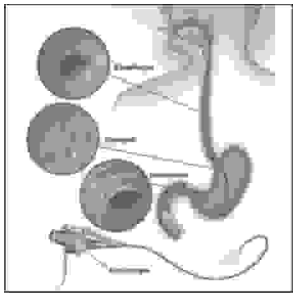
ORIGINAL PROF-1325

DYSPEPSIA AND UPPER GASTROINTESTINAL ENDOSCOPY;

MULTAN EXPERIENCE



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ABSTRACT... Objective: To find out causes of dyspepsia on upper gastrointestinal endoscopy. **Setting:** Endoscopy unit of Nishtar Hospital Multan. **Period:** May 2005 to August 2007. **Material and methods:** Patients suffering from dyspepsia were referred by consultants of Nishtar Hospital Multan and doctors working in the periphery for endoscopy. **Results:** 502 patients were scoped for dyspepsia; 254(50.6%) were male and 248(49.4%) were female. Mean age was 42.5 years and age range was 7-95 years. Most common lesion was gastroduodenitis (20% cases) followed by gastric ulcer (5.4% cases). Ratio of duodenal ulcer to gastric ulcer was 1:2. 56% patients had no pathology; females were more likely to have normal endoscopy. **Conclusion:** Gastroduodenitis is the most frequent organic cause of dyspepsia. Functional dyspepsia is more common among females.

Key words: Dyspepsia, Endoscopy

INTRODUCTION

Dyspepsia is a common but nonspecific symptom. It can be due to a number of diseases of the esophagus, stomach and duodenum. When no cause is found it is called functional dyspepsia. Most reliable investigation to find out underlying cause of dyspepsia is upper gastrointestinal endoscopy. A number of studies have focused on indications for upper gastrointestinal endoscopy in such patients. Some studies recommend "open access" policy to avoid missing any serious diagnosis while others support pre procedure evaluation to restrict use of endoscopy to those patients with possible high yield so that numbers of procedures are reduced.

This study is analysis of results of upper gastrointestinal endoscopy in patients with upper gastrointestinal symptoms performed in Endoscopy Unit of Nishtar Hospital Multan from May 2005 to August 2007 under open access policy. Procedure was done by one of the authors.

PATIENTS AND METHODS

The patient referral area of Nishtar Hospital Multan includes most of the South Punjab and adjacent areas of other three provinces. Patients were referred by specialists of Nishtar Hospital, local general practitioners and doctors working in the periphery. Procedure was done under "open access" policy i.e., appointment for the procedure was given on the recommendation of referring doctor.

Documentation was done on a standardized data sheet which included personal details, clinical features and reason for referral, relevant investigations, findings of endoscopy and results of biopsies where relevant. Procedure was done after overnight fast with videogastroscope Olympus model GIF 160.

RESULTS

A total of 502 patients had upper gastrointestinal endoscopy for dyspepsia from May 2005 to August 2007; 254(50.6%) were male and 248(49.4%) were female. Mean age was 42.5 years and age range was 7-95 years (table-I).

Table-I.

Diagnosis	Total			Male			Female		
	No (%)	Mean age(yrs)	Range (yrs)	No (%)	Mean age(yrs)	Range (yrs)	No (%)	Mean age(yrs)	Range (yrs)
Esophagitis	12(2.8)	47.1	13-80	8(57)	55.3	34-80	6(43)	36.5	13-60
Esophageal candidiasis	9(1.7)	50.8	18-70	5(56)	52.8	34-70	4(44)	48.2	18-70
Esophageal varices	15(3.0)	47.3	13-70	10(67)	47.1	19-60	5(33)	47.6	13-70
Esophageal carcinoma	6(1.2)	53.1	36-68	4(67)	60.8	55-68	2(33)	38	36-40
Gastritis	68(13.5)	43.9	12-95	33(48.5)	42.8	14-80	35(51.5)	44.8	12-95
Gastric carcinoma	10(2.0)	49.7	36-65	8(80)	52.0	40-65	2(20)	42	36-50
Gastric ulcer	27(5.4)	46.2	18-65	15(56)	47.0	20-65	12(44)	45.4	18-60
Duodenitis	8(1.6)	38.3	20-70	6(75)	46.0	20-60	2(25)	35	20-70
Duodenal ulcer	15(3.0)	45.9	20-65	11(73)	44.6	20-65	4(27)	49.3	36-60
Miscellaneous	14(2.8)	44.9	13-70	10(71)	45.9	14-70	4(29)	43.7	13-70
Multiple pathologies	37(7.0)	43.2	19-75	20(57)	42.6	21-75	15(43)	44.2	19-70
Normal	281(56.0)	39.7	7-80	129(46)	38.9	12-70	152(54)	40.3	7-80
Total	502(100)	42.5	7-95	254(50.6)	42.6	12-80	248(49.4)	42.3	7-95

Esophagitis was found in 14(2.8%) cases; 8(57%) were male and 6(43%) were female. Mean age of these patients was 47.1 years; age range was 13-80 years. Esophageal candidiasis was found in 9(1.7%) cases; 5(56%) were male and 4(44%) were female. Mean age of these patients was 50.8 years; age range was 18-80 years (table I).

Esophageal varices were found in 15(3.0%) cases; 10(67%) were male and 5(33%) were female. Mean age of these patients was 47.3 years; age range was 13-70 years. Esophageal carcinoma was found in 6(1.2%) cases; 4(67%) were male and 2(33%) were female. Mean age of these patients was 53.1 years; age range was 36-68 years (table I).

Gastritis was seen in 68(13.5%) cases; 33(48.5%) were male and 35(51.5%) were female. Mean age of these patients was 43.9 years; age range was 12-95 years. Gastric carcinoma was found in 10(2.0%) cases; 8(80%) were male and 2(20%) were female. Mean age of these patients was 49.7 years; age range was 36-65 years (table I).

Gastric ulcer was seen in 27(5.4%) cases; 15(56%) were male and 12(44%) were female. Mean age of these patients was 46.2 years; age range was 18-65 years (table I).

Duodenitis was found in 8(1.6%) cases; 6(75%) were male and 2(25%) were female. Mean age of these patients was 38.3 years; age range was 20-70 years (table I).

Duodenal ulcer was seen in 15(3.0%) cases; 11(73%) were male and 4(27%) were female. Mean age of these patients was 45.9 years; age range was 20-65 years (table I).

Miscellaneous pathologies were present in 14(2.8%) cases; 10(71%) were male and 4(29%) were female. Mean age of these patients was 44.9 years; age range was 13-70 years (table I).

These pathologies included Barret's esophagus, polyps (esophageal, gastric and duodenal) and diverticulae (esophageal and duodenal) (table II).

Table-II. Miscellaneous (n=14)

Pathology	No of pts	%age
Esophageal diverticulum	1	7.1%
Esophageal polyp	1	7.1%
Barret's esophagus	3	21.4%
Gastric polyp	2	14.3%
Duodenal polyp	4	28.6%
Duodenal diverticulum	1	7.1%
Hookworm in duodenum	2	14.3%
Total	14	100%

Multiple pathologies were seen in 35(7.0%) cases; 20(57%) were male and 15(43%) were female. Mean age of these patients was 43.2 years; age range was 19-75 years (table II). Most common combination was that of gastritis and duodenitis (12 cases) (table III).

Table-III. Multiple pathologies (n = 35)

Pathology	No of patients
COMMON PATHOLOGIES	
Esophagitis	11
Gastritis	24
Duodenitis	12
COMBINATION	
Combination	**No of patients**
Gastritis + Duodenitis	12
Gastritis + esophagitis	6
Gastritis + Gastric ulcer	2
Gastritis + Duodenal ulcer	2
Esophagitis + Duodenal ulcer	2
Others	11
Total	35

281(56%) patients had normal findings; 129(46%) were male and 152(54%) were female. Mean age of these patients was 39.7 years; age range was 7-80 years.

DISCUSSION

In this study male preponderance is absent (50.6% male and 49.4% female), against expectations from a male predominant society as reported in local studies[1]. In two previous studies reported by us there was some male preponderance (56.6% male and 43.4% female in 1986[2], 55.3% male and 44.7% female in 1993[3]). These results reflect gradual change towards gender equality over the years.

Rate of negative endoscopy (56%) may look too high compared to studies using pre procedure evaluation (28-42%)[1,4,5,6,7] but it is similar to many other studies following "open excess" policy as ours[8]. Strict selection criteria required to reduce this rate will result in missing significant pathology in a large number of patients. High rate of normal endoscopy in female patients (61.3% v 50.8%) gives objectivity to the common belief that functional dyspepsia is more common in female. This observation is also reported by Shah et al[1].

Gastritis alone was the most common pathology (68 or 13.5% cases) in this study. It was also seen in combination with other pathologies in another 24 or 4.8% cases. Overall gastritis was seen in 92 or 18.3% cases. This may be due to high prevalence of H Pylori infection in our locality which was 64% in patients with dyspepsia reported in an earlier study from Multan[9].

Gastric ulcer was second most common pathology (27 or 5.4% cases). It was twice as common as duodenal ulcer (15 or 1.6%cases). The incidence of peptic ulcer disease[10] and ratio of duodenal ulcer to gastric ulcer has changed considerably since 19th century when reported ratio was 1:20[11]. Since then till middle of 1960 the incidence of duodenal ulcer increased and this coupled with decreased incidence of gastric ulcer resulted in generally accepted duodenal to gastric ulcer ratio of 10:1[11]. Incidence of duodenal ulcer has fallen in recent years and latest reported ratio is 4-5:1[12].

The reverse duodenal ulcer to gastric ulcer ratio in our series is also reported from Japan and South America[13,14,15] and is in conformity with our study published in 1986 (69 gastric ulcer v 17 duodenal ulcer)[2]. So this is a consistent observation over the years from South Punjab. It is suggested that results of future endoscopies should be critically evaluated; if this observation is confirmed, search should be made for possible underlying factors. Gastric ulcer occurs mostly in 6th decade of life in European communities, approximately ten years later than for duodenal ulcer[13]. In this series mean age both for duodenal ulcer and gastric ulcer was 46 years supporting the view that in our country these diseases occur at an earlier age[12]. Peptic ulcer was more common in males; this is in agreement with other studies[2,11,12].

Gastric carcinoma was seen in 10 or 2% cases and mean age was 50 years. This is similar to the reports from other parts of the country, though in European countries this is a disease of 7th or 8th decade[17]. There were 6 cases of carcinoma of esophagus, so overall malignancy found in 16 or 3.2% cases is much less than 10% reported by Shah et al[1].

Multiple pathologies were seen in 35(7.0%) cases. This figure was 14% in a study by Shah et al[1]. Common pathologies were esophagitis (11 cases), gastritis (24 cases) and duodenitis (12 cases), and most common combination was gastritis and duodenitis (12 cases). All cases of duodenitis had gastritis as well and this could be due to H pylori infection.

Miscellaneous pathologies were seen in 44 (8.7%) cases. Among these 15 cases had esophageal varices without history of hematemesis or melena and were not known cases of chronic liver disease. This reflects high prevalence of chronic liver diseases in our surroundings. Esophageal varices are the most common cause of upper GI bleeding in our area. Six cases had carcinoma esophagus without history of dysphagia which signifies importance of scoping patients of dyspepsia.

The procedure was not associated with any major complication. Sore throat, nausea and bloating were

reported by some patients but these were transient.

CONCLUSION

Results of 502 upper gastrointestinal endoscopies done in cases of dyspepsia were analyzed. Fifty six percent had no visible lesion; normal endoscopy was more frequent in female. Most common lesion was gastroduodenitis. Duodenal ulcer to gastric ulcer ratio was 1:2 which is against the reports from the West and other part of the country but is in conformity with a previous report from the same center and also reports from Japan and South America. Malignancy was found in 3.2% cases only which is less than reported rates (10%) from other parts of the country.

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