



Single-Center Review of Appropriateness and Utilization of Upper GI-Endoscopy in Dyspepsia: A Retrospective Study

Kalpna Acharya^a, Neeraj Dhar^a and Syed Mushfiq Shafi^{a++*}

^a Amandeep Hospital, India.

Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/91083>

Original Research Article

Received: 02/04/2023

Accepted: 03/06/2023

Published: 15/06/2023

ABSTRACT

Introduction: Upper GI Endoscopy is one among the most commonest tool used by gastroenterologists to define the etiology of dyspepsia. Is this the final decree for all dyspeptic patients or we have to change our decisions as per the resource available? This study tried to look over the appropriateness and utilization of endoscopy in a tertiary care hospital.

Aim of Study: This study aimed to define the endoscopic findings in dyspepsia patients and to catch site of the appropriate utilisation of a resource which can be easily available in tertiary care setting.

Materials and Methods: We used administrative data to identify 103 patients who were full filling ROME III criteria for dyspepsia aged ≥ 18 years who were subjected to Endoscopy. These Patients had attended outpatient department of Medical Gastroenterology and were subjected for UGI endoscopy.

Results: 103 dyspeptic patients were taken in our study. Among them sixty seven were males and thirty six were females. Majority were in the age group of 20- 40yrs (n= 38). Thirty six were in age

⁺⁺ Consultant;

*Corresponding author: E-mail: syedmushfiq37@gmail.com;

group of 40-60 yrs and twenty nine were in the age group of > 60 yrs. significant endoscopy findings were seen in 79% of patients, while as normal endoscopy or no endoscopic findings were seen in 21% of patients. Majority of patients (n = 55) had Erosive Gastritis on endoscopy which were treated tested for H Pylori testings and were treated accordingly.

Conclusion: These data suggests adequate appropriate use of current recommendations for endoscopy in the evaluation of dyspepsia patients has been applied to our patient cohort.

Keywords: Endoscopy; dyspepsia; gastritis.

1. INTRODUCTION

The term dyspepsia is used variably by health professionals to refer to a heterogeneous group of upper abdominal symptoms that may arise from numerous causes. Patients seldom use the term dyspepsia and describe their abdominal symptoms instead in terms of discomfort, pain, bloating, fullness, burning, or indigestion [1-4]. The way a patient perceives and reports these symptoms is dependent upon a complex interplay of biologic variables, personality traits, social support mechanisms, coping strategies, culture and language [5-8]. Dyspepsia is a common symptom in the community and more than one third experience the problem of indigestion in 6 months. Gastrointestinal (GI) disorders account for about 10% of all consultation with general practitioner and about half of them have dyspepsia. Despite the substantial decline in the prevalence of peptic ulceration over the past 20 years, the incidence of dyspepsia has remained constant. It poses a diagnostic & therapeutic challenge to the clinician. During the past two decades, the number of upper gastrointestinal endoscopy (UGIE) being performed has increased. This has resulted in long waiting list in many centers. The introduction of increasingly complex technologies in health sector makes it necessary to evaluate the procedures not only in terms of efficacy and cost, but also with

regards to the appropriation of the procedure in clinical setting. The British society has laid guidelines for an early endoscopy in dyspeptic patients with alarm symptoms and for those above the age of 45 [9-11]. Open access endoscopy is being currently resulting in high workload in endoscopy suite. There are no standard guidelines for performing UGI endoscopy in our population.

2. MATERIALS AND METHODS

This retrospective study was conducted at an independent, integrated health system in Pathankot, Punjab, serving a diverse population. For the purpose of the study, we used administrative data to identify 103 patients aged ≥ 18 years who were subjected to Endoscopy. These Patients had attended outpatient department of Medical Gastroenterology with dyspepsia and were subjected for UGI endoscopy, after a thorough clinical examination and recording of clinical details in a structured Data Base. All patients underwent EGD from June 2021 to June 2022. Patients were included if the primary indication for undergoing the EGD was dyspepsia, as defined by Rome III criteria. Rome III criteria defines dyspepsia as one or more of the following three symptoms for 3 months within the first 6 months of symptom onset: Postprandial fullness, early satiety and epigastric pain or burning.

Total number of patients seen in our OPD (N=1235)

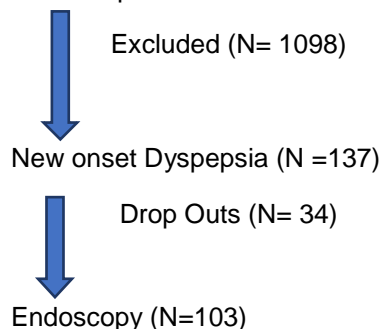


Chart 1. Study protocol

2.1 Exclusion Criteria

1. Retrosternal burning pain, which would suggest a more appropriate diagnosis of gastro-esophageal reflux disease (as per GERD questionnaire).
2. Progressive dysphagia and/or weight loss in the absence of epigastric pain.
3. Jaundice or history of pancreatic cancer.
4. Patients, in Whom Upper GI Endoscopy has been already done in past one year.

2.2 Aim of the Study

1. To determine the outcome of endoscopy among dyspeptics with and without alarm symptoms.
2. Appropriateness of indications for diagnostic UGI endoscopy in association with relevant endoscopic disease.

3. RESULTS

Results studied were:

Fig. 1: Majority of patients were males (n= 67) and females were in minority (n= 36).

Fig. 2: Age group studied were: 20 – 40 yrs (n= 38), in the age group of 40-60 (n=36) and > 65 years (n=29).

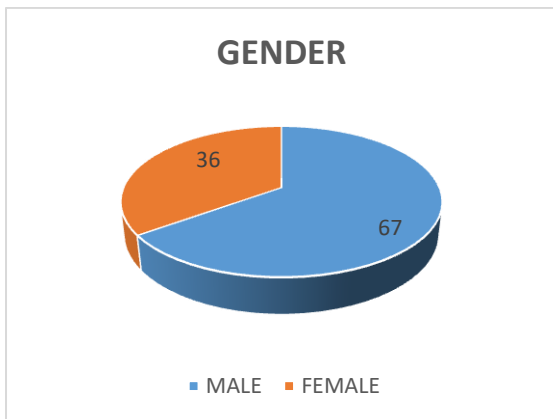


Fig. 1. Gender distribution of patients

Fig. 3: Majority of the patients (n=51) was having no comorbidities while as 52 patients were having comorbidities and they are shown in the graph.

Fig. 4: 58 Patients were having warning symptoms were as 45 patients were having no warning symptoms and signs.

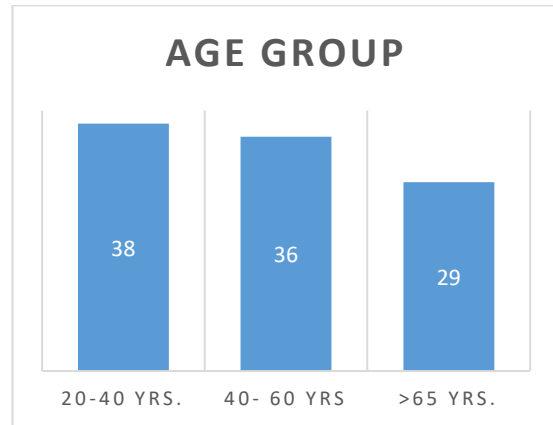


Fig. 2. Age distribution of patients

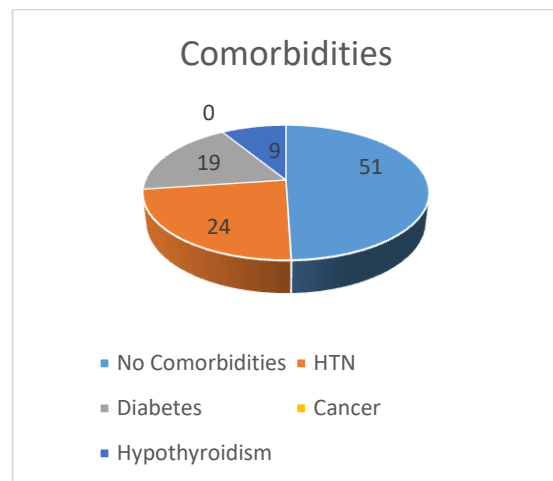


Fig. 3. Comorbidities seen in patients

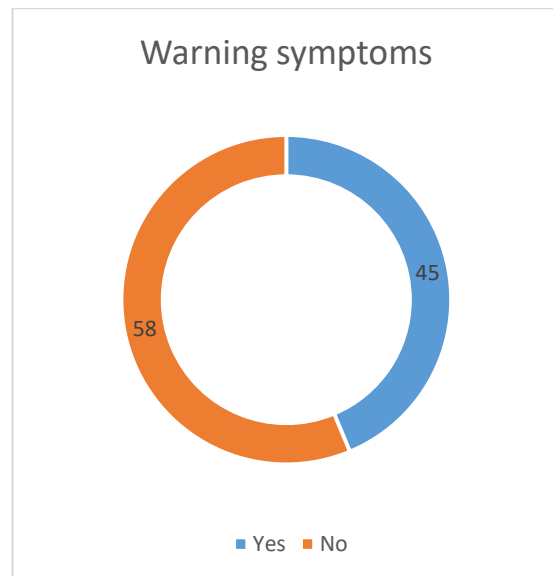


Fig. 4. Presence/absence of warning symptoms & signs in patients

Fig. 5: Shows various endoscopic findings in patients subjected to endoscopy for evaluation of dyspepsia

Fig. 6: In all dyspepsia patients with antral gastritis, Rapid Urease tests was done to screen for H Pylori status and the percentage of detection was seen approx. in 60 %.

4. DISCUSSION

Indication for endoscopy needs to be tailored according to the clinical presentation in dyspepsia. Individuals below the age of 35, in the absence of alarm symptoms can be managed with an empirical anti peptic therapy and reviewed at the end of 4 weeks. Persistence of symptoms should warrant an early endoscopy. Those with alarm symptoms which include Age > 50 years, Family history of upper GI malignancy in a first-degree relative, Unintended weight loss GI bleeding, or iron deficiency anemia, Dysphagia, Odynophagia, Persistent vomiting, Abnormal imaging suggesting organic disease require an endoscopy. On one hand, a normal endoscopy in dyspepsia cannot be readily dismissed as irrelevant. Reassurance provided by normal findings may subsequently result in symptom relief, avoidance of unnecessary treatment and decreased consultation rate. But, on the other hand as almost three quarters of

endoscopies performed were not guideline-based, so adding burden both on endoscopist as well as on Patients. So, selecting dyspeptic patients for endoscopy should be the primary concern for a gastroenterologist. In our studied Patients, minimal number of negative endoscopies were seen (N=20/103) and that too particularly in younger individuals & in those who have no alarm symptoms or signs. Further, adherence to the guidelines was lacking in testing for H. pylori, which was fairly prevalent in our population [12]. Endoscopies performed according to the guidelines were significantly more likely to show abnormal endoscopy findings. But the interesting thing was found that a good number of patients (N=12/103) who were subjected to endoscopy have portal hypertension (varices) on endoscopy. H- Pylori Infection was seen in significant number of patients (N=55/103), directing us for what is phrased as “test & treat” policy [13-15]. In those who have Rapid urease testing positive were given triple drug therapy for eradication of Helicobacter infection and most of them were symptom free after 6 weeks of therapy. We therefore, advise practitioners to adopt guidelines when evaluating patients with dyspepsia. Such practice would avoid unnecessary procedures, improve access to care and will result in an efficient utilization of Resources.

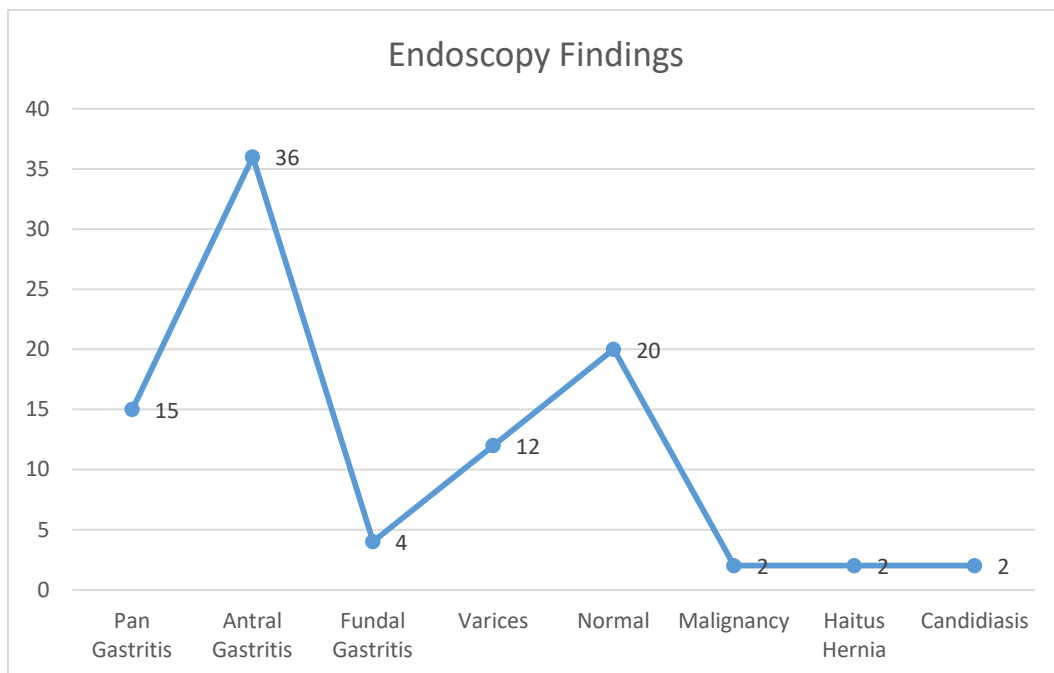


Fig. 5. Endoscopy findings in studied patients

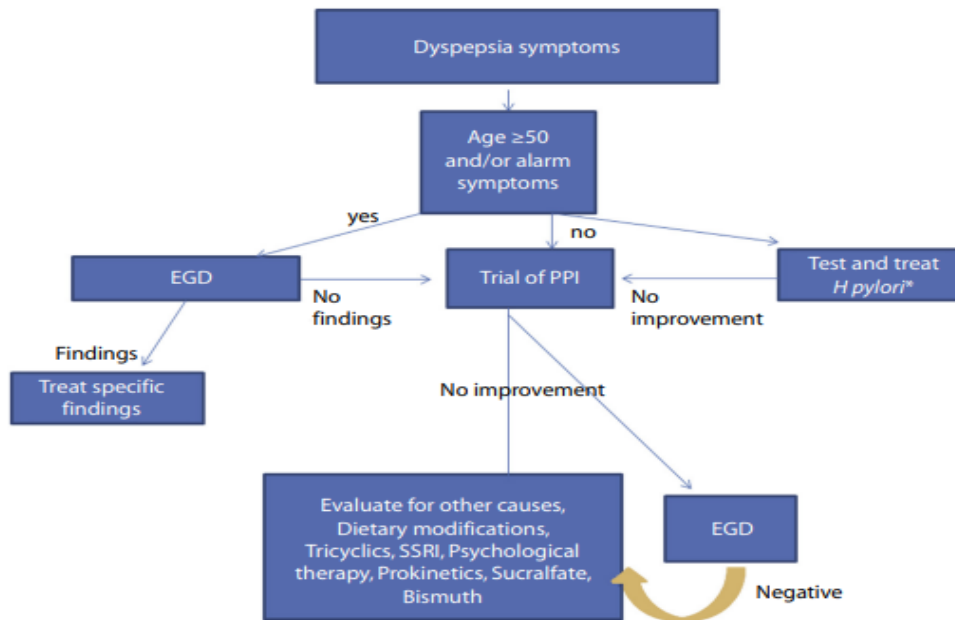


Image 1. Symptoms of dyspepsia

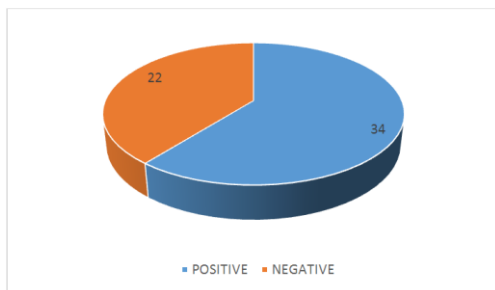


Fig. 6. Rapid urease status in patients

5. CONCLUSION

Endoscopy must be selectively used in high risk dyspeptic Patients, because of high yield to detect abnormalities. However in younger individuals or patients without warning symptoms should not be ruled out for endoscopic assessment, but threshold must be kept high.

6. RECOMMENDATIONS

1. We recommend initial endoscopy for new-onset dyspepsia in patients 50 years of age or older or those with alarm features.
2. We recommend that dyspeptic patients younger than 50 years of age and without alarm features undergo either an initial “test and treat” approach for H pylori or empiric therapy with a PPI, depending on the prevalence of H pylori infection in their population. For H pylori prevalence greater than 20%, “test and treat” is recommended.

3. We suggest that dyspeptic patients who are younger than 50 years of age, lack alarm features, and are H pylori negative may be offered a trial of PPI acid suppression.

7. LIMITATIONS

The limitations of the present study included a relatively small sample size and the small number of important endoscopic lesions that were found, resulting in a low power to detect any clinically significant differences. Secondly, we performed a retrospective analysis which may have imparted selection bias.

8. INTERPRETATIONS

A high rate of high yield and aptness of use of invasive endoscopies were performed at this center in previous one year, although low yield was seen in younger age groups, particularly those who were having no warning signs & symptoms. These data suggests adequate appropriate use of current recommendations for endoscopy in the evaluation of dyspepsia patients has been applied to our patient cohort.

CONSENT

As per international standard or university standard, patient (s) written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Holtmann G, Stanghellini V, Talley NJ. Nomenclature of dyspepsia, dyspepsia subgroups and functional dyspepsia: Clarifying the concepts. *Baillieres Clin Gastroenterol.* 1998;12:417-33.
2. Rabeneck L, Wray NP, Graham DY. Managing dyspepsia: What do we know and what do we need to know? *Am J Gastroenterol.* 1998;93:920.
3. Stanghellini V, Tosetti C, Barbara G, et al. Management of dyspeptic patients by general practitioners and specialists. *Gut* 1998;43(Suppl 1):S21-3.
4. Tack J, Talley NJ. Functional dyspepsia—symptoms, definitions and validity of the Rome III criteria. *Nat Rev Gastroenterol Hepatol.* 2013;10:134-41.
5. Aro P, Talley NJ, Agreus L, et al. Functional dyspepsia impairs quality of life in the adult population. *Aliment Pharmacol Ther.* 2011;33:1215-24.
6. El-Serag HB, Talley NJ. Health-related quality of life in functional dyspepsia. *Aliment Pharmacol Ther.* 2003;18:387-93.
7. Ford AC, Forman D, Bailey AG, et al. Initial poor quality of life and new onset of dyspepsia: Results from a longitudinal 10-year follow-up study. *Gut.* 2007;56:321-7.
8. Halder SL, Locke GR 3rd, Talley NJ et al. Impact of functional gastrointestinal disorders on health-related quality of life: A population-based case-control study. *Aliment Pharmacol Ther.* 2004;19:233-42.
9. Talley NJ. American Gastroenterological Association medical position statement: Evaluation of dyspepsia. *Gastroenterology.* 2005;129:1753-5.
10. Talley NJ, Vakil N. Guidelines for the management of dyspepsia. *Am J Gastroenterol.* 2005;100:2324-37.
11. Vakil N, Moayyedi P, Fennerty MB, et al. Limited value of alarm features in the diagnosis of upper gastrointestinal malignancy: Systematic review and meta-analysis. *Gastroenterology.* 2006;131:390-401, Quiz 659-60.
12. Murakami TT, Scranton RA, Brown HE, Harris RB, Chen Z, Musuku S, Oren E. Management of helicobacter pylori in the United States: Results from a national survey of gastroenterology physicians. *Prev Med.* 2017;100:216.
13. Ford AC, Moayyedi P, Jarbol DE, et al. Meta-analysis: *Helicobacter pylori* test and treat compared with empirical acid suppression for managing dyspepsia. *Aliment Pharmacol Ther.* 2008;28:534-44.
14. Zhao B, Zhao J, Cheng WF, et al. Efficacy of *Helicobacter pylori* eradication therapy on functional dyspepsia: A meta-analysis of randomized controlled studies with 12-month follow-up. *J Clin Gastroenterol.* 2014;48:241-7.
15. Lassen AT, Pedersen FM, Bytzer P, et al. *Helicobacter pylori* test-and-eradicate versus prompt endoscopy for management of dyspeptic patients: A randomised trial. *Lancet.* 2000;356:455-60.

© 2023 Acharya et al.; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:

The peer review history for this paper can be accessed here:

<https://www.sdiarticle5.com/review-history/91083>