A Retrospective Study of Endoscopic Findings in Patients Presenting with Dyspepsia in a Rural Teaching Hospital

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ABSTRACT

Introduction: Dyspepsia is a common problem faced in our country and elsewhere. Benign causes predominate with occasional incidences of carcinoma of the stomach, esophagus. The presence of warning signs helps indicate the presence of such carcinomas though various studies differ as to its usefulness.

Methods: Patients presenting with dyspepsia were investigated with a gastroscope to see the etiological pattern seen in the Karnali region and the usefulness of the warning signs. This study included the initial 100 patients undergoing upper gastrointestinal endoscopy for dyspepsia evaluation in our institution.

Results: The majority of the patients (53%) showed normal findings on visual examination despite being symptomatic suggestive of functional dyspepsia. The most common warning sign was weight loss which had a positive predictive value of only 4%. Malena was present in 10% of the patients with a positive predictive value of 30%

Conclusions: Significant weight loss as a warning sign to screen patients for gastrointestinal pathology seems unsuitable in the rural setting.

Keywords: *dyspepsia, gastroscope, karnali, warning sign*

INTRODUCTION

Dyspepsia can be simply put as episodic or persistent symptoms that include abdominal pain or discomfort and which are referable to the upper gastrointestinal tract.[1] It forms a large portion of the medical OPD visits in our institution. Studies show similar proportion of OPD visits in other institutions.[2]

Once the decision has been made to investigate, the diagnostic test of choice is endoscopy.[3] Patients with new onset dyspepsia after 45 to 55 years of age and those with features that suggest structural disease are advised to undergo initial endoscopy.[4-7] In a meta-analysis of 15 studies evaluating more than 57,000 patients with dyspepsia, alarm symptoms showed a positive predictive value for GI cancer of less than 11% in all but 1 of these studies.[8] The negative predictive value of an absence of alarm symptoms was much better at more than 97% due to the low prevalence of GI cancer. One-fourth of patients with malignancy and dyspepsia do not report alarm symptoms.[9]

Directed questioning for the presence of alarm symptoms (e.g., unexplained weight loss, recurrent vomiting, progressive dysphagia, odynophagia, gastrointestinal blood loss and family history of upper gastrointestinal cancer) is important; however, the presence of alarm symptoms may indicate advanced disease and thus limited treatment options.[10, 11] Though cancer of the UGI tract is usually advanced at the time of diagnosis, a low threshold of suspicion for gastric malignancy may result in earlier diagnosis and improved survival. However cancer accounts for only 1–2% of diagnoses at UGI tract and less in patients under the age of 50 years.[12]

More than half of these patients presenting with dyspepsia have no detectable cause for their symptoms and only 20% of patients have significant gastroduodenal lesions, such as peptic ulcer.[13-18] Patients in whom investigations have revealed no organic cause are classified as having functional dyspepsia.[19]

METHODS

This was a retrospective study carried out at Karnali Academy of Health Sciences to include the initial 100 patients presenting with dyspepsia undergoing diagnostic upper gastrointestinal endoscopy. Data was collected to include name, age, and sex, date of procedure, dyspepsia duration, warning signs, and endoscopic findings Dyspepsia will be defined here as episodic or persistent abdominal pain or discomfort which is referable to the upper gastrointestinal tract. Significant weight loss has been defined here as loss of greater than 10% body weight over a period of 6 months or history of previously fitting clothes becoming loose. Inclusion criteria are cases who underwent upper gastrointestinal tract endoscopy for dyspepsia evaluation.

Limitations of the study

Due to the unavailability of histopathological evaluation biopsy will not be taken in all cases. The lack of biopsy sampling in all patients can lead to us missing histologic gastritis as well as Helicobacter pylori infection.

RESULTS

A total of 100 patients underwent upper gastrointestinal endoscopy for evaluation of dyspepsia in a period of 4 months.

Table 1. Warning features

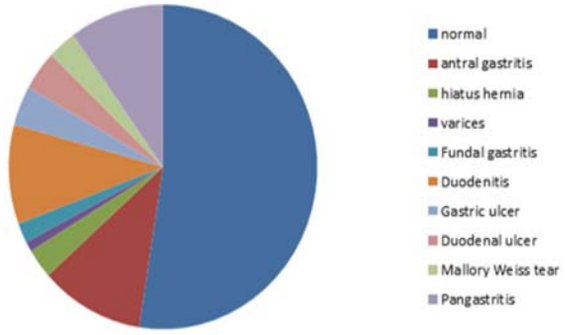
Significant weight loss-	25/100
Malena-	10/100
Hematemesis-	2/100
Anemia-	1/100
Abdominal mass-	0/50
Dysphagia-	4/100
Absent warning features-	8/100

Significant weight loss is the most common warning feature seen amongst our patient group. Endoscopy for dyspepsia evaluation despite absence of warning features also forms a significant proportion of the patients.

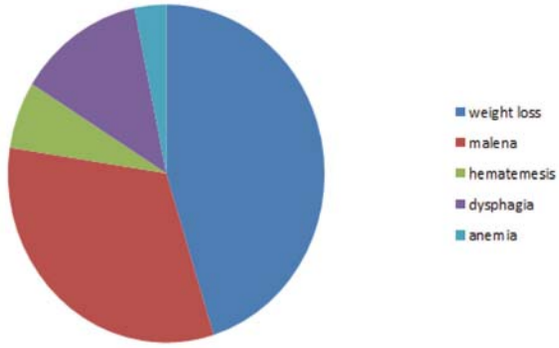
Table 2. Endoscopic findings

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

Normal findings seem to be present in the majority of our patients. Esophageal mass was seen in one of our patients. There were 2 cases of esophagitis and 1 case of esophageal ulcer.



Pie chart showing findings present in the majority of our patient group.



Pie chart showing the proportion of warning features-

Correlation of warning sign with positive findings-

Significant weight loss- total 25 of which 24 normal, 1 multiple ulcers in body and antrum Forrest grade III
Malena- total 10 of which 7 normal, 1 duodenitis, 1 multiple duodenal ulcer, 1 gastric ulcer
Hematemesis- total 2 with both Mallory Weiss tear

Anemia- total 1-Normal
Dysphagia- total 4 with 1 esophageal mass, 1 esophageal ulcer, 2 Esophagitis

Table 3. Positive and negative predictive value for significant weight loss for GIT pathology-

	Disease present	Disease absent	Total
Wt loss present	1	24	25
Wt loss absent	46	29	75
Total	47	53	

Hence, positive predictive value- 1/25= 0.04 or 4%, negative predictive value- 29/75= 0.38 or 38%, sensitivity- 1/1+29= 0.033 or 3%, specificity- 29/24+29= 0.54 or 54%

Table 4. Positive and negative predictive value for malena for GIT pathology-

	Disease present	Disease absent	Total
Malena present	3	7	10
Malena absent	44	46	90
Total	47	53	

Hence, positive predictive value- 3/10=0.3 or 30%, negative predictive value- 46/92= 0.5 or 50%, sensitivity- 3/3+46= 0.061 or 6%, specificity- 46/46+7= 0.86 or 86%

DISCUSSION

Endoscopic evaluation of dyspepsia without warning features seem to form a significant proportion of the patients evaluated. The persistence and/or recurrence of dyspepsia despite prior proton pump inhibitor therapy seems to play a major role in patients insisting on this procedure. Some of the patients who have undergone the endoscopic evaluation despite absent warning features were those with prior history of antral gastritis and duodenal ulcers.

Normal endoscopic finding seems to be the most common finding amongst patients undergoing endoscopy which is consistent with findings as seen in other studies.[20, 21, 22] The percentage of normal finding on endoscopy in our study is however much higher. Possible factor could be the higher proportion of patients presenting with absent warning features. The introduction of endoscopic services in this region has resulted in a large number of patients of probable anxiety disorder insisting on the procedure with some mimicking the warning features.

Significant weight loss is the most common warning feature. Only one case amongst the 25 weight loss patients showed a pathology showing a very low positive predictive value. It was a case of gastric ulcer whose biopsy did not show carcinoma. Significant weight loss could be a result of the higher incidence of helminthic infestation and other infective etiologies of chronic diarrhea like giardiasis amongst this population.

Amongst the warning signs, dysphagia and hematemesis seems to be the most reliable indicator of a gastrointestinal pathology. Malena was present in 10 patients with only 3 of our patients showing some upper git pathology showing a positive predictive value of 50%. We were unable to evaluate below the level of the second part of the duodenum due to unavailability of double balloon enteroscope. Amongst the biopsy taken only 2 returned with their histopathological examination. The rest were lost to follow up so we were unable to determine if carcinoma was present.

CONCLUSIONS

Weight loss should be excluded as one of the warning feature or at the very least, not be taken alone as a criteria for screening gastroscopy.

Conflict of Interest: None

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