GASTRIC ULCER IN KARACHI

Pages with reference to book, From 207 To 210

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ABSTRACT

Of 138 endoscopically Of surgically confirmed cases of gastric ulcer, 102 (74%) were males and 36 (26%) females. Both sexes were affected most commonly in the 6th decade of life. Pain, vomiting and gastrointestinal bleeding were the major presenting symptoms, with a median duration of 6 months. Cigarette smoking was the most common (44%) addiction and 10% were on analgesics or non steroidal anti-inflammatory drugs (NSAID). Family history of ulcer was uncommon (2%) and no predilection for any blood group was noted. Among males 53% were skilled workers while 94% of females were housewives. Forty five percent patients were migrants from India and the rest belonged to different provinces of Pakistan. Presentation and behaviour of different sites of gastric ulcers though varied but the results were not significant. Healing rates with H2 receptor antagonists were 33% at 4 weeks and 78% at 8 weeks (JPMA 42: 207, 1992).

INTRODUCTION

Peptic ulcer is a common disease with variations in the frequency of occurrence from time to time and from place to place[1-3] in the west duodenal ulcer is a disease of active years of life while gastric ulcer occurs in elderly[4,5] which has been attributed to the use of NSAIDs[6]. The pattern of duodenal ulcer in our country is similar to that of developed countries except for minor differences[7]. However, the situation for gastric ulcer is not clear due to the lack of available information. This report describes the clinical features, course and management of gastric ulcer.

PATIENTS AND METHODS

Retrospective analysis of all cases attending the outpatient department of PMRC Research Centre, Jinnah Postgraduate Medical Centre, Karachi, between June, 1976 to December, 1990 was done. Only endoscopically or surgically proven cases of gastric ulcer were included in the analysis. All prepyloric ulcers, malignant ulcers (proven on histology) and those with inconclusive endoscopy reports or surgical notes were excluded. Site of the gastric ulcer was labelled endoscopically as fundus, lesser and greater curve side of the body and antrum in relation to the angulus. Patients with adequate treatment details and endoscopic follow-up were analysed to see the healing rates and an attempt was made to identify the favourable and unfavourable risk factors which could influence the healing and clinical course of the disease. The observations of different parameters were analysed by student ‘t’ test and individual variables were examined with chi square test.

RESULTS

One hundred and thirty eight endoscopically proven or surgically confirmed cases of gastric ulcer were studied. Of these 102 (74%) were males (age range 15-82 years; mean 46±16) and 36 (26%) females (age range 18-73 years; mean 48± 15) giving a male to female ratio of 2.8:1. When the age specific rates of Karachi population were projected against that of gastric ulcer patients, it showed that gastric ulcer was most frequent in the 6th decade of life in both sexes (Figure).

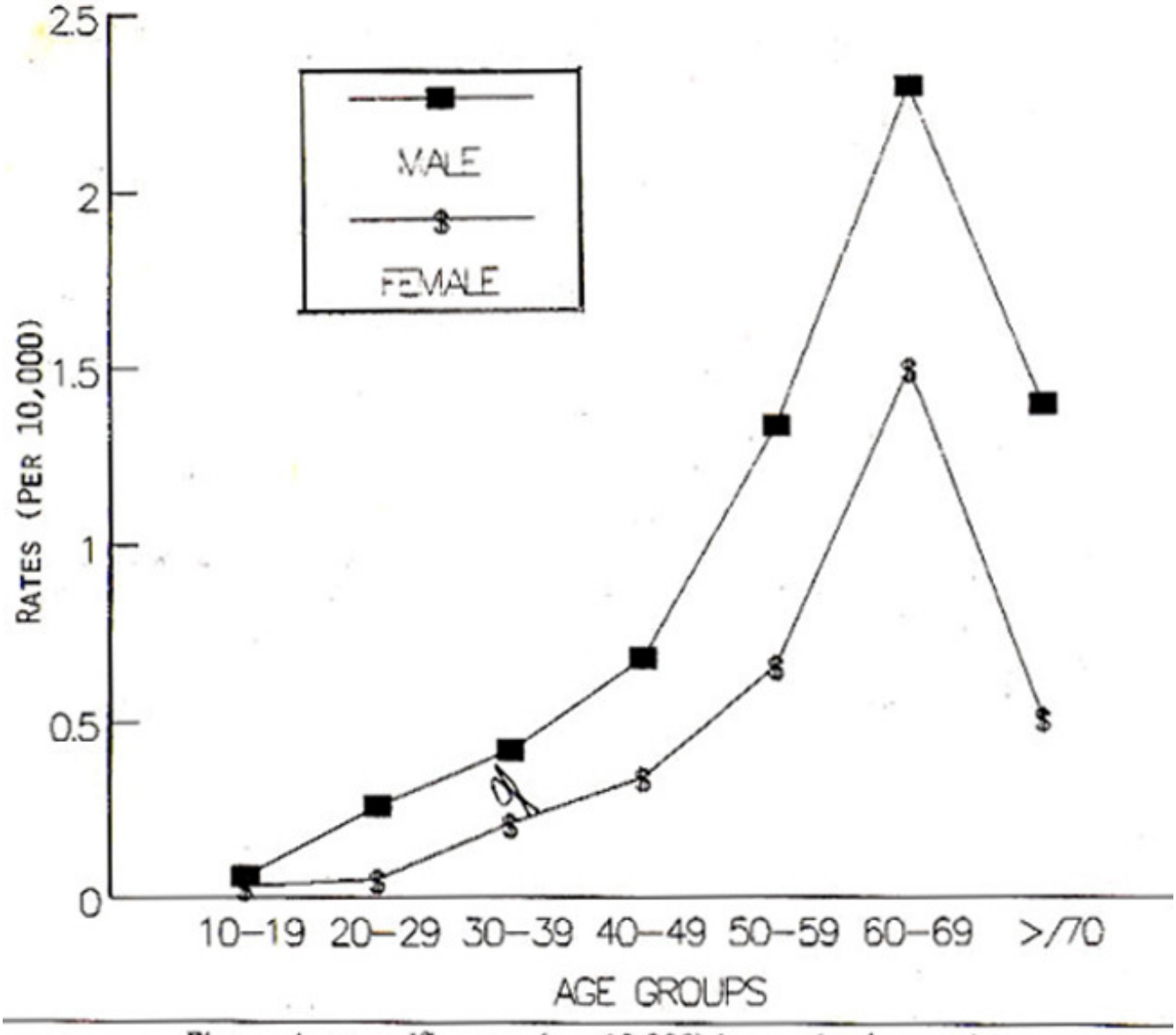

Figure. Age specific rates (per 10,000) in gastric ulcer patients.

Age adjusted rates showed that approximately 0.7/10,000 population of males and 0.3/10,000 population of females might be suffering from gastric ulcer in Karachi. Duration of symptoms varied from 1-288 months (median 6 months). Major presenting symptoms were abdominal pain 112 (81%), nausea and vomiting 84 (60%), gastrointestinal bleeding 67 (49%), anorexia 51 (37%), weight loss 44 (32%), epigastric burning 41 (30%) and flatulance 35 (25%) cases. Tenderness over the epigastrium and anaemia were encountered in 56 (41%) and 49 (36%) respectively. Twenty-six (19%) patients gave, past history of gastrointestinal bleeding. Two patients had simple closure for the perforated gastric ulcer and 2 had partial gasterectomy for bleeding prior to evaluation. Cigarette smoking was the most common addiction encountered especially in males. A total of 59 (43%) patients were smokers with an average consumption of 15± 11 cigarettes/day for 26 ± 15 days, 24 (17%) were tobacco chewers and 10(7%) were alcohol users, further break up given in Table I.

TABLE I. Addictions of the patients with gastric ulcer.

Addictions	Male	Female	Total		Control	
			No.	%	No.	%
Smoking	45	1	46	(33)	270	(26.7)
Tobacco chewing	9	5	14	(10)	76	(7.5)
Alcohol	5	-	5	(4)	-	-
Narcotics	1	1	2	(1.4)	6	(0.6)
Smoking and tobacco chewing	8	1	9	(7)	12	(1.2)
Smoking and alcohol	4	-	4	(3)	-	-
Tobacco chewing and alcohol	1	-	1	(0.7)	-	-
No addiction	29	28	57	(41)	647	(63.9)
Total	102	36	138		1011	

Fourteen (10%) cases were on analgesics or NSAIDs and none on steroid. Sixty-eight were either taking H2 receptor antagonists or antacids and 56 were not taking any medication when first seen. Only 3 (2%) patients had family history of ulcer disease. Blood group was known in 58 patients, of these 20 (34%) belonged to blood group B, 19(33%) to group 0, 14 (24%) to A and 5 (9%) to AB. Occupational groups amongst 102 men comprised of skilled workers, 54(53%) unskilled (16%), businessmen (13%), retired (8%) and students (4%). Amongst 36 females 34 (94%) werç house wives, one student and one labourer. Place of origin was known in 104 cases. Of these 47 (45%) were migrants from India, 6 from Bangladesh and 3 from other countries. The remaining were born in Pakistan, of these 21 (20%) belonged to Sindh, 16 (15%) to Punjab, 10 to North-West Frontier Province and 1 to Balochistan. Size of the ulcer was known in 75 cases; of them 38 (5 1%) had medium, 34 (45%) large and 3 (4%) had small ulcers. Site of gastric ulcer was known in 114 cases; of these 39 were on the lesser curve, 30 on greater curve side of the body, 37 had ulcers in the antrum and 8 in the fundus Comparison of the basic parameters of these patients according to the site of gastric ulcer (Table II)

TABLE II. Comparison of demographic parameters of different sites of gastric ulcer.

			Body					
	Fundus		Lesser curve		Greater curve		Antrum	
N (%)	8	(7%)	39	(34%)	30	(26%)	37	(32%)
Male	6	(75%)	28	(72%)	22	(73%)	31	(84%)
Female	2	(25%)	11	(28%)	8	(27%)	6	(16%)
Age years (X ± SD)	45 ± 16	-	46 ± 14	-	46 ± 17	-	45 ± 16	
Weight Kg. (X ± SD)	54 ± 7	-	53 ± 12	-	56 ± 17	-	55 ± 12	
Duration of disease months (X ± SD)	47 ± 78	-	29 ± 51	-	16 ± 28	-	42 ± 72	
Smokers	4	(50%)	14	(36%)	8	(27%)	17	(50%)
Tobacco chewers	1	(13%)	4	(10%)	4	(13%)	2	(5%)
Smoking and tobacco chewing	-	-	2	(5%)	3	(10%)	2	(5%)
Analgesic or NSAIDs intake	-	-	4	(10%)	3	(10%)	4	(11%)
Pain	6	(75%)	32	(82%)	23	(77%)	31	(84%)
G.I. bleeding	8	(100%)	22	(56%)	25	(83%)	26	(70%)

showed that the duration of symptoms was longer in patients with fundic and antral ulcers and smoking was also more frequent amongst them. Gastrointestinal bleeding was more frequent in patients having ulcer in the fundus and greater curve side of the body as compared to other sites, but the differences were not significant. Follow-up was available in 58 (42%) patients, all of whom were treated with 112 receptor antagonists (cimetidine 400mg BD or 800mg HS or ranitidine 150mg BD or 300 mg 115) for 4 to 8 weeks. Of them 19 (33%) healed completely and 6 healed partially (size of the ulcer reduced as compared to the initial endoscopy) at 4 weeks. Twenty-one patients were lost to follow-up, after 4 weeks of therapy. Of 37 available patients cumulative healing rates were 78% and partial healing was noted in 2 patients at 8 weeks.

DISCUSSION

The prevalence and incidence of peptic ulcer is not known in Pakistan, however, the age adjusted rate of gastric ulcer patients in this report shows that 0.7 males and 0.3 females/10,000 population of Karachi might be suffering from gastric ulcer. This figure is much lower than that of west being 0.3-3.5/1,000 population[8] and even from our neighbouring country India 1.5/1,000 population[9]. The age at presentation in majority of the patients was between 5th and 6th decades of life, which is similar to that of western countries and a decade later to that of China, Hong Kong and India[10-12]. Gastric ulcer is a disease of older age group but the occurrence of gastric ulcer in comparatively younger individuals in these countries may be the reflection of the age distribution in the population of these countries. The male to female ratio was also similar (2.8:1) to that of India[13] but lower than that of China (4.6:1)".

Similar male preponderence is reported from the west but female patients are known to have a later age of presentation than males[14]. This could be due to longivity of females in those countries and a higher intake of NSAIDs in that age group. Clinical presentation of gastric ulcer was similar to that of Indian[13] series, but complication rates were different from those seen in China[11], where gastrointestinal haemorrhage occurred in 12% cases in contrast to 49% in the present study. Perforation was more frequent in China (12%) than in our population (1.4%). Gastric outlet obstruction due to gastric ulcer was not seen in our patients while it occurred in about 5% in China. These variations may be due to racial differences and difference in eating and living habits in two populations and inclusion of prepyloric ulcers in their study group. Duodenal ulcer may be a familial disease especially when seen in children[15] but such familial predisposition for gastric ulcer is rather infrequent[16] and the same was true for the present study where only 3 patients had family history of ulcer. With a few exceptions where an increased group 0 frequency was found[17], patients with gastric ulcers have no predilection for any blood group[18,19] as shown in this study. This report thus negates the role of genetic factors in the pathogenesis of gastric. ulcer. Majority (53%) of our cases were skilled workers. This is contrary to the observation made in United States and United Kingdom, where gastric ulcer is more common in semi-skilled and unskilled workers[20,21]. In India no difference was observed in the social class prevalence of ulcer disease[22]. These variable results indicate that it is probably not the social class or skill of a person but it is the amount of stress to which one is exposed which determines the relative risk to develop ulcer. This assumption is supported by an earlier study[23]. The present study showed that majority (54%) of the patients were migrants from different countries mostly (45%) from India, while the rest belonged to different provinces of Pakistan. This reflects the normal population pattern in Karachi as stated earlier[7], indicating no ethnic influence on the prevalence of gastric ulcer. The association between smoking and gastric ulcer has long been considered definite. Ulcer patients smoke more than controls and there is two fold increase in peptic ulcers among smokers as compared to controls[24]. Although in this series smoking was more frequent in ulcer patients (33%) than in controls (26.7%), but the difference was not significant (Table I). Similarly tobacco chewing alone in the form of niswar or with pan (betel leaf with lime, nuts and catechu) [7] was encountered more in ulcer patients (10%) than the controls (7.5%) but the difference was not significant, which signifies a poor association between gastric ulcer and addictions in our population. Endoscopic surveys have reported a high prevalence[25,26] and incidence[27,28] of gastric and duodenal ulceration in patients taking NSAIDs (9-22% for gastric ulcer) [29]. In the present series 10% patients were taking NSAIDs as compared to 5% in duodenal ulcer patients reported earlier[7]. This again confirms that the NSAIDs related ulceration is more common in the stomach than in the duodenum. Clinical behaviour of gastric ulcer depends on its site[30-32]. Antral ulcers usually occur in younger males and present with epigastric pain radiating to back which is relieved after meal. Ulcers in the body especially on lesser curve side occur in females after menopause. They present with left hypochondrial pain, related to meals, they are afraid to eat, loose weight and later become anorexic and cachexic. Fundal ulcers usually occur in elderly females and present with central chest pain sometimes radiating to arms, increases after exertion and are not related to meals, very much resembling the anginal symptoms. The behaviour of gastric ulcer at different sites in our population was analysed (Table II), The duration of symptoms was longer and smoking was more frequent among the fundal and antral ulcers. G.T. bleeding was more common in fundal and greater curve side ulcers as compared to others, but the difference was not significant. Healing rates reported in this series are much lower than those from the west[33] versus 65% at 4 weeks and 78% versus 90% at 8 weeks. This could be due to the difference in ulcer pattern in the two countries or it might be due to variations in the dosage of the drug and less stress given to these patients to come for follow- up. A prospective study is therefore needed with a predetermined dosage and regimen to get

more meaningful results and to find factors which can influence the healing and relapse rates of gastric ulcer in our patient population.

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