

Role of Upper GI Scopy in Preventing Postcholecystectomy Pain in Patients with Cholelithiasis

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Abstract: ***Aim:** To evaluate the value of preoperative Upper GI scopy as a routine investigative tool in patients with gall stone disease in patients admitted for symptomatic cholelithiasis. **Method:** This is a prospective study conducted on 50 cases at the Department of Surgery, K R Hospital, Mysore. The patients admitted with symptomatic Cholelithiasis proven ultrasonographically, were subjected to Upper GI scopy irrespective of age and sex. **Results:** Endoscopic study showed that 48% of the cases experienced upper GIT abnormalities as: Gastritis, esophagitis, gastro-esophageal reflux disease, peptic ulcer (gastric or duodenal) Normal GI endoscope was estimated among 26 patients (52%). **Conclusion:** The routine use of Upper GI scopy in patients with symptomatic cholelithiasis prior to elective cholecystectomy could be clinically helpful and also may be cost effective in prevention of post cholecystectomy syndrome.*

Keywords: Cholelithiasis, Gastrointestinal reflux disease, Gastritis

1. Introduction

Gallstones are the most common biliary pathology. It is estimated that gallstones affect 5 – 10 per cent of the population in western societies¹. They are asymptomatic in the majority of cases (>80%). Approximately, 1–2 per cent of asymptomatic patients will develop symptoms requiring surgery per year, making cholecystectomy one of the most common operations performed by general surgeons.

Gallstones may remain asymptomatic, being detected incidentally as imaging is performed for other symptoms. If symptoms occur, patients typically complain of right upper quadrant or epigastric pain, may radiate to the back described as biliary colic. Other symptoms include dyspepsia, flatulence, food intolerance, particularly to fats, and some alteration in bowel frequency. Symptomatic cholelithiasis is the commonest indication for cholecystectomy. Unfortunately, the symptomatology of gallbladder stone disease has been hard to define despite research spanning decades. Studies examining the relief of symptoms after cholecystectomy suggest that approximately one quarter of patients undergoing cholecystectomy will not experience relief of symptoms, and that dyspeptic symptoms are least likely to be cured by cholecystectomy.

Post-cholecystectomy syndrome (PCS) consists of a group of abdominal symptoms that recur and/or persist after cholecystectomy. It is defined as early if occurring in the post-operative period and late if it manifests after months or years².

Reflux Esophagitis, hiatus hernia, bile gastritis, gastric erosions, gastric and duodenal ulcers are of the most common causes of post cholecystectomy syndrome.

It is therefore important that an accurate documentation of dyspeptic or atypical symptoms be made, and patients should be treated together with surgery for Cholelithiasis.

2. Method

This is a prospective study that was conducted on patients admitted to Department of General Surgery, K R Hospital, Mysore from March 2015 to October 2015 with symptomatic gall-stone disease for Elective Laparoscopic or Open Cholecystectomy. The data collected from the patients included personal information, presenting signs and symptoms, any prior medications, investigations including ultrasonography, Liver function tests and Coagulation profile.

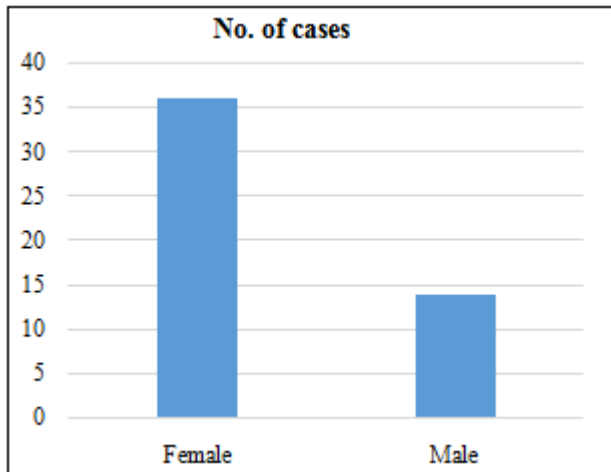
Inclusion criteria were Patients with gall stone disease proven ultrasonographically with symptoms which included biliary colic and atypical symptoms such as abdominal discomfort, dyspepsia, nausea, belching, heart burn, food intolerance, flatulence, vomiting and loss of appetite.

Patients with acute abdomen, whose general conditions were not stable and patients with complicated gallstones such as choledocholithiasis, obstructive jaundice, cholangitis, gall stone pancreatitis, gall bladder neoplasm, previous biliary/pancreatic surgery were excluded from the study.

All patients underwent Upper GI scopy 2-3 days prior to cholecystectomy. The findings of Upper GI scopy were recorded and were treated.

3. Results

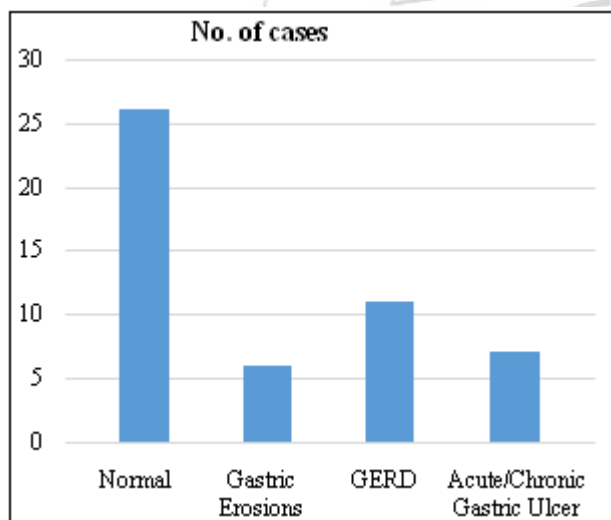
Out of 50 cases in our study between March 2015 to October 2015, age groups ranged from 22-70 years with mean age 37.5 years. 36 cases (72%) were females and 14 cases (28%) were Males. Most of the studied group was females (72%), This result verifies the more prevalence of gallbladder disease in females. This is similar to most worldwide studies that states that the majority of patients with chronic calculous cholecystitis are females in middle age.



The upper GI scopy findings were as follows,

Findings at Upper GI scopy	No of cases
1) Normal study	26(52%)
2) Reflux Esophagitis	11(22%)
3) Acute / Chronic Gastric Ulcer	7(14%)
4) Gastric Erosions	6(12%)

Out of 50 cases in our study, 11 cases (22%) had Gastroesophageal reflux disease, 7 cases (14%) had Acute or Chronic gastric ulcers and 6 cases (12%) had Gastric erosions.



4. Discussion

Post-cholecystectomy syndrome or post-operative symptoms which are presented before operation (cholecystectomy) include abdominal pain, jaundice, dyspepsia, increased defecating time, dislike of fatty foods. The causes of this syndrome are still unknown: related to disease of biliary tract, whereas others are not, in recent years, endoscopy has been widely applied in the diagnosis and treatment of digestive tract diseases. This study aimed to assess the value of upper GIT endoscopy in the diagnosis and prevention of post cholecystectomy syndrome.

The etiology of post cholecystectomy syndrome includes biliary causes and extra-biliary lesions, Biliary disease are characterized by bile duct stones, inflammatory strictures of

the papilla and lesions of cystic duct stump. And extra-cholangial conditions commonly comprise reflux esophagitis, digestive ulcers and pancreatitis so it is essential to check related organs for the cause of PCS.

In our study, 11 cases (22%) had Gastroesophageal reflux disease, 7 cases (14%) had Acute or Chronic gastric ulcers and 6 cases (12%) had Gastric erosions, which were treated along with Cholecystectomy to prevent PCS with anti-ulcer drugs.

In a similar study by Mohamad Mozafar and his colleague's et al. they found that, among the 178 patients with atypical pain, 148 (83%) had abnormal findings in EGD. They concluded that, Because of higher incidence of concurrent upper GI problems in patients with gallstones and atypical abdominal pain, esophagogastroduodenoscopy prior to elective cholecystectomy in this group of patients could be clinically helpful and also may be cost effective³.

In other study by Doubilet and Mulholland, Upper GIT endoscopy was performed in 371 patients of whom 341 patients (91.9%) were diagnosed etiologically for having upper GIT pathologies associated with chronic cholecystitis which lead eventually to development of post cholecystectomy syndrome in these cases. Also in other study in Germany, 263 patients complained of abdominal pain post cholecystectomy operation and had undergone upper GIT endoscopic study revealed Reflux esophagitis and 43 patients due to peptic ulcer disease either duodenal or gastric ulcers. 65 patients were diagnosed by abdominal ultra sound to have biliary causes as common bile duct stones⁴.

In other study, Upper GIT endoscopy was performed in 371 patients of whom 341 patients (91.9%) were diagnosed etiologically for having upper GIT pathologies associated with chronic cholecystitis which lead eventually to development of post cholecystectomy syndrome in these cases⁵.

Thus, We conclude that, Upper GI scopy in a patient with Cholelithiasis may be helpful in preventing post cholecystectomy syndrome in a cost effective manner.

References

- [1] Huang J, Chang CH, Wang JI, Kuo HK, Zin JW, Shan WY. Nationwide epidemiological study of several gallstone disease in Taiwan. *BMC Gastroenterology*. 2009;9:63.
- [2] R GIROMETTI, G BRONDANI, L CERESER, G COMO, M DEL PIN, M BAZZOCCHI and C ZUIANI. Post-cholecystectomy syndrome: spectrum of biliary findings at magnetic resonance cholangiopancreatography. *BJR*, 83 (2010), 351–361.
- [3] Mohamad Mozafar, Mohamad reza Sobhiyeh, Motahe Heibatollahi. *Gastroenterology and hepatology from bed to bench*. 2010; 3(2): 77-82
- [4] DOUBILET H. and MULHOLLAND J.H.: Eight years of pancreatitis and sphincterotomy. *JAMA*. 2001;160: 521.
- [5] DOUBILET H. and COLP R.: Resistance of the sphincter in the human S G & O., 1997. 64: 622.