The type of the majority of these ulcers were single or multiple (4,5,22,25).

In conclusion the majority of the clinical and endoscopic characteristics of our patients with gastric ulcer were similar to those of the reported series.

REFERENCES

1. Bonnevie : *The incidence of gastric ulcer in copen hagen county. Gastroenterology* 10:385-93, 1975.
2. Bayd EJS, Wormsley KG: *Etiology and pathogenesis of peptic ulcer. In Bockus Gastroenterology. Philadelphia. WB Saunders Company, 1013, 1975.*
3. Bennet JR: *Smoking and the gastrointestinal tract Gut* 13:658-6, 1972.
4. Blackstone MO: *Benign gastric ulcers. In Endoscopic Interpretation. New York, Revan press, 121, 1984.*
5. Cameron AJ: *Aspirin and gastric ulcer. Mayo Clin proc* 50:565-70, 1975.
6. Caruso I, Bianchi-Porro G: *Gastroscopic evaluation of antiinflammatory agents. Br Med J* 1:75-78, 1980.
7. Domschke S, Domschke W: *Gastrointestinal damage to drugs, alcohol and smoking Cilinics in Gastroenterology* 13(2):405-36, May 1984.
8. Elashoff JD, Grossman MI: *Trends in hospital admissions and death rates for peptic ulcer in the united States from 1970 to 1978. Gastroenterology.* 78:280-5, 1980.
9. Friedman GD, Siegelau AB, Seltzer CC: *Cigarettes, alcohol, caffee and peptic ulcer. N Eng J Med* 290:469-73, 1974.
10. Gelfand DW, Dale WJ, Ot DJ: *The location and size of gastric ulcers: Radiologic and endoscopic evaluation. IJR* 143:755-58, 1984.
11. Gillies MA, Skyr A: *Gastric and duodenal ulcer, the association between aspirin ingestion, smoking and family history of ulcer. Med J Auust August 9, 280-85, 1969.*
12. Gott JR, Shapiro D, Kely KC: *Gastric ulcer N Eng J Med* 250 (12):499-504, 1954.
13. Jolobe OMP, Montgomery RD: *Changing clinical pattern of gastric ulcer: Are anti-inflammatory drugs involved Digestion* 29:164-70, 1970.
14. Kurata JH, Hoibe BM: *Epidemiology of peptic ulcer disease. Clinics in Gastroenterology* 13(2):289-307, May 1984.
15. Langman MJS, Cooke AR: *Gastric and duodenal ulcer and their associated diseases. Lancet* March 27, 680-83, 1976.
16. Levy M: *Aspirin use in patients with major upper gastrointestinal bleeding and peptic ulcer disease. N Eng J Med* 290:1158-62, 1974.
17. LA Bory SJ, Misiewicz JJ, Edwards J, Smith PM, Haggie SJ, Libman L, Sarnar M, Wyllie JH, Croker J, Cotton P: *Controlled trial of cimetidine in upper gastrointestinal haemorrhage. Gut* 20:892-95, 1979.
18. Pelot D, Hollander D: *Complications of peptic ulcer disease. In Bockus Gastroenterology. Philadelphia, WB Saunders Company, 1155, 1985.*
19. Read kAE: *Gastrointestinal bleeding. Postgraduate Med J* 60:760-66, 1984.
20. Rees WDW, Turnberg LA: *Reappraisal of the effects of aspirin on the stomach. Lancet,* 2:410-3, 1980.
21. Richardson CT: *Gastric ulcer. In gastrointestinal disease. Philadelphia, WB Saunders Company p 672, 1983.*
22. Roth JLA, Stein GN, Morrisey JF, Stein EJ: *Diagnosis of petic ulcer. In Bockus Gastroenterology. Philadelphia WB Saunders Company, 1060, 1985.*
23. Sanders R: *Incidence of perforated duodenal and gastric ulcer in Oxford. Gut* 8:58-63, 1976.
24. Silviso GR, Ivey KJ, Butt JH, Lochard OD, Holt SD, Sisk C, Baskin WN, Machercher PA, Hewett J: *Incidence of gastric lesions in patients with rheumatic disease on chronic aspirin therapy. Ann Intern Med* 91:517-70, 1979.
25. Ström M, Bodemar G, Gotthard R, Walan A: *Duodenal prepyloric, and combined duodenal propyloric ulcer disease: Three distinct entities of juxtopyloric ulcer disease. Scand kJ Gastroenterology* 21:1105-10, 1986.
26. Swynnerton BF, Tanner NC: *Chronic gastric ulcer. Br Med J Oct. 17, 4841-47, 1953.*
27. Tatsuta M, Okuda S: *Location healing, and recurrence of gastric ulcers in relation to fundal gastritis. Gastroenterology* 69:897-902, 1975.
28. Thomas J, Greip M, Mc Instash J, Hunt J Mc Neil D, Piper DW: *The location of chronic gastric ulcer. Digestion* 20:79-84, 1980.