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Original article

ENDOSCOPIC FINDINGS IN DYSPEPSIA PATIENTS AT A RURAL HOSPITAL- A RETROSPECTIVE STUDY.

Sanatan Behera*, Arupam Mahapatro

Department of Hepatology, SCB Medical College Hospital, Cuttack, Odisha, India.

Abstract

Background :

Dyspepsia is a prevalent problem in India and around the world. Of the stomach and oesophagus, benign causes predominate, with occasional incidences of carcinoma. The presence of warning signs helps to indicate the presence of these carcinomas, though the utility of these warning signs has been questioned by various studies.

Methods :

Patients presenting with dyspepsia were examined with a gastroscope to determine the Cuttack region's etiological pattern and the utility of warning signs. This investigation included the first 100 patients at our institution to undergo upper gastrointestinal endoscopy for dyspepsia evaluation.

Results:

Despite exhibiting symptoms indicative of functional dyspepsia, the majority of patients (53%) exhibited unremarkable findings on visual examination. The most prevalent warning sign was weight loss, which had only a 4% predictive value. 10% of the patients had Malena, with a 30% positive predictive value.

Conclusion :

Significant weight loss as a warning sign to screen patients for gastrointestinal pathology appears inappropriate in rural settings.

Keywords: dyspepsia, gastroscope, karnali, warning sign, Submitted: 2023-06-25 Accepted: 2023-06-28

1. Introduction:

Dyspepsia can be defined simply as recurrent or persistent abdominal pain or discomfort that is preferable to the upper gastrointestinal tract. It accounts for a significant proportion of medical OPD visits at our institution. Studies reveal that the proportion of OPD visits in other institutions is comparable [1, 2]. Once the decision to investigate has been made, endoscopy is the preferred diagnostic procedure [3]. Patients with new-onset dyspepsia between the ages of 45 and 55 and those exhibiting signs of structural disease should undergo initial endoscopy [4-7]. In all but one of the 15 meta-analyses evaluating more than 57,000 patients with dyspepsia, alarm symptoms demonstrated a positive predictive value for GI cancer of less than 11% [8]. Due to the low prevalence of GI cancer, the negative predictive value of a lack of alarm symptoms was significantly higher than 97%. One-fourth of cancer patients with dyspepsia do not report any alarm symptoms [9].

Systematic inquiry for the existence of alarm symptoms (such as inexplicable weight loss, recurrent emesis, gradual difficulty in swallowing,

* Corresponding author.
Email address: dr.sanatan@yahoo.com (Sanatan Behera)

painful swallowing, gastrointestinal haemorrhage, and family history of upper gastrointestinal malignancy) is crucial. Nevertheless, the existence of alarm symptoms may suggest progressed ailment and, as a result, restricted therapeutic alternatives [10, 11]. Although malignancy of the upper gastrointestinal (UGI) tract is typically identified at an advanced stage upon diagnosis, maintaining a low level of suspicion for gastric neoplasms may lead to earlier detection and enhanced survival rates. However, malignancy constitutes a mere 1-2% of diagnoses pertaining to the upper gastrointestinal (UGI) tract, and its incidence is even lower in patients below the age of 50 years [12].

A majority of the patients exhibiting dyspepsia manifest no discernible aetiology for their symptoms. Merely 20% of the patients exhibit noteworthy gastroduodenal lesions, such as peptic ulcer. Functional dyspepsia is a medical condition that is characterised by upper gastrointestinal symptoms in patients [13-18]. Despite undergoing various diagnostic investigations, no organic cause has been identified for their symptoms. As a result, these patients are classified as having functional dyspepsia [19]. This study aimed to evaluate endoscopic findings in dyspepsia patients.

2. Methods:

This retrospective study was conducted at the SCB Medical College Hospital, Cuttack, Odisha, India to analyse the clinical presentation and diagnostic outcomes of the first 100 patients with dyspepsia who underwent upper gastrointestinal endoscopy. The study gathered pertinent medical information such as patient identification, age, and gender, as well as the date of the procedure, duration of dyspepsia, presence of warning signs, and endoscopic observations. In this context, dyspepsia shall be characterised as either sporadic or chronic abdominal distress or unease that can be attributed to the upper gastrointestinal region. The term "significant weight loss" is operationally defined as a reduction in body weight exceeding 10% within a timeframe of six months or a documented history of previously well-fitting attire becoming loose. The inclusion criteria pertain to individuals who have undergone an upper gastrointestinal tract endoscopy for the purpose of evaluating dyspepsia.

3. Results:

Over the course of four months, 100 patients underwent upper gastrointestinal endoscopy for dyspepsia evaluation. Significant weight loss is the most prevalent warning sign among our patient population. Patients who undergo endoscopy to evaluate dyspepsia despite the absence of warning signs constitute a sizeable proportion of the patient population (Table 1).

It appears that the preponderance of our patients exhibits normal findings. One of our patients exhibited an esophageal mass. Two instances of esophagitis and one case of esophageal ulcer were identified (Table 1).

Significant weight loss- total of 25, with 24 normal and 1 with multiple body and antrum ulcers Forrest grade III 7 were normal, 1 had duodenitis, 1 had multiple duodenal ulcers, and 1 had a gastric ulcer. Hematemesis- total 2, including both Mallory Weiss tears Anaemia- total 1 (Normal) Total of 4 cases of dysphagia, with 1 esophageal mass, 1 esophageal ulcer, and 2 Esophagitis (Table 2).

Consequently, the positive predictive value is 1/25 = 0.04 or 4%, the negative predictive value is 29/75 = 0.38 or 38%, the sensitivity is 1/1 + 29 = 0.033 or 3%, and the specificity is 29/24 + 29 = 0.54 or 54% (Table 2). Therefore, the positive predictive value is 0.3 or 30%, the negative predictive value is 0.5 or 50%, the sensitivity is 0.061 or 6%, and the specificity is 0.86 or 86%.

4. Discussion:

Endoscopic evaluation of dyspepsia without warning symptoms appears to constitute a significant proportion of evaluated patients. The persistence or recurrence of dyspepsia despite prior therapy with proton pump inhibitors appears to play a significant role in patients' determination to undergo this procedure. Patients with a history of antral gastritis and duodenal ulcers were

Table 1: **Warning features and endoscopic ftndings**

Warning features	
Significant weight loss-	25/100
Malena-	10/100
Hematemesis-	2/100
Anemia-	1/100
Abdominal mass-	0/50
Dysphagia-	4/100
Absent warning features-	8/100
Endoscopic Findings	
Normal	53/100
Antral gastritis	11/100
Fundal gastritis	2/100
Duodenitis	10/100
Gastric ulcer	4/100
Duodenal ulcer	4/100
Mallory Weiss tear	3/100
Pangastritis	10/100
Varies	1/100
Hiatus	3/100
Esophageal pathology	4/100

Table 2: **Positive and negative predictive value for signiftcant weight loss and malena for GIT pathology**

Weight loss			
	Disease present	Disease absent	Total
Weight loss present	1	24	25
Weight loss absent	46	29	75
Total	47	53	
Malena			
	Disease present	Disease absent	Total
Malena present	3	7	10
Malena absent	44	46	90
Total	47	53	

among those who underwent endoscopic examinations despite the absence of warning symptoms.

Consistent with the findings of other studies, normal endoscopic findings appear to be the most frequent finding among patients undergoing endoscopy [20, 21, 22]. In our study, the percentage of normal endoscopic findings is significantly higher. Possible cause could be the increased proportion of patients presenting without warning signs. As a consequence of the introduction of endoscopic services in this region, a significant number of patients with probable anxiety disorders continue to undergo the procedure, with some imitating the procedure's warning signs.

Significant weight loss is the most frequent symptom. Only one of the 25 patients with weight loss had a pathology with a very low positive predictive value. It was a case of gastric ulcer for which there was no evidence of cancer on biopsy. This population may have a higher incidence of

helminthic infestation and other infectious causes of chronic diarrhoea, such as giardiasis, which may contribute to significant weight loss.

Dysphagia and hematemesis appear to be the most reliable indicators of a gastrointestinal pathology among the warning signs. Malena was present in ten patients, but only three of our patients had upper git pathology, indicating a 50% positive predictive value. We were unable to evaluate below the level of the second portion of the duodenum because a double balloon enteroscope was unavailable. Only two of the biopsies collected were returned for histopathological examination. The remainder were lost to follow-up, so we were unable to determine the presence of carcinoma. Thus, weight loss should not be considered a warning sign or, at the very least, as a sole criterion for screening gastroscopy.

5. Conclusion:

Our study found that the prevalence of anomalous endoscopic findings was high in subjects of all ages and nationalities presenting with dyspepsia. Gastritis was the most frequently observed endoscopic finding, followed by oesophagitis. Epigastric pain and heartburn were the most prevalent presenting symptoms.

6. Limitations:

Owing to the unfeasibility of histopathological assessment, biopsies may not be obtained in all instances. The absence of biopsy sampling in all individuals may result in the failure to detect histologic gastritis and Helicobacter pylori infection.

7. Recommendation:

Endoscopy is recommended for low-risk patients whose symptoms persist despite initial non-invasive treatment.

8. Acknowledgement:

None

9. List of abbreviations

GI- Gastrointestinal
UGI- Upper gastrointestinal

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Author biography

Sanatan Behera Assistant Professor, Department of Hepatology, SCB Medical College Hospital, Cuttack, Odisha, India.

Arupam Mahapatro DM Resident (Academic), Department of Hepatology, SCB Medical College Hospital, Cuttack, Odisha, India.