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A STUDY OF UPPER GASTROINTESTINAL (GI) ENDOSCOPY IN PATIENTS OF DYSPEPSIA IN A RURAL SETUP

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ABSTRACT

Aim:- To study the cause of dyspepsia by doing open-access Upper GI Endoscopy.

Materials and methods: - 154 patients and 150 controls were studied in a six months period. Patient who presented with dyspepsia were subjected to open-access upper GI endoscopy. The procedure and the risks involved were properly explained to the patients and their relatives.

Results:- We found that dyspepsia as a symptom is found in all age ranges. Dyspepsia is more common in women. On doing upper GI endoscopy, we found that, NUD was the most common cause of dyspepsia. NUD was present in 73.38 % (113) patients presenting with the symptoms of dyspepsia. This was highly significant finding in comparision to the controls as indicatd by the highly significant p-value of < 0.01. The next common finding was gastro-esophageal reflux disease (GERD), which was also highly significant.

Conclusion:- Dyspepsia has a wide range of causes ranging famous NUD to GERD to PUD to malignancy. This needs to be evaluated by doing open access endoscopy. NUD is one of the most common cause for dyspepsia.

KEYWORDS

Introduction :-

Dyspepsia is a chronic or recurrent burning discomfort or pain in the upper abdomen. It may be caused by disease processes such as gastroesophageal reflux disease (GERD), peptic ulcer disease (PUD) and non-ulcer dyspepsia (NUD) (heterogeneous category that includes disorders of motility, sensation and somatization). Gastric and esophageal malignancies are less common causes of dyspepsia. Careful history taking allows accurate differential diagnosis of dyspepsia in only about half of the patients. In the remainder, endoscopy can be useful diagnostic tool, especially in patients whose symptoms are not resolved by an empirical trial of symptomatic treatment.[1,2] Endoscopy should be performed at the outset in patients with alarming features along with dyspepsia like weight loss or iron deficiency anemia, water brash and substantial heart burn, and classic symptoms of GERD. Endoscopy is a sensitive test for diagnosis of esophagitis but will miss non-erosive reflux disease. Endoscopy is indicated in patients with reflux symptoms refractory to antisecretory therapy in those with alarm symptoms such as dysphagia, weight loss or gastrointestinal bleeding and in those with recurrent dyspepsia after treatment that is not clearly due to reflux on clinical grounds alone. Endoscopy should be considered in patients with long-standing (> 10 years) GERD because they have a six fold increased risk of harbouring Barret's esophagus compared to a patient with < 1 year of reflux symptoms.[3]

Peptic ulcer causes epigastric gnawing or burning, often occurring nocturnally and promptly relieved by food or antacids. Patients with alarm symptoms and those with persistent symptoms despite treatment should undergo endoscopy to exclude gastric malignancy and other etiologies.[4]

Non-ulcer dyspepsia may be associated with bloating and does not remit and recur. Endoscopy is useful for exluding the other diagnosis. Also known as functional dyspepsia or essential dyspepsia. Many of these patients respond to H.pylori treatment.[5]

Current flexible endoscopes provide an electronic video image generated by a change- coupled device in the tip of the endoscope. Operator controls and permits deflection of the endoscope tip to the area of interest.

Upper G.I. endoscopy, also referred to as esophagogastroduodenoscopy (EGD) is performed by passing a flexible endoscope through the month into the esophagus, stomach and duodenum.

The procedure is the best method for examining the upper gastrointestinal mucosa. EGD is superior for the detection of gastric ulcers and flat muscosal lesions such as Barrett's esophagus and it permits directed biopsy and endoscopic therapy. It can be performed in intravenous conscious sedation or with topical pharyngeal anaesthesia. Patient tolerance of unsedated EGD is improved by the use of an ultrathin 5mm diameter endoscope that can be passed transorally or transnasally.

Medications used during conscious sedation may cause respiratory depression or allergic reactions. All endoscopic procedures carry some risk of bleeding and gastrointestinal perforation. The risk is small with diagnostic upper GI endoscopy and colonoscopy. Bleeding and perforation are rare adverse events with flexible sigmoidoscopy. Infectious complications are uncommon with most endoscopic procedures. Some procedures carry a higher incidence of postprocedure bacteraemia and prophylactic antibiotics may be indicated.[6]

The usual indications for an elective upper GI endoscope include dyspepsia, GERD, peptic ulcer, non-ulcer dyspepsia, dysphagia, treatment of malignancies, anemia & occult blood in the stool. Direct scheduling of endoscopic procedures by primary care physicians without preceding gastroenterology consultation, or open-access endoscopy, is common. When the indications for endoscopy are clear-cut and appropriate, the procedural risks are low, and the patient understands, what to expect, open access endoscopy streamlines the patient care and decreases the costs.

Patients referred for open-access endoscopy should have a recent history, physical examination and medication review. Patients with unstable cardiovascular or respiratory conditions should not be referred directly for open-access endoscopy. Prophylactic antibiotics should be prescribed prior to endoscopy in certain conditions. Patients taking anticoagulants and/or antiplatelet drugs may require adjustment of these agents before endoscopy.

Common indications for open-access EGD include dyspepsia resistant to a trial of appropriate therapy; dysphagia; GI bleeding; and persistent anorexia or early satiety.[6]

AIMS & OBJECTIVES

To study the cause of dyspepsia in patients by doing open-access upper GI endoscopy.

Inclusion Criteria :-

All the patients attending the Medicine OPD and admitted to the

Medicine wards and complaining of dyspepsia were subjected to upper GI Endoscopy (EGD).

Exclusion Criteria :-

All paients who had previous cardiac problem, patients on anticoagulants, patients on antiplatelets agents were excluded from the study. Patients with liver function derangements were excluded from the study.

Materials and methods :-

This was a case-control study done at SGT Medical College & Research Institute, Budhera, Gurgaon in the department of medicine. The study period was from 1st May 2014 to 31st October 2014. Approval for the study was taken from the Institutional Ethics Committee.

Data was collected of the patients who attended the OPD and were admitted in the wards of Medicine department in SGT Medical college, Budhera, Gurgaon. Demographic details and pre-existing medical problems were enquired into.

Patients with complaints of dyspepsia were sent for open-access endoscopy of the upper GIT with proper preparation.

Data regarding the history of any previous cardiac problems, patients on anticoagulation or antiplatelets and liver function tests were collected from the patient records for the exclusion criteria. Patients having positive findings regarding to these were excluded from the study.

210 patients were evaluated for the inclusion and exclusion criteria. Out of the 210 patients, 154 patients were included in the study as they met the inclusion criteria. 56 patients were excluded from the study as they had co-morbidities as per the exclusion criteria. 150 controls were taken in the study who did not have dyspepsia.Written consent regarding the willingness to undergo the upper GI endoscopy was taken. The need for the procedure, the outcome and the risk involved in the procedure were explained to the patients.

After having understood the procedure and the risks involved, all the 154 patients and 150 controls agreed to participate in the study and a written consent was taken. The enrolled patients were of ages ranging from 19yrs to 55 yrs. Both males and females were included in the study.

Table 1:- Table of the demographic profiles of the patients of dyspepsia

Age Group (years)	Number of cases	%
19-30	20	12.99
31-40	66	42.86
41-50	50	32.47
51-55	18	11.68

Table 2:- Table of demographic profiles of controls

Age Group (years)	Number of controls	%
19-30	22	14.67
31-40	64	42.67
41-50	48	32.00
51-55	16	10.67

Table 3:- Sex distribution of the cases of dyspepsia

Gender	Number of cases	%
Males	62	40.26
Females	92	59.74

Table 4:- Sex distribution of the controls

Gender	Number of cases	%
Males	58	38.67
Females	92	61.33

Table 5:- Results of Upper GI Endoscopy

Diagnosis on upper GI Endoscopy	Number of cases	%	Number of controls	%	p-value
GERD	38	24.68	3	0.02	< 0.01
Peptic Ulcer Disease	2	01.30	0	0	> 0.05
Non Ulcer Dyspepsia	113	73.38	2	0.01	< 0.001
Malignancy	1	00.64	0	0	> 0.05

Discussion :-

The present our study showed that patients presented in a wide age range with the symptoms of dyspepsia. The patients presented in the age groups ranging from 19 yrs to 55 yrs. Dyspepsia as a symptom occurred most commonly in the age range of between 31-40 yrs age group, which constituted 42.86% (66) of the cases. The next age range to comprise maximum number of cases was that that between 41 to 50 yrs age group which comprised of 32.47%(50) of the cases presenting with dyspepsia.This showed that dyspepsia as a symptom was most common in the middle ages.

Differentiating the patients on the basis of their sex showed that dyspepsia as a symptom was more common in females with 59.74%(62) of the cases being females and the remaining 40.26% (62) of the cases being males. This was in accordance with the earlier studies.[6]

Open-access upper GI Endoscopy done in the patients revealed various causes of dyspepsia in these patients. Non-ulcer dyspepsia was the most common cause found on endoscopy for dyspepsia in these patients.

73.38%(113) patients were found to have non-ulcer dyspepsia on upper GI Endoscopy. This was as in the previous studies. This was highly significant finding as compared to the controls as shown by the highly significant p-value ($p < 0.01$). The next common cause for dyspepsia was found to be due to GERD. This was found to be cause for despepsia in 24.68% (38) patients on endoscopy. This finding was highly significant.

None-the-less, certain less commoner causes for dyspepsia were also found. These included peptic culcer disease which was found in 1.3% (22) of the cases and malignancy in 0.64%(1) of the cases.

These findings showed that no age is spared by dyspepsia, even though it is found to be more in the middle aged patients.

It also showed that females are more prone for dyspepsia, and amongst the various causes of dyspepsia, non-ulcer dyspepsia was the most common cause.

Conclusion :-

Open access upper GI endoscopy is an important modality for investigating the cause of dyspepsia in patients of all ages. Females have been seen to have dyspepsia more commonly and NUD is the most common cause of dyspepsia.

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