## **Original Research Article**

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# Gastroscopic evaluation of patients with dyspeptic symptoms with incidental finding of cholelithiasis

## Minakshi Gadahire\*, Ashwin Pai, Mohan Joshi

Department of General Surgery, Lokmanya Tilak Municipal Medical College and Hospital, Mumbai, Maharashtra, India

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## \*Correspondence:

Dr. Minakshi Gadahire,

E-mail: gadhireminakshi@yahoo.in

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#### **ABSTRACT**

**Background:** Patients with dyspeptic symptoms are subjected to ultra-sonography by many practitioners and post for Cholecystectomy, if there is a finding of cholelithiasis. Many of these patients continue to have post operatively similar pain which they experienced before the cholecystectomy surgery. This made us think of doing upper gastrointestinal endoscopy to find any upper gastrointestinal disease in oesophagus, stomach or duodenum. So that if we get any positive endoscopic finding we can treat those conditions before posting the patients for cholecystectomy. Aim of the study was to study outcome of upper gastrointestinal endoscopy in patient with dyspeptic symptoms having gall stones, to evaluate whether there is any other cause of dyspepsia apart from cholelithiasis.

**Methods:** This study was conducted at a single teaching hospital in Mumbai over a period of 3 years. Prospectively, 60 patients were studied for upper endoscopy findings associated with dyspepsia in a patient of cholelithiasis.

Results: Abnormal findings of upper gastrointestinal findings on endoscopy were seen in 65% of patients.

**Conclusions:** All Patients with dyspepsia should undergo upper gastrointestinal endoscopy before subjecting to any other radiological investigations.

Keywords: Dyspepsia, Gastroscopy, Upper gastrointestinal endoscopy

## INTRODUCTION

It is commonly thought that typical patient of cholelithiasis is fat, flatulent, females, the relationship between gallstones and flatulent dyspepsia is far from certain. It has been increasingly realized that cholecystectomy fails to relieve these symptoms in proportion of patients so that Maingot could write that cholecystectomy has little or no effect in preventing the unpleasant symptoms of flatulent dyspepsia.<sup>1</sup>

In India, there is no established standard, as for endoscopy being performed in a routine way before surgery of gall-bladder. Patients with symptoms of vague dyspepsia are usually subjected to ultrasonography of abdomen and if there is a finding of gallstones, then they undergo cholecystectomy. Significant percentage of

patients gets relieved of their symptoms by cholecystectomy but quite a few patients continue to have these symptoms after surgery. So it was suggested that all patients who present with dyspeptic symptoms undergo upper gastrointestinalscopy before undergoing cholecystectomy and if found to have treatable upper gastrointestinal pathology then treat the condition first and see for relief of symptoms before venturing for cholecystectomy.

#### **METHODS**

This study was conducted at a single teaching hospital in Mumbai over a period of three years. Sixty patients who had symptoms of dyspepsia with incidental finding of cholelithiasis on ultra sonography were subjected to upper gastro-intestinal endoscopy.

#### Inclusion criteria

- All patients with dyspeptic symptoms with cholelithiasis on ultrasound
- Age above 18 years and any sex.

#### Exclusion criteria

- Pregnant females
- Symptomatic gallstones (biliary colicky pain in right hypochondriac region with nausea and vomiting, pain radiating to medial and inferior aspect of right scapula and shoulder)
- Parameters studied were age of patient, sex, clinical history and examination, ultrasound findings, finding of upper gastrointestinal endoscopy.

The records were maintained in the form of proforma below:

## History

Enquiries were made regarding age, sex, presenting complaints, presence of belching, epigastric pain, epigastric fullness or bloating sensation, pain associated with food, duration of pain in epigastric region, any comorbid condition, any medications(NSAIDS, corticosteroids, Antihypertensive or Anti-diabetic medicines), addiction to alcohol.

## Examination

Pallor, icterus was noted. On clinical examination of abdomen, the status of liver, spleen and presence of ascitis, lump in abdomen especially right hypochondriac region and epigastric region, tenderness in abdomen.

### **Investigations**

Ultrasonography of abdomen, upper gastrointestinal endoscopy, endoscopic biopsy.

The endoscopy findings were compared with the dyspeptic symptoms and study was done to find the need for mandatory upper gastrointestinal endoscopy in these patients with dyspepsia even with a finding of cholelithiasis on ultrasonography.

#### **RESULTS**

Maximum number of patients was in the age group of 30-39 (31.67%). Among 60 patients, 40 were female patients (66.66). Around 48 patients among 60 had duration of symptoms for period of less than 1 year. Around 55 % of patients had pain in epigastric region associated with food. Belching in 44 (73.33%), nausea in 33 (55%), vomiting in only 28 patients (46.66), Co-morbid condition like hypertension in 12 (20%), and diabetes in 18 (30%) of patients were seen. Abdominal tenderness in epigastric region was seen in 42 (70%) patients. Upper

gastrointestinal endoscopy abnormal findings were seen in 39 (65%) patients.

Upper gastrointestinal scopy findings were - GERD in 14 (23.33%), antral gastritis in 10 (16.66%), duodenal ulcer in 8 (13.33%), gastric erosions in 4, Biliary reflux from duodenum into stomach in 3 patients were seen, rest of the endoscopy were normal in 21 (35%) patients (Table 1).

Table 1: Upper gastrointestinal scopy findings.

Findings	Number	Percentage
GERD	14	23.33
Antral gastritis	10	16.66
Duodenal ulcer	08	13.33
Gastric erosions	04	6.66
Biliary reflux	03	5
Normal	21	35
Total	60	100

Endoscopic biopsies were taken in 17 patients for *Helicobacter Pylori* infection and a rapid urease test was done. Biopsy was positive for *H. Pylori* in 12 (70.58%) patients.

#### **DISCUSSION**

Patients having dyspepsia who had undergone ultrasonography and diagnosed to have cholelithiasis were posted for upper gastrointestinal endoscopy instead of cholecystectomy.

In this study most of the patients were in age group of 30-39 years. Sex ratio was female to male was 3:1. In our study, 45 patients (73.3 %) had belching, 33 patients (55%) had nausea, and 28 patients (46.66%) had vomiting. In a similar study Bartosz found 4% of patients had symptoms of nausea, 24.6 % patients gave complaints of belching and 43.33% had given history of vomiting.<sup>2</sup> Thirty three patients (55%) gave positive corelation between food and dyspepsia. In study titled "Clinical manifestation of gallstone disease: evidence from the multicenter Italian study on cholelithiasis (MICOL)", they found a strong co-relation between gallstones and dyspepsia aggravated by food.<sup>3</sup> Forty two patients (70%) had tenderness in epigastric region. In a similar study Bartosz et al, found pain on pressure in epigastric region in 89.8 % of patients. Out of 60 patients, 39 patients had abnormalities. Like, antral gastritis (16.66%), biliary reflux (5.00%), duodenal ulcer (13.33%), gastro oesophageal reflux disorder (23.33%), gastric erosions (6.66%). In their study, Sosado and Thybusch found gastritis in majority of their patients -26.3% and 25.7% respectively.<sup>4,5</sup>

Pathologic changes in the stomach and/or duodenum in 1187 (42%) patients; gastric ulcer was found in 179 (6.4%), duodenal ulcer in 127 (4.2%), gastritis in 735

(26.3%), polyps in 143 (5.1%) and gastric cancer in 3 (0.1%) patients.<sup>4</sup> Cholecystectomy was not done for patients with peptic ulcer and most of them became asymptomatic after antiulcer treatment.<sup>4</sup> In Thybusch's study the therapy concept had to be changed in 8.3% of the patients due to gastroscopic findings, 23 patients with ulcers, 2 with erosions and 1 with oesophagitis had to be treated medically and so the cholecystectomy was postponed. Two patients with gastric cancer underwent gastrectomy.<sup>5</sup>

We carried out biopsies from antrum of stomach to check for *H. Pylori* by rapid urease test. Total 17 biopsies were taken out of which 12 were positive for *H. Pylori*. That is about 20% of our study group. Similar findings were seen in study conducted by Bartosz et al, where 36% of patients were positive for *H. Pylori*.<sup>2</sup> Rassek D. et al conducted gastroscopy in 589 patients and found upper GI pathology in 44% of patients and alteration in treatment with postponement of cholecystectomy in 11.7% of patients.<sup>6</sup>

Fahlke J et al did gastroscopy in 646 patients and found upper GI pathology in only 8.2% of patients. Beyermann K et al did gastroscopy in 610 patients and found upper GI pathology in only 11% of patients. So Fahlke concluded that gastroscopy should be carried out for non-specific upper abdominal pain, or when there is history of peptic ulcer disease or when pain exists even after cholecystectomy. Beyermann also had similar views. So in the literature there are mixed views about Gastroscopy to be done prior to cholecystectomy.

## **CONCLUSION**

Around 65% of patients had positive upper gastrointestinal findings for which treatment was provided before subjecting them for cholecystectomy. So we feel routine gastroscopy to be done for patients with dyspeptic symptoms with incidental findings of cholelithiasis.

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institutional ethics committee

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