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A CLINICAL PROFILE OF PERFORATED DUODENAL ULCER

Dr. Vishal Kaundal[1], Dr. Vikrant Sharma[2]
Medical Officer, Department of Surgery, Zonal Hospital Dharamshala, Himachal Pradesh.

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Address for Correspondence: Dr. Vikrant Sharma, H No.-570, Cantt road, Kotwali Bazar, Dharamshala, Distt. Kangra, (H.P.)
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Abstract
Background: Duodenal ulcer is a common condition characterized by the presence of a well- demarcated break in the mucosa that may extend into the muscularis propria of the duodenum.
Methods: This prospective observational study was conducted in the Department of Surgery, Dr. Rajendra Prasad Government Medical College Kangra at Tanda, consisting of patients hospitalised in department of surgery. Patient data was collected from all patients showing clinical signs and symptoms of perforated duodenal ulcer, attending Dr. RPGMC TANDA during 1 year period after ethical clearance of study.
Results: The mean age of patients was 43 years with maximum number of patients were of age group between 19-45 years. Ninety two percent of patients were male and 8% were female. Sixty two percent of patients with duodenal ulcer perforation belong to low socioecnomic strata. Ten percent of patients presented within 24 hours after onset of symptoms. Ten percent of patients out of 90 % which presented after 24 hours were in shock.
Conclusion: Perforation of duodenal ulcer remains a frequent clinical problem in our environment predominantly affecting 19-45 years group labourer males known to suffer from duodenal ulcer.
Keywords: Duodenal Ulcer, Perforation, Clinical Profile

Introduction:

Duodenal ulcer is a common condition characterized by the presence of a well- demarcated break in the mucosa that may extend into the muscularis propria of the duodenum. Despite better understanding of pathophysiology and medical therapy of acid peptic disease, duodenal ulcer perforation remains one of the major cause of peritonitis and surgical emergencies in India[1,2,3].The major risk factors associated with duodenal ulcer perforation are age, sex, previous history of ulcer disease, use of tobacco, alcohol, corticosteroid and NSAIDS.

Ulcer perforation incidence increased greatly at the turn of the twentieth century since then the incidence of ulcer and perforation studied extensively in Scotland, Norway and United Kingdom which showed that in men the incidence increased up to 1950 and remained stable thereafter whereas, in women it remained fairly stable. It also showed increased incidence of perforation in elderly than in younger individual.

To study clinical profile and risk factors associated with perforated duodenal ulcer this study is being conducted in department of surgery at Dr. RPGMC Tanda.

MATERIAL AND METHODS

This prospective observational study was conducted in the Department of Surgery, Dr.Rajendra Prasad Government Medical College Kangra at Tanda, consisting of patients hospitalised in department of surgery. Patient data was collected from all patients showing clinical signs and symptoms of perforated duodenal ulcer, attending Dr. RPGMC TANDA during 1 year period after ethical clearance of study. The diagnosis of duodenal ulcer perforation was that established by the admitting surgeon, based on clinical features and supposed by radiological evidence and confined at operation.

Exclusion criteria

Patients with peritonitis cause other than duodenal ulcer perforation.

Data-analysis

To collect required information from eligible patients a pre-structured pre-tested proforma was used. For data analysis Microsoft excel and statistical software SPSS was used and data was analyzed with the help

of frequencies, figures, proportions, measures of central tendency and appropriate statistical test.

RESULTS

In the present prospective study, we had taken 59 patients of peritonitis due to duodenal ulcer perforation. The following observations were made:

Table 1: Age distribution of cases

Age	No. of patients	Percentage
0-18	2	3.38%
19-45	31	52.54%
46-60	20	33.89%
>60	6	10.16%

The age of the patients in our study ranged from 12 to 80 years with a mean age of 43.74 years, Maximum no of patients 52.54% were of age group 19-45years, followed by 33.89% in 46-60years of age and then 10.16% in more than 60yrs of age and 3.38 were of age group 0-18 yrs.

Table 2: Showing sex distribution

Sex	No of Patients	Percentage
Male	54	91.5 %
Female	5	8.4 %

The sex distribution of the study showed that 54 out of 59 patients (91.5%) were male and 5 patients (8.4%) were female.

Table 3: Distribution of patients according to District

Sr. No.	District	No of patients	Percentage
1	Kangra	22	38%
2	Chamba	15	25%
3	Hamirpur	14	24%
4	Mandi	6	9%
5	Bilaspur	1	2%
6	Una	1	2%

In this study, majority of the patients were from District Kangra (38%), followed by District Chamba (25%) and District Hamirpur (24%). Nine percent of patients were from District Mandi where as patients from Districts Bilaspur and District Una represent 2% each.

Table 4: Religion of patients presented with perforation

Religion	No. patients	Percentage
Hindu	58	99%
Bhuddist	1	1%

In our study comprising of 59 patients, 58 (99%) practiced Hinduism, whereas only 1 patient (1%) was bhuddist by religion.

Table 5: Occupation of patients presented with Perforation

Occupation	No. of patients	Percentage
Labourer	19	32%
Farmer	9	15%
Private job	9	15%
Student	6	10%
Govt. job employee	4	7%
Retired govt. employee	4	7%
Housewife	5	9%
Other	3	5%

In our study majority no of patients were labourer' s (32), farmers and private job employee (32%, 15% and 15%) respectively. Other participants in the study belong to numerous other profession including Student's (10%), Govt. job employee (7%), Retired govt. job employee (7%), Housewife (9%) and other various profession

Table 6: Time of presentation after onset of symptoms

Time of presentation	Frequency	Percentage
<24 hours	6	10%
24 – 48 hours	39	66%
>48 hours	14	24%

In our study 6 patients (10%) presented within 24 hours after onset of symptoms. Thirty nine (66%) patients presented between 24 – 48 hours whereas 14 (24%) patients presented after 48 hours. Sixteen percent of patients who presented after 24 hours of onset of symptoms were in shock.

DISCUSSION

Age of the patients in the present study ranged from 12-80 years with a mean age of 43.74 years which is in contrast to the study done by Brock J et al [4] in which peak incidence of peptic ulcer disease was seen in 70years of age. Studies done by Nishith M et al[5] and Hannan et al[6] had a mean age of 36 years and 41 years respectively which is comparable to our study in which incidence is seen more in young population.

In this study on 59 patients, duodenal ulcer was seen predominantly in males i.e 92% which is in comparable to the studies done by Zahid Aman et al [7]

and Nishith M etal[5] with the incidence of duodenal ulcer 90% and 78% respectively in males.

In our study, the incidence of duodenal ulcer was seen in predominantly in District Kangra followed by District Chamba which can be explained on the basis that Dr RPGMC Tanda is the nearest territory centre to these regions.

In our study, the incidence of duodenal ulcer disease was seen predominantly in people belonging to low socioecnomic strata(62%).

In our study majority of patients i.e 90 % presented after 24hours of onset of symptoms which is in comparable to the study done by Nishith M et al[5] in which majority of patients presented after 24 hours however study conducted by Everett et al [44] observed that 68% patients presented to hospital within 24 hours of onset of symptoms. The delay of presentation to the hospital in our study can be explained on the basis of lack of awareness, illiteracy and referral units.

CONCLUSION

Perforation of duodenal ulcer remains a frequent clinical problem in our environment predominantly affecting 19-45 years group labourer males known to suffer from duodenal ulcer.

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