

# Is Endoscopy Really Necessary in My Case? A Four Year Retrospective Study

HN DINESH<sup>1</sup>, CD JAGADISH KUMAR<sup>2</sup>, HM SANJAY<sup>3</sup>, V SACHIN<sup>4</sup>, BASAVARAJU<sup>5</sup>

## ABSTRACT

**Introduction:** About 40% of the general population report dyspepsia at some time in their life making it a fairly common disease. Uncomplicated dyspepsia refers to patients whose dyspepsia is not accompanied by alarm features or associated with NSAIDS usage.

**Aim:** To assess the need for UGI Endoscopy and find out the patterns of different endoscopic presentations in patients presenting with uncomplicated dyspepsia.

**Materials and Methods:** Our study conducted in KR Hospital,

Mysore, Department of General Surgery is a retrospective endoscopic study of 1450 patients with uncomplicated dyspepsia.

**Results:** A significant 64% of the patients presenting with uncomplicated dyspepsia were found to have findings on endoscopy. The most common age range for positive endoscopic findings was 40-50 years in our hospital. Malignancy was diagnosed in 2.5% patients.

**Conclusion:** We recommend upper GI endoscopy in patients presenting with uncomplicated dyspepsia for patients above 40 years of age in our hospital.

**Keywords:** Dyspepsia, Digestive System, UGI Cancer, Uncomplicated Dyspepsia, UGI Malignancy

## INTRODUCTION

About 40% of the general population report dyspepsia at some time in their life making it a fairly common disease [1,2].

Dyspepsia is defined as "an upper gastrointestinal symptom complex characterized by epigastric pain or discomfort and may include heartburn, acid regurgitation, excessive burping/belching, abdominal bloating, feeling of abnormal or slow digestion, early satiety or nausea" [3,4]. Currently anti-secretory treatment is started for dyspepsia and endoscopy is reserved for dyspepsia with danger signs [5].

Uncomplicated dyspepsia refers to patients whose dyspepsia is not accompanied by alarm features or associated with NSAIDS usage [5]. Alarm features for dyspepsia are anaemia, dysphagia, bleeding, recurrent vomiting, weight loss [6].

This study was conducted at KR Hospital Mysore where the patient load is high and facilities are limited. Economic and time constraints frequently raise the question whether it is justified to recommend a time consuming, expensive and invasive investigation such as UGI endoscopy for uncomplicated dyspepsia, and hence, it becomes important to scrutinize the screening process adopted for the same.

## AIM AND OBJECTIVE

To assess the need for UGI Endoscopy in patients presenting with uncomplicated untreated dyspepsia and to study the patterns of endoscopic presentations in uncomplicated dyspepsia.

## MATERIALS AND METHODS

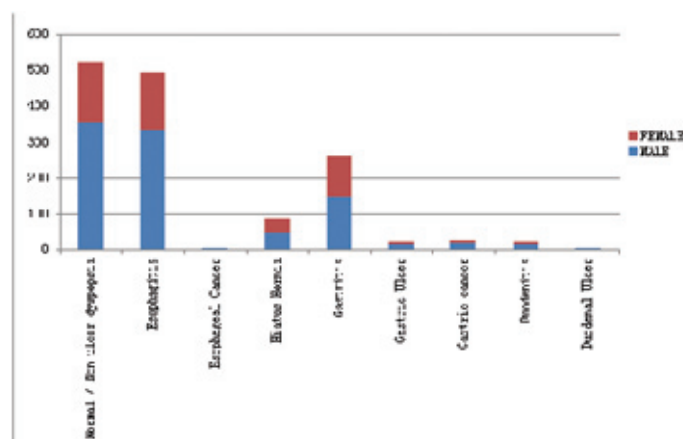
This is a retrospective endoscopic study of 1450 patients presenting with dyspepsia in KR Hospital Mysore from March 2011 to February 2014 (4 years review). The inclusion criteria contain patients older than 13 years of age with uninvestigated, uncomplicated, untreated dyspepsia for more than 4 weeks presenting to the surgical OPD at KR Hospital, Mysore, India. The exclusion criteria contain pregnant and lactating women, patients with hepato-biliary-pancreatic disease and patients who received PPI drugs/treatment for *H. Pylori*. Patients selected for the study had undergone USG abdomen to rule out hepato-biliary-pancreatic disease, and then subjected to UGI endoscopy, biopsy taken from the pathological site. Biopsy specimens were subjected to histo-pathological examination. These findings entered in the KRH endoscopy register, were analysed.

## RESULTS

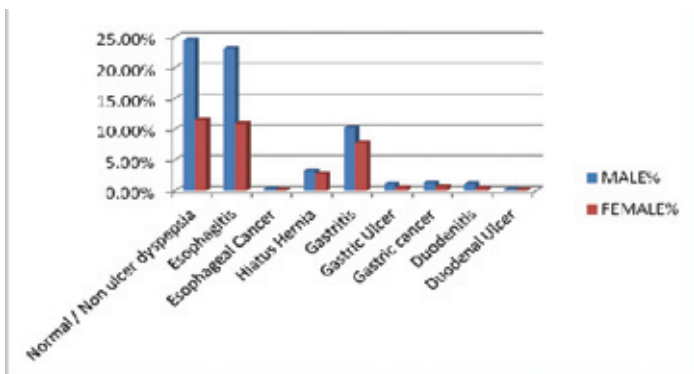
The results of our study showed that the most common presenting complaints in our population is Epigastric discomfort > Heart Burns [Table/Fig-1]. The highest prevalence of dyspepsia is seen in 40-50 year old patients. Dyspepsia is more common in Males (65.11%) than Female (34.90%) patients [Table/Fig-1-3]. Most common

S. No	Endoscopic finding	Male	Male%	Female	Female%	Total	Total%
1	Normal / Non ulcer dyspepsia	355	24.48	167	11.52	522	36
2	Esophagitis	355	23.10	158	10.90	493	34
3	Esophageal Cancer	5	0.34	2	0.14	7	0.48
4	Hiatus Hernia	47	3.24	40	2.76	87	6
5	Gastritis	148	10.21	113	7.79	261	18
6	Gastric Ulcer	15	1.04	7	0.48	22	1.52
7	Gastric cancer	19	1.31	10	0.68	29	2
8	Duodenitis	16	1.10	6	0.41	22	1.52
9	Duodenal ulcer	4	0.28	3	0.21	7	0.48
	Total	944	65.10	506	34.90	1450	100

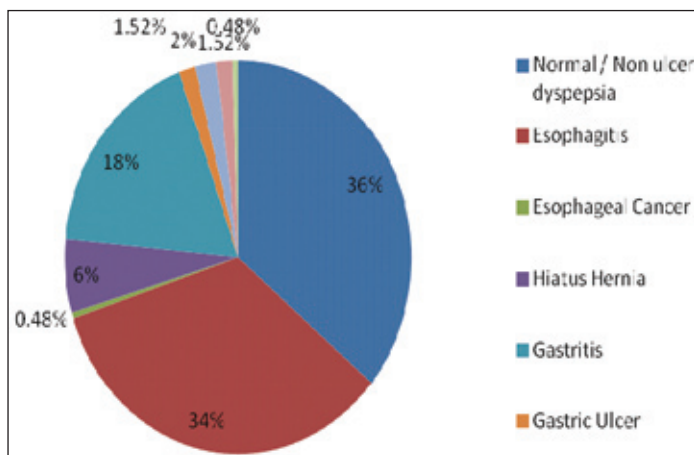
[Table/Fig-1]: Observations in our study



[Table/Fig-2]: Endoscopic findings with relative gender distribution in study population



[Table/Fig-3]: Gender specific percentage distribution of findings in study population



[Table/Fig-4]: Percentage distribution in study population

endoscopic finding is Non ulcer dyspepsia > Esophagitis > Gastritis > Cancer > Hiatus hernia [Table/Fig-1,4]. Malignancy was diagnosed in 2.5% of the patients [Table/Fig-1].

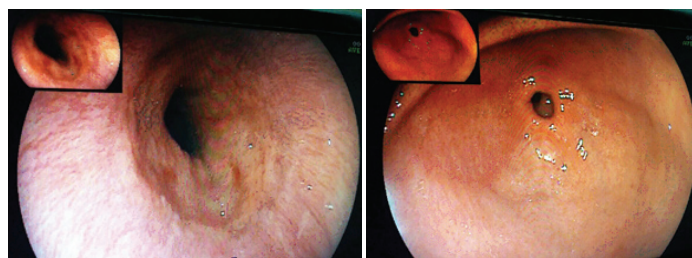
**DISCUSSION**

In our study the most common age presenting with dyspepsia was 40-50 years and the most common presentation on Endoscopy and HPE was Non Ulcer Dyspepsia [7] (36%) [8] [Table/Fig-1]. This is consistent with the presentations among the various studies conducted prior to our study [9-13]. The CADET -PE [9] study showed 42% of the study group presented with no findings on endoscopy. Sarvar et al., showed 51.7 % presented with non ulcer dyspepsia [12] [Table/Fig-5].

However, a significant 64% of the patients presenting with uncomplicated dyspepsia are found to have findings on endoscopy

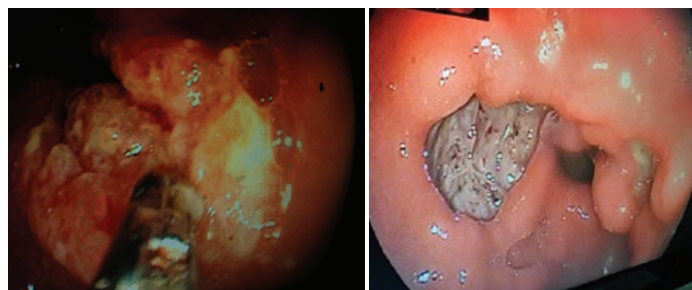
Study Name	Mean Age in years	Most common presenting symptom	Most Frequent Endoscopic findings	Cancer Incidence
Thomson ABR et al., [9]	45.6	Epigastric pain	Esophagitis(43.4%)	2%
Ziauddin [10]	42.2 +/- 15.7	Epigastric discomfort	Non Ulcer Dyspepsia ( 28%)<Duodenal ulcer (22%)<Gastritis (18%)<Esophagitis (14%)	
Choomsri P et al., [11]	41	Epigastric discomfort	Gastritis (12%)	1%
Sarwar et al., [12]	43	Epigastric pain	Non ulcer Dyspepsia (51.7%)<Esophagitis (20%)< Gastritis(13%)	3%
Khan et al., [13]		Epigastric discomfort	Non Ulcer Dyspepsia (50 %) < Esophagitis(12%) < Gastritic ulcer (10%)	
KR Hospital study	45	Epigastric discomfort	Non ulcer Dyspepsia (36%)< esophagitis(33.95 %) < Gastritis(18%)	2.5%

[Table/Fig-5]: Comparison with other studies



[Table/Fig-6]: Esophagitis

[Table/Fig-7]: Gastritis



[Table/Fig-8]: Esophageal CA

[Table/Fig-9]: Gastric CA

[Table/Fig-1]. This is significantly raised as compared to the other studies in reference, perhaps because:

- 1) Patients in this study had not been administered treatment in the form of PPI/Anti- *Helicobacter pylori*.
- 2) The spicy nature of the South Indian cuisine may be a contributor.
- 3) Most of the patients presenting at our hospital are lower to lower middle class. Irregular meals and stressful working conditions may play a role.

The next most common finding on endoscopy was esophagitis (33.95%) in our study [Table/Fig-1,6]. It's consistent with Sarvar et al., Khan et al., and Cadet P study as the second most common finding [9,12,13]. But, Ziauddin et al., have found gastritis to be the second most common finding [10]. Gastritis, however, was the third most common finding on UGI endoscopy in our study with agreeable results with Sarvar et al., and Khan et al., [12,13] [Table/Fig-1,5,7].

Thompson ABR et al., (CADET-PE), Choomsri P et al., Sarvar et al., showed Malignancy in 2%, 1% and 3% of the cases [9,11,12]. Malignancy was detected in 2.5% of the cases in our study [Table/Fig-1,5,8,9].

**CONCLUSION**

It is justified to carry out upper GI endoscopy in patients presenting with uncomplicated dyspepsia for patients above 40 years of age in our hospital as the rates of malignancy is concurrent with the findings of previous studies as mentioned above [Table/Fig-1,5].

**REFERENCES**

- [1] Tougas G, Chen Y, Hwang P, Liu MM, Eggleston A. Prevalence and impact of upper gastrointestinal symptoms in the Canadian population: findings from the DIGEST study. *Am J Gastroenterol.* 1999;94:2845-54.
- [2] Jones RH, Lydeard SE, Hobbs FD, Kenkre JE, Williams EI, Jones SJ, et al. Dyspepsia in England and Scotland. *Gut.* 1990;31:401-05.
- [3] Veldhuyzen van Zanten SJ, Flook N, Chiba N, Armstrong D, Barkun A, Bradette M, et al. An evidence-based approach to the management of patients with uninvestigated dyspepsia in the era of *Helicobacter pylori*, Canadian Dyspepsia Working Group. *Can Med Assoc J.* 2000;162(12 Suppl):S3-23.
- [4] Chiba N. Definitions of dyspepsia: time for a reappraisal. *Eur J Surg.* 1998;583(Suppl.):14-23.
- [5] Williams et al. N. Bailey and Love's Short Practice of Surgery. 20<sup>th</sup> ed. London: CRC Press; 2013. Pg 200.
- [6] Sign.ac.uk. Guideline 68: Dyspepsia [Internet]. 2015 [cited 25 February 2015]. Available from: <http://www.sign.ac.uk/guidelines/fulltext/68/section3.html>
- [7] Brunnicardi, et al. F. Schwartz's Principles of Surgery. 10th ed. New York: McGraw Hill; 2015; Pg 1050.
- [8] Arora A. Nonulcer dyspepsia: From the Editors: Mayo Clinic Health Letter [Internet]. Healthletter.mayoclinic.com. 2015 [cited 25 February 2015]. Available

from:<http://www.healthletter.mayoclinic.com/editorial/editorial.cfm/i/497/t/nonulcer%20dyspepsia>.

- [9] Thomson ABR, Barkun AN, Armstrong D, Chiba N, White RJ, Daniels S, et al. The prevalence of clinically significant endoscopic findings in primary care patients with uninvestigated dyspepsia, the Canadian Adult Dyspepsia Empirical Treatment-Prompt Endoscopy (CADET-PE) study. *Aliment Pharmacol Ther*. 2003;17:1481-91.
- [10] Ziauddin. Endoscopic findings in Dyspepsia a prospective study of 200 cases. *J Post Grad Med Inst*. 2003;17(2):235-9.
- [11] Choomsri P, Bumpenboon W, Wasuthit Y, Euanorasetr C, Sumritpradit P, Suwanthunma W, et al. Upper gastrointestinal Endoscopic findings in patient presenting with dyspepsia. *The Thai journal of surgery*. 2010;31:7-12.
- [12] Sarwar M, Waheed A, Aziz K, Alam T. Endoscopic assessment of Dyspepsia. *Pak Armed Forces Med J*. 2004;54:48-50.
- [13] Khan N, Shabbir G, Zarif M, Khattak MI. Upper Gastrointestinal Endoscopic assessment of patients presenting with Dyspepsia. *Journal of Post Graduate Medical Institute*. 2007;21(03):212-6.

**PARTICULARS OF CONTRIBUTORS:**

1. Associate Professor, Department of General Surgery, MMCRI and KR Hospital, Mysore, Karnataka, India.
2. Post Graduate Student, Department of General Surgery, MMCRI and KR Hospital, Mysore, Karnataka, India.
3. Post Graduate Student, Department of General Surgery, MMCRI and KR Hospital, Mysore, Karnataka, India.
4. Post Graduate Student, Department of General Surgery, MMCRI and KR Hospital, Mysore, Karnataka, India.
5. Post Graduate Student, Department of General Surgery, MMCRI and KR Hospital, Mysore, Karnataka, India.

**NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:**

Dr. Sanjay HM,  
# 201, PG Men's Hostel, MMCRI, Irwin Road, Mysore-570001, Karnataka, India.  
E-mail: skullshake@gmail.com

Date of Submission: **Mar 07, 2015**

Date of Peer Review: **Apr 07, 2015**

Date of Acceptance: **Jun 23, 2015**

Date of Publishing: **Jul 01, 2015**

**FINANCIAL OR OTHER COMPETING INTERESTS:** None.