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ENDOSCOPIC STUDY OF DYSPEPSIA IN A TERTIARY CARE HOSPITAL OF ROHILKHAND REGION

General Medicine

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ABSTRACT

Background: Dyspepsia is a condition of impaired digestion and symptoms including abdominal fullness, nausea, belching or upper abdominal pain. Of all adults 30-40% experience symptoms of upper abdominal pain or discomfort but an organic cause is found in only a minority who seek medical care1. It is necessary to know the causes of dyspepsia to establish the management protocol. UGI endoscopy is the method of choice in the differentiating between structural and functional dyspepsia.

Aim: This study was being undertaken to determine the importance of Upper GI endoscopy in diagnosis and management of patients with dyspepsia in a tertiary care hospital of Rohilkhand region.

Materials and Methods: This was a observational study carried out at SRMS IMS Hospital, Bareilly, over a period of 3 month between March-May, 2017. 100 patients presenting with dyspepsia were studied with UGI Endoscopy and Ultrasound abdomen of all the patients. Endoscopic biopsy was was performed wherever indicated to study the histopathology. A detailed history and clinical examination were done with relevant investigations in all the patients.

Results: Out of 100 dyspeptic patients, 52 patients (52%) had functional dyspepsia (i.e. normal USG and normal UGI endoscopy) and 48 patients (48%) had dyspepsia of organic origin. Amongst organic causes, 17 patients (35.41%) had inflammatory lesions (i.e. gastritis, gastroduodenitis, duodenitis and esophagitis). Duodenal ulcer was seen in 16 patients (33.33%), 4 patients (8.33%) had gastric ulcer, Carcinoma stomach and Carcinoma Esophagus in 1 patient (2.08%) and 2 patients (4.16%) respectively. Hiatus Hernia was present in 4 patients (8.33%). Functional dyspepsia was present mostly in the females (40 females (76.92%)) while organic dyspepsia group mostly in the males (32 patients (66.67%)).

Conclusion: Upper GI Endoscopy study revealed commonly as functional dyspepsia. Organic dyspepsia was more common in males whereas functional dyspepsia was more common in females. The frequency of functional and organic dyspepsia were almost similar. UGI endoscopy is useful in diagnosing etiology and helps in management.

KEYWORDS

UGI Endoscopy, Dyspepsia, Gastritis, Functional, Organic Dyspepsia

Introduction:

It is a common clinical entity that dyspeptic symptoms are commonly encountered in the out-patient and in-ward setting of the hospitalsall over the world[1]It is very difficult to define dyspepsia and the patient may complaint of multiple vague symptoms and may choose words not frequently encountered by the clinician to describe his or her symptoms. As per Dr. WG Thompson, dyspepsia defies definition.[2]

According to 2006 Rome III criteria, functional dyspepsia must include one or more of the following symptoms, which are, bothersome post-prandial fullness, early satiety, epigastric and burning with no evidence of structural disease. The Criteria should be fulfilled for atleast 3 months with symptom onset at least 6 months previously.[3]

Heartburn is not included as a diagnostic symptom criteria for dyspepsia. It is thought to arise mainly from the esophagus being caused by gastro-esophageal reflux disease although it may occur concomitantly with dyspeptic symptoms.[4]

Not all patients with dyspepsia have an organic cause, and not every dyspeptic patient has a functional component attached to his or her symptoms. The common organic causes of dyspepsia are peptic ulcer, esophagitis and cancer. Once the decision has been made to investigate, the diagnostic test of choice is endoscopy.[5] Patients in whom the investigations have not revealed any organic cause are labelled as functional dyspepsia or "non ulcer dyspepsia".

This study was conducted to determine the diagnostic value of UGI endoscopy in patients presenting with dyspepsia in a tertiary care hospital (SRMS IMS, Bareilly) of Rohilkhand region.

Materials and Methods: This was a retrospective study carried out at Shri Ram Murti Smarak Institute of Medical Sciences (SRMS IMS), Bareilly, over a 3 months period from July 2017 to September 2017. SRMS IMS is a tertiary care hospital in Bareilly, Uttar Pradesh.

The Endoscopy Unit at the hospital is open-access service and receives patient from the OPD, admitted wards and other hospitals. The Gastroenterologist performed all the UGI endoscopies. Endoscopic biopsy was performed as and when needed.

Patients of eighteen years of age or above of both sexes, who attended the out patient department or admitted in our hospital whose symptoms were suggestive of dyspepsia were included in this study. Dyspepsia was defined as epigastric discomfort, burning sensation or painin abdomen persisting for at least 3 months with onset of symptoms for at least 6 months previously.

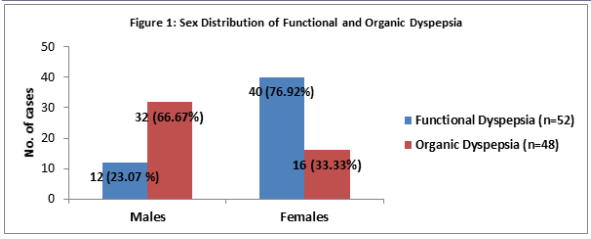
A detailed History regarding Diet, Smoking, Drug History were taken from the patients and routine investigations in the form of complete blood counts, renal function tests and liver function tests were carried out in all the patients. UGI endoscopy and Ultrasound Whole Abdomen were performed in all the patients. Diagnosis of functional dyspepsia was made according to the Rome III criteria. [3]

Observations and Results: One hundred patients were included in this study, of these 56 patients (56%) were females and 44 patients (44%) were males. Age ranged from 28 to 66 years, withmean 45±6.93 years. The duration of disease ranged from one month to six months.

Dyspepsia Type	*Males*	*Females*
Functional Dyspepsia (n=52)	**12**(23.07%)	**40**(76.92%)
Organic Dyspepsia (n=48)	**32**(66.67%)	**16**(33.33%)

Table 1: Table of Sex Distribution

Amongst 100 dyspeptic patients 48 (48%) were of organic nature while the rest of them were functional. In organic dyspeptics, 32 patients (66.67%) were males and 16 patients (33.33%) were females. The functional dyspeptics have the sex ratio of Males: Females = 1:3.3 (12 patients i.e. 23.07% were males while 40 patients (76.92%) were females. (Table 1 and Fig. 1)

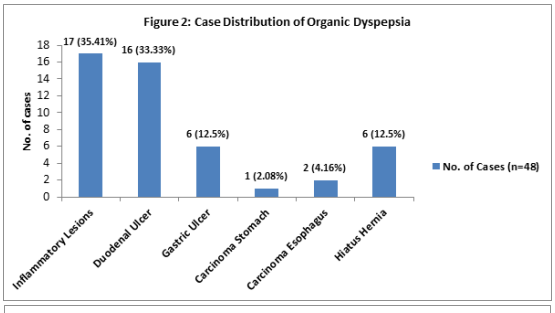


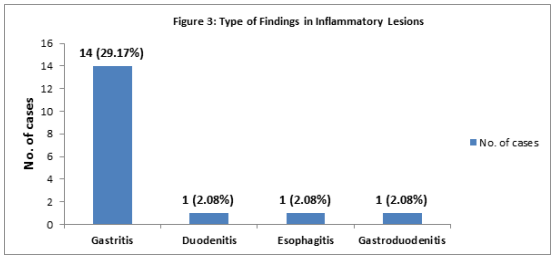
Type of Findings in Organic Dyspepsia (n=48)	*No. of Cases (with %)*
1. Inflammatory Lesions	17 (35.41%)
Gastritis	14 (29.17%)
Duodenitis	1 (2.08%)
Esophagitis	1 (2.08%)
Gastroduodenitis	1 (2.08%)
2. Duodenal Ulcer (including channel ulcer)	16 (33.33%)
3. Gastric Ulcer	6 (12.5%)
4. Carcinoma Stomach	1 (2.08%)
5. Carcinoma Esophagus	2 (4.16%)
6. Hiatus Hernia	6 (12.5%)

Table 2: Causes of Organic Dyspeptic Cases

A total of 48 patients had Organic Dyspepsia, of these majority of them i.e. 17 patients (35.41%) had an inflammatory lesion, out of which Gastritis present in 14 (29.17%)

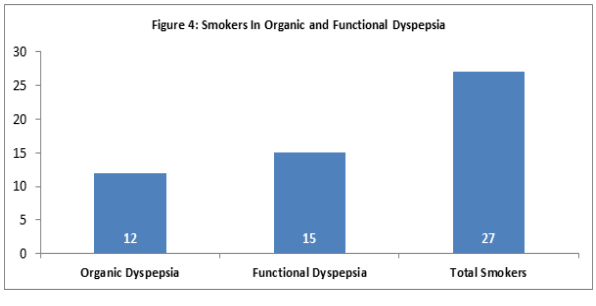
Next In the Organic Dyspeptic group, Duodenal Ulcer was detected in 16 patients (33.33%), Gastric Ulcer was present in 6 (12.5%) patients, Carcinoma Stomach, Carcinoma Esophagus and Hiatus hernia were less in number.





Smokers with Organic Dyspepsia	Smokers with Functional Dyspepsia	Total Smokers
12	15	27

Table 3: Smokers In Organic and Functional Dyspepsia



A total number of 27 patients were smokers in the study group out of which 15 patients were in the functional dyspeptic group and 12 patients had dyspepsia due to an organic cause.

Discussion: This study was undertaken to evaluate the significance of Upper Gastrointestinal Endoscopy in differentiating organic and functional dyspepsia.

Most patients with dyspepsia have no detectable organic disease[6-10]. Dyspepsia with no evidence of organic disease is termed non-ulcer or functional dyspepsia[9-12]. This is the reason that the diagnosis, evaluation and treatment/management of dyspepsia goes on simultaneously, because an extensive diagnostic investigation to detect organic disease prior to therapy is not cost effective and might even be harmful.[10] Dyspepsia is a common clinical problem seen by both primary care physicians and gastroenterologists. Dyspepsia accounts for about 4-5 % of all general practitioner consultations and 20-40% of all gastroenterological consultations[13]. It was observed that approximately 40% patients of dyspeptic patients have an organic cause, and only 20% of the patients have significant gastroduodenal lesions, such as peptic ulcer.[13,14,15.] The most commonly reported major endoscopic abnormalities are: gastric ulcer (1.6-8.2%), duodenal ulcer (2.3-12.7%), esophagitis (0-23.0%), and gastric malignancy (0-3.4%).[7] Only in a few cases are dyspeptic symptoms caused by gastro-esophageal malignancy.[6] While gastric or esophageal cancer is an unusual finding in patients with dyspepsia, excluding malignancy, which is a common reason given for performing endoscopy.[4] Once an organic cause for symptoms has been excluded, a diagnosis of functional dyspepsia can be made.[4]

Many dyspeptic patients are subjected to endoscopic evaluation as the initial step in diagnosis and management, even though guidelines recommend endoscopic evaluation for elderly patients (≥55 years), those with alarm symptoms, taking NSAIDS, resistant to medications and H. Pylori eradication.[9-12]

The age patternof the present series is closely similar to those of other studies, with few patients less than 30 years of age and more patients in the 40-50 years age group with mean age , 45±6.93 years, might be because UGI tract diseases are more prevalent in the elderly group[16,17,18,19].

Present study revealed, 52 patients (52%) with functional dyspepsia as reported in other studies (50-60% of patients with functional or non ulcer dyspepsia)[2,3,24]and as reported, there is great variation in percentage of functional dyspepsia.[2,25,26]

Dominance of females seen in functional dyspepsia, was a common finding(Sattar A et al.[27]). Nkrumah et al in Saudi Arabia[20] and Khurram et al in Pakistan[21] noticed more females as compared to males in their studies, which was the gender pattern seen in our study while a study conducted at Multan by Muhammad Innayatullah et al.[22] showed more of male preponderance (50.6 % Males Vs. 49.4 % females) and the same was supportedby a study conducted at Peshawar[23]. This difference across various studies may be because of the different demographic and gender distribution of the population.

Amongst the organic group (48 cases), we observed more inflammatory lesions (35.41%) followed byDuodenal ulcers (16 patients (33.33%)), Gastric Ulcer and Hiatus Hernia (6 patients (12.5%)) each. Less common was Carcinoma Esophagus in 2 patients (4.16%) and Carcinoma Stomach(1 patient (2.08%)).

In the Inflammatory lesions, Gastritis was present in maximum number of patients i.e. 14 patients (29.17%). These observations were similar to other studies conducted by Talley NJ et al. and Fisher RS et al.[24,6] Ghamar-Chehrech ME et al.[30] also reported that Gastritis was the most common finding in patients with organic dyspepsia though the malignancy rate (10%) was also higher in their study population, this could be attributed to the fact that the smoking population in their study was higher than what was observed in our study.

In present study 27 patients (27%) were smokers out of which 12 patients (12%) and 15 patients (15%) were in the Organic Dyspepsia and Functional Dyspepsia group, respectively. It has been observed that smoking can exaggerate gastro esophageal reflux symptoms by relaxing the lower esophageal sphincter and smoking has also been known to cause damage to gastric mucosa.[28,29]Ghamar-Chehrech ME et al[30]reported the prevalence of smoking in 55 % of the patients with

dyspepsia which was relatively higher when compared with our study.

Conclusion: Majority of the patients (52%) revealed no significant cause for the dyspepsia, however organic dyspepsia (48%) was present in a sizeable group of patients, thereby implying the active need to investigate patients with UGI endoscopy that are not responding well to treatment or who show alarm symptoms. Organic dyspepsia was more common in the males, therefore gender differences should also be kept in mind while coming across patients of dyspepsia.

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