

The Role of Upper GI Endoscopy in the Diagnosis and Treatment of Chronic Abdominal Pain in A Rural Hospital Set UP

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Abstract

Abdominal pain is one of the most common symptoms patients present in surgical outpatient department. It may be associated with other symptoms which sometime point towards a working diagnosis. But many a time because of the numerous intraabdominal structures it is not possible to arrive at a diagnosis. And particularly chronic abdominal pain is further difficult to diagnose. In such circumstances we need to investigate further and upper GI endoscopy has played a pivotal role in arriving at or excluding some diagnosis since its invention. Recent advances like chromo-endoscopy and narrow band imaging have expanded the applicability of UGI endoscopy both as therapeutic and diagnostic procedure. In our study we have attempted to evaluate the role of upper GI endoscopy in the diagnosis and treatment of chronic abdominal pain. *Materials and Methods:* after informed consent hundred patients were randomly selected from opd and ipd basis and subjected for UGI endoscopy in MVJ medical college and research hospital for a period of one year from August 2016 to August 2018. The observations and results were analyzed under different headings such as gender distribution, association with habits like nicotine consumption, role of helicobacter pylori. *Results:* detailed analysis of the results revealed that males are more affected than females and gastric and duodenal benign conditions constitute the majority of the causes for upper abdominal pain.

Smoking and alcohol consumption are the key risk factors and helicobacter p[ylori] infection was uniformly found in all patients with duodenal ulcers and most of the patients with gastric ulcers. *Conclusion:* Even though associated symptoms along with pain abdomen point towards a provisional diagnosis upper gastrointestinal endoscopy plays a very important role in diagnosing Upper Gastrointestinal pathology with precision and is cost effective in most of the patients. Investigation and eradication of H pylori should be considered in all patients found to have gastric and duodenal lesions on endoscopic studies.

Keywords: Upper abdomen, Pain, Endoscopy

Introduction

Patients with pain in upper abdomen constitute majority of patients visiting surgical OPD. Although a detailed history and physical examination may help to arrive at a diagnosis most of the times it is difficult to do so considering the complexity of the abdominal anatomy. Routine investigations only have a subordinate role and results of ultrasonography of the abdomen are limited by intestinal gas [1]. Within the invention of fiberoptic glasses and flexible endoscopy oesophagogastroduodenoscopy has become a safe, reliable and office procedure. With further advancements in narrow band imaging and chromoendoscopy precision of biopsy techniques and diagnosis has been significantly increased [2]. Discovery of role h pylori in pathogenesis of gastric and duodenal ulcers was a breakthrough in the treatment of these lesions. Since then a variety of invasive and non invasive tests are available to diagnose h pylori infection [3]. Among all the tests

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biopsy based tests are considered to be superior and for the same reason endoscopic biopsies play a crucial role in diagnosing h pylori infection with precision. In our study we have attempted to study the upper abdominal pain, role of oesophagogastroduodenoscopy and impact of h pylori infection in patients visiting MVJ medical college and research hospital which is situated in a rural area.

Materials and Methods

The study was conducted on one hundred randomly selected patients with upper abdominal associated complaints who underwent upper gastrointestinal endoscopy and other relevant investigations. The patients selected for the study were from MVJ Medical College and Research Hospital, Hoskote, Bangalore Rural. These patients were selected from both OPD and IPD basis. The study was conducted for a period between August 2016 and August 2018.

Inclusion Criteria

All patients (both inpatients and outpatients) more than 18 years presenting with persistent abdominal pain.

Exclusion Criteria

- Patients with a definitive diagnosis causing pain abdomen
- Patients needing emergency care or surgery
- Patients not fit for upper GI endoscopy

After explained and written consent the patients were subjected to UGI endoscopy after being completely evaluated with other necessary tests and thorough preparation for endoscopy.

The following endoscopes were used.

1. Fusinon EG 201 FP
2. Pentax EPK -1000

Depending on the various endoscopic findings the patients were managed accordingly. The patients diagnosed to have gastritis, gastric erosions, duodenitis, peptic ulcers and oesophagitis were advised dietary modifications and were put on H2 receptor blockers/proton pump inhibitors.

The patients diagnosed to have oesophagial and gastric malignancies were further subjected for detailed evaluation so as to stage the disease and treat appropriately. All those diagnosed to have malignancies were histologically confirmed cases of malignancies.

Observation and Results

In this study all the 100 patients were subjected to upper GI endoscopic examination. An attempt was made to study the prevalence of upper abdominal pain in different age groups, the chronicity of symptoms, impact of habits, various causes of pain and their frequency of occurrence and the role of helicobacter pylori. The analysis of the study is as follows-

Table 1: Sex distribution

Sex	No of Cases	%
Male	66	66
Female	34	34

Out of the 100 patients included in the study group 66% of the patients were males and 34% were female.

Table 2: Age distribution

Age in Years	No. of Patients	Percentage
20 years or less	02	02
21-40	45	45
41-60	34	34
61 and above	19	19

In this study, among the cases who underwent upper GI endoscopy for abdominal pain, the majority of the cases (45%) were between 21-40 years of age followed by 34% of patients belonging to 41-60 years of age.

Table 3: Based on symptomatology

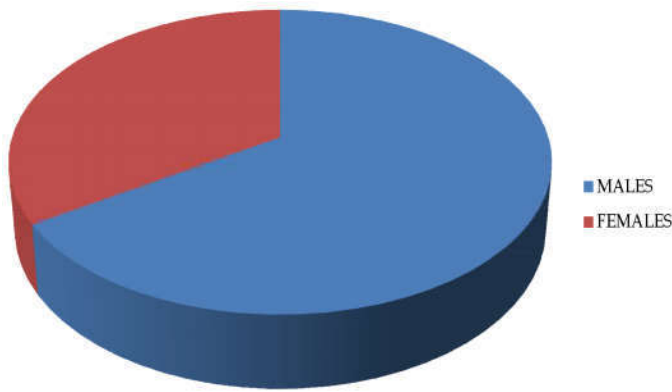
Symptom	Number of Patients	% of Patients
Pain Abdomen	100	100
+ Retrosternal Pain	20	20
+ Vomiting	30	30
+ Loss Of Appetite	50	50
+ Dyspepsia	45	45

In the present study dyspeptic symptoms along with loss of appetite constituted majority of associated symptoms followed by vomiting. Retrosternal pain was in 20 patients.

Analysis of associated habits revealed that 50-60% of patients were found to be correlating their symptoms to either spicy food, alcohol or smoking. Almost 30% of patients were not found to have any of these habits.

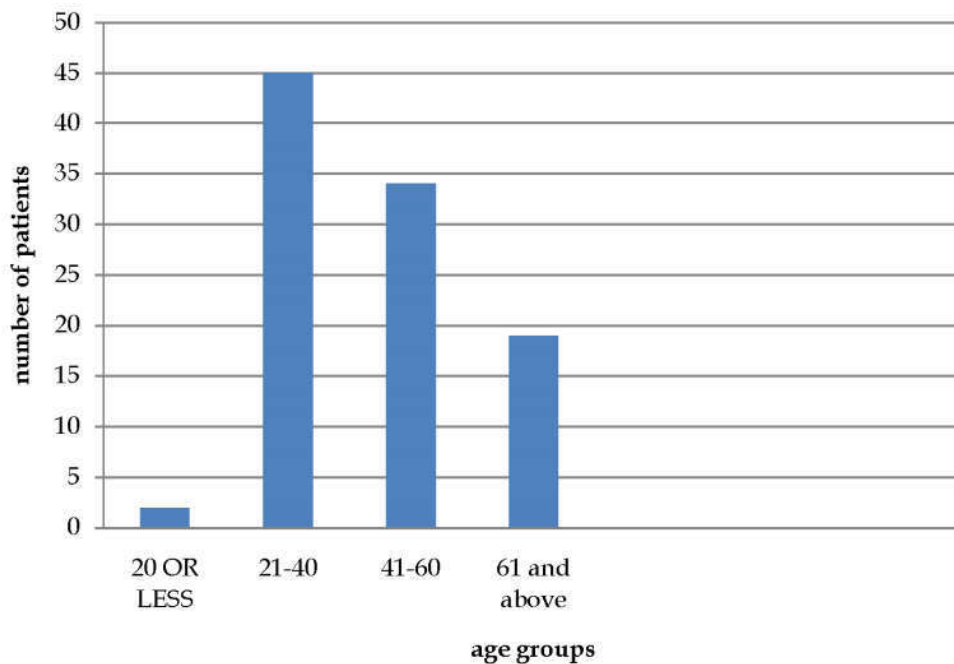
Table 4: Based on Habits

Habits	No. of Cases	Percentage
chronic smoking	40	40
chronic alcoholism	40	40
spicy food	60	60
Tobacco	25	25

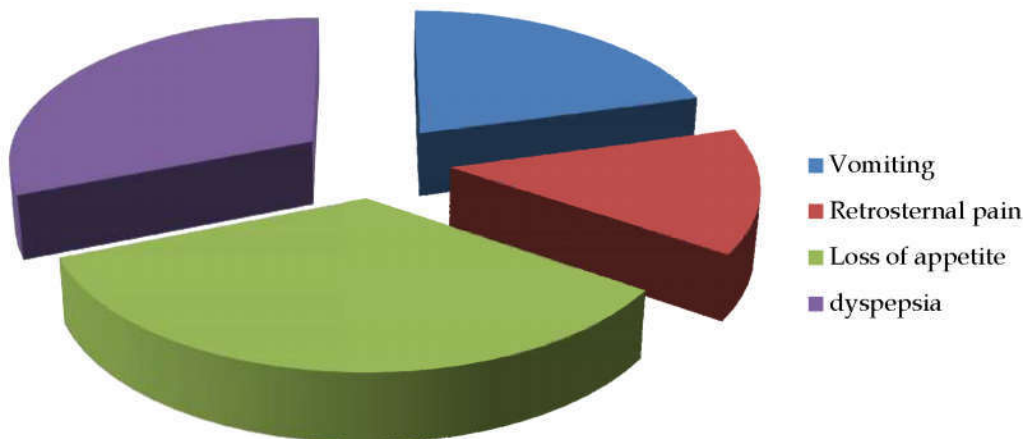


Graph 1: Sex distribution

Agewise Distribution of Abdominal Pain



Graph 2:

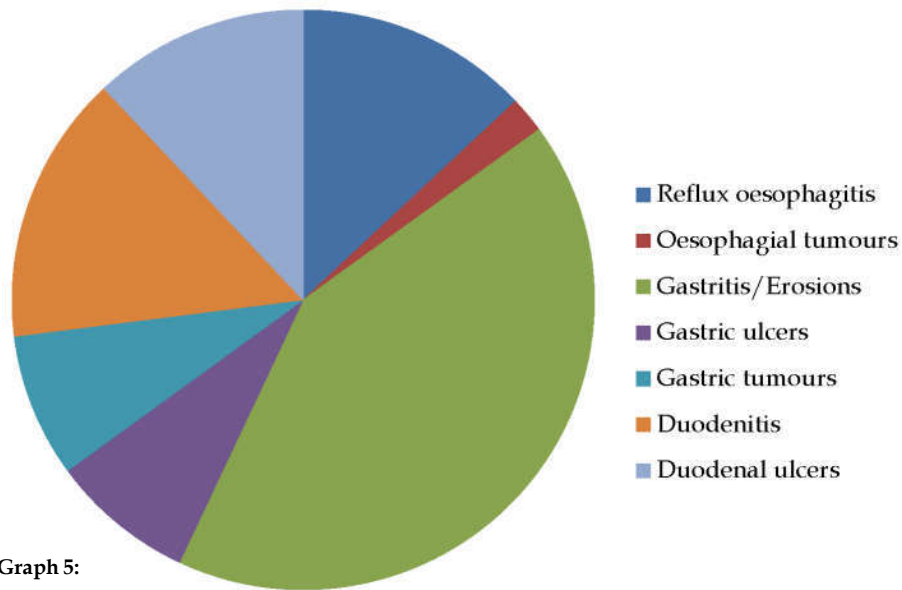
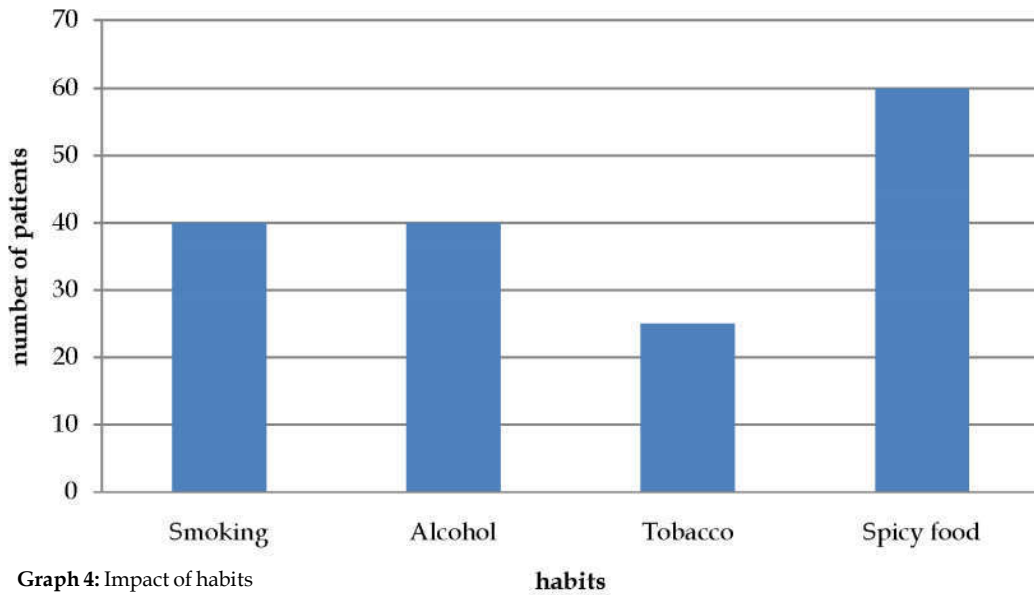


Graph 3: Distribution of Symptoms

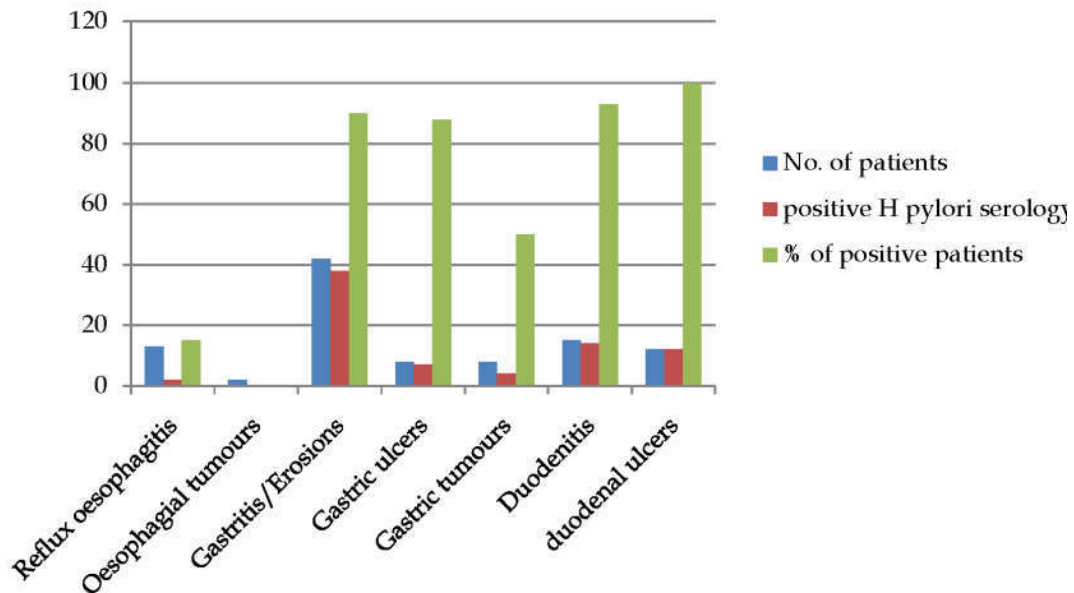
Table 5: Based on endoscopic findings

Findings	No. of Cases	%
Reflux oesophagitis	13	13
Oesophageal malignancies	2	2
Gastritis/ gastric erosions	42	42
Gastric ulcers	08	08
Gastric carcinoma	08	08
Duodenal ulcers	15	15
Duodenitis	12	12

Analysis of endoscopic findings revealed that gastric and duodenal lesions were most common findings with gastric erosions/gastritis seen in 42% of the patients.



Graph 5:



Graph 6: Endoscopic Findings

Table 6: H Pylori Positivity

Endoscopic finding	No. of patients	Positive H pylori serology	% of positive cases
Reflux oesophagitis	13	2	75
Oesophageal tumours	2	0	0
Gastritis/Erosions	42	38	90
Gastric ulcers	8	7	88
Gastric tumours	8	4	50
Duodenitis	15	14	93
Duodenal ulcers	12	12	100
	Total=100	Total=77	

It is evident from the table that almost all the patients with duodenitis and duodenal ulcers and more than 80% of patients with gastric lesions were found to be positive for h pylori thus underlining the significance of h pylori infection in aetiology of acid peptic disease.

Discussion

In our study we found that males are found to be more affected than females which is consistent with other studies. These findings may be attributable to increased work place stress, habits and food consumption. Majority of patients were aged between 20 and 50 years which again can be attributable to work place burden, untimely food intake and habits. This has a significant impact on their work in terms of absence from work and decrease in income.

Our study has shown that consumption of spicy food, alcohol intake and smoking are the major risk factors for development of upper GI pathologies which is in consistent with a study conducted by Hirota et al. [4].

Our study has shown that h pylori association is significantly high in gastric and duodenal lesions which is consistent with findings of other research studies [5,6].

Upper GI endoscopy is cost effective in long term management of chronic upper abdominal pain [7]. It is considered as gold standard for diagnosing gastric and duodenal ulcers [8,9]. It is also safe and useful in paediatric and adolescent patients [10,11].

Conclusion

Because of its precision and relatively safe technique upper GI endoscopy can be considered in all patients presenting to surgical OPD with complaints of persistent pain in upper abdomen. It not only helps in diagnosing the pathology but also provides an opportunity to do therapeutic interventions. It also helps to delineate the extent of pathology. Investigating helicobacter pylori should be considered in all patients found to have gastric or duodenal lesions on upper GI endoscopy as its association with these lesions ranges from 80 to 100%. Subjecting patients early to

endoscopic study many a times helps to detect the malignancies in early stages and has a significant positive impact on their treatment.

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