



A STUDY OF CHANGES IN STOMACH WALL AT THE SITES OTHER THAN PERFORATED DUODENAL ULCER IN DUODENUM ULCER PATIENT IN PATNA MEDICAL COLLEGE, PATNA

KEYWORDS

duodenal ulcer, perforations, endoscopy, gastritis, smokers

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ABSTRACT

Background:- Every year peptic ulcer disease affects 4 million people around the world. Complications are encountered in 10%-20% of these patients and 2%-14% of the ulcers will perforate. Perforated peptic ulcer is relatively rare, but life-threatening with the mortality varying from 10% to 40%. This study was done to study the changes in stomach wall at the sites other than perforated duodenal ulcer in duodenum ulcer patient. **Materials and methods-** In this study, 50 cases were included. Study was done in surgery department of Patna Medical College & Hospital, Patna, Bihar from 2011 to 2014. Thorough examination, investigations and surgeries were performed. The group included both males and females. **Results:** it was found that 12 (24 %) number of cases male had history of duodenal ulcer in his family. In 10 (20 %) of female cases had family history of duodenal ulcer. Maximum no. of cases 27 (54%) were smokers. 16 (32 %) cases were alcoholic. 36 (72 %) had history of use of NSAIDS intake of NSAIDS in the past. 6(12%) had gastric ulcer, 3(6%) had gastric ulcer scar, 10 patient (20%) had erosive gastritis, 4 patients (8%) had multiple small red patch, 3patient (6%) had comb like redness and 24 patient(48%) had no gastric lesion. This shows that there is significant number of patient had associated gastric lesion that is 52%.

INTRODUCTION:-

Peptic ulcer perforations are one of the common causes of acute abdominal emergency. Generally the patient present with acute abdominal pain that threatens life and need urgent laparotomy. Perforation often leads to catastrophic consequences. It occurs due to erosion of the gastro-intestinal wall by the ulcer that leads to spillage of stomach or intestinal content into the abdominal cavity. Perforation most commonly seen in first part of duodenum and lesser curve of stomach. Perforation at the anterior surface of the stomach leads to acute peritonitis, initially chemical and later bacterial peritonitis. Posterior wall perforation leads to bleeding due to involvement of gastroduodenal artery that lies posterior to the 1st part of duodenum. . Peptic ulcer occurs commonly due to some common cause I.e H pylori infection, NSAID use, tobacco use, and carcinoma.

MATERIAL AND METHODS

The present work was conducted in patients admitted in different surgical wards of Patna Medical College & Hospital, Patna during the period of 2011-2014. A total number of 50 patients were selected in this study. Maximum no. of cases (38%) of this study were in between 41 to 50 years. Maximum number (66%) of patient was male [Ratio 1.9:1 {33 male 17 female}]. All patients were taken to Gastroenterology Department and upper Gastrointestinal Endoscopy done and Biopsy taken from the stomach wall.

Results:

Total number of patients in study is 50.

12 (24 %) number of cases male had history of duodenal ulcer in his family. In 10 (20 %) of female cases had family history of duodenal ulcer.

Maximum no. of cases 27 (54%) were smokers.

16 (32 %) cases were alcoholic

36 (72%) had history of use of NSAIDS intake of NSAIDS in the past.

TABLE NO 1. SHOWING THE ENDOSCOPIC FINDINGS OF

Sl.	Endoscopic Findings	No. of Cases	Percentage
1.	Gastric Ulcer	6	12 %
2.	Gastric Ulcer Scar	3	6 %
3.	Erosive Gastritis	10	20 %
4.	Multiple Small Red Patches	4	8 %
5.	Comb Like Redness	3	6 %
6.	No Gastric Lesions	24	48 %

GASTRIC LESION CO-EXISTING IN CASES OF DUODENAL ULCER PERFORATION

The study shows that 6 patient I.e (12%) had gastric ulcer on Endoscopic Finding, 3 (6%) had Gastric Ulcer Scar, 10 (20%) had Erosive Gastritis, 4 (8%) had Multiple Small Red Patches, 3 (6%) had Comb Like Redness and 24 (48%) had No Gastric Lesions.

TABLE - 2 CO-EXISTING RATE OF GASTRIC ULCER WITH DUODENAL ULCER PERFORATION

Age	Number of Cases	Gastric Ulcer	Gastric Ulcer Scar
≤ 40	16	2 (12.5 %)	1 (6.25 %)
> 40	34	4 (11.76 %)	2 (5.88 %)
Total	50	6 (12 %)	3 (6%)

There is less than 40 years of age out of 16 cases 2(12.5%) had Gastric Ulcer 1 (6.25%) had gastric Ulcer Scar. In >40 years of age out of 34 cases 4(11.76%) had gastric ulcer and 2(5.88%) had Gastric Ulcer Scar.

TABLE - 3:- SHOWS THE CO-EXISTING RATE OF EROSIIVE GASTRITIS WITH DUODENAL ULCER PERFORATION

Age	Number of Cases	Erosive Gastritis	
		No. of Cases	Percentage
≤ 40	16	3	18.75%
> 40	34	7	20.58%
Total	50	10	20%

The study shows that less than and equal to 40 years of age out of 16 cases 3(18.75%) had Erosive Gastritis and in >40 years of age out of 34 cases 7(20.58%) had Erosive gastritis

TABLE - 4 SHOWING CO-EXISTING RATE OF MULTIPLE SMALL RED PATCHES WITH DUODENAL ULCER PERFORATION

Age	Number	Comb Like Redness	
		No. of Cases	Percentage
≤ 40	16	1	6.25%
> 40	34	2	5.88%
Total	50	3	6%

Age	No. of Cases	Multiple Red Patches	
		No. of Cases	Percentage
≤ 40	16	1	6.25%
> 40	34	3	8.82%
Total	50	4	8%

The study shows that less than and equal to 40 years of age out of 16 cases 1(6.25%) had Multiple small Red Patches and in >40 years of age out of 34 cases 3(8.82%) had Multiple small Red Patches.

TABLE 5:- SHOWS THE CO-EXISTING RATE OF COMB LIKE REDNESS WITH DUODENAL ULCER PERFORATION

The study shows that in less than and equal to 40 years of age out of 16 cases 1(6.25%) had Comb like Redness and in >40 years of age out of 34 cases 2(5.88%) had Comb like Redness.

TABLE – 6 SHOWS CO-EXISTING RATE OF NORMAL FINDING (NO GASTIC LESION) WITH DUODENAL ULCER PERFORATION

Age	Number	Normal Finding (No Gastric Lesion)	
		No. of Cases	Percentage
≤ 40	16	7	43.75%
> 40	34	17	50%
Total	50	24	48%

Out of 50 CASE there IS 24(48%) case has no gastric lesions I.e. normal finding

TABLE –7 SHOWS THE DISTRIBUTION OF GASTRIC ULCER IN STOMACH CO-EXISTING WITH DUODENAL ULCER PERFORATION

Distribution	No. of Cases	Percentage
Antrum	3	50%
Body	2	33.33%
Pre pyloric	1	16.67%
Total	6	100%

In study total number of case is 6. And Finding is in Antrum in 3(50%) case and in 2 (33.33 %) case is in body and in 1(16.67 %) case in pre pyloric region

TABLE NO 8:- SHOWS DISTRIBUTION OF EROSIIVE GASTRITIS CO-EXISTING WITH DUODENAL ULCER PERFORATION

Distribution	No. of Case	Percentage
Antrum	7	70%
Body	1	10%
Pre pyloric	2	20%
Total	10	100%

In out of 10 cases there is in 7 (70%) case erosive gastritis is present in Antrum and in 2(20%) case in body and in 1(10%) case in pre pyloric region

TABLE –9SHOWS DISTRIBUTION OF MULTIPLE SMALL RED PATCHES CO-EXISTING WITH DUODENAL ULCER PERFORATION

Distribution	No. of Cases	Percentage
Antrum	3	75%
Body	0	0%
Pre pyloric	1	25%
Total	4	100%

In out of 4 cases, in 3(75%) case red patches seen in Antrum and in (25%) case in pre pyloric region

TABLE – 10 SHOWS DISTRIBUTION OF COMBLIKE REDNESS IN STOMACH WALL CO-EXISTING WITH DUODENAL ULCER PERFORATION

Distribution	No. of Cases	Percentage
Antrum	1	33.33%
Body	2	66.67%
Pre pyloric	0	0%
Total	3	100%

OUT OF 3 CASES: - COMB LIKES REDNESS SEEN IN ANTRUM IN 1(33.33%) CASE AND IN BODY 2 (66.67%) AND IN PRE PYLORIC REGION 0%

TABLE 11 SHOWS THE ENDOSCOPIC BIOPSY AND INCIDENCE OF H-PYLORI INFECTION ON MICROSCOPIC EXAMINATION

	H-PYLORI	
	Present	Absent
No. of Cases	45	5
%	90%	10%

In total 50 case there is in 45(90%) case H pylori infection present and in 5(10%) case infection absent

TABLE 12 SHOWS THE ENDOSCOPIC BIOPSY AND HISTOPATHOLOGIC FINDING OF INTESTINAL METAPLASIA IN STOMACH WALL MUCOSA

	INTESTINAL METAPLASIA	
	Present	Absent
No. of Cases	21	29
%	42%	58%

In out of 50 case, in 21 intestinal metaplasia present in 29 (58%) were

DISCUSSION:-

In the present case series endoscopic study was done to observe changes in stomach wall at sites other than the ulcer in 50 clinically proven patients of duodenal ulcer perforation.

To study the prevalence of duodenal perforation in different age groups the patients were divided according to different age group. As in table-1 it was seen that there were 2 patients in age group below 20 years, 4 in the age group between 21-30 years, 10 in 31-40 years age group range, 19 in 41-50 age group range, 12 in 51-60 age group range and 3 were in the age group above 60 years. That data suggest that maximum percentage of cases are in the age group of 41-50 years constituting the majority group that is 38% followed by 31-40 age group constituting 20%, (Table-1). This is in conformity to the findings of KiyoshiNatsukawa, Yoshinoba FUSE, et al.(2011) who findings was that maximum number of cases of duodenal perforation average age range was 41.1 years.

Endoscopic findings of the study group i.e. 50 patients of duodenal ulcer perforation showed that 26 patients i.e. 52% had gastric lesion coexisting with duodenal ulcer perforation. Out of these 26 patients, maximum number of patients i.e.10 (20%) had endoscopic finding suggestive of erosive gastritis. 6 patient's endoscopic finding gastric ulcer accounting for 12% of the total. 3 patients had Endoscopy features showing gastric ulcer scar. 4 patients i.e. 8% of the total had multiple small patches while 3patient i.e. 6 had comb like redness.

Rest of the 24 patients i.e. 48% had no evidence of any gastric lesion on Endoscopy. These findings suggest that significant number of patients of duodenal ulcer and duodenal ulcer perforation have associated.

SUMMARY

Total number of 50 patients with DU perforations was studied and postoperative endoscopy done and biopsy taken. These patient were investigated with respect to series of parameter including the usual demographic features, anatomical criteria, aetiology with respect to various gastrointestinal endoscopic findings that is presence of gastric ulcer erosive gastritis multiple small red patches comb like

redness, presence or absence of H PYLORI and meta plastic changes in stomach.

Age distribution was less than 20 years (4%), 21-30 (8%), 31-40 (20%), 41-50(38%), 51-60 yr (24%), and 61and above (6%)

In a group of 50 patient do duodenal ulcer perforations the upper gastrointestinal endoscopy shows coexisting lesion in patient with DU perforations. 6(12%) had gastric ulcer, 3(6%) had gastric ulcer scar, 10 patient (20%) had erosive gastritis, 4 patients (8%) had multiple small red patch, 3patient (6%) had comb like redness and 24 patient (48%) had no gastric lesion. This shows that there is significant number of patient had associated gastric lesion that is 52%.

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