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## Cholelithiasis managed with Laparoscopic cholecystectomy- A case report

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### Abstract

Gallstones (GS) are common in northern India. Laparoscopic cholecystectomy (LC) has replaced open surgery in the treatment of symptomatic cholecystolithiasis. We reported a case of cholelithiasis in 37 years old female patient managed with LC.

**Keywords:** Cholecystolithiasis, Gallstones, Laparoscopic cholecystectomy

### Introduction

Gallstone disease has been considered an uncommon entity in children and infants, but its incidence is reportedly increasing which may be attributed to widespread use of diagnostic imaging (ultrasonography) [1]. Gallstones found in adults are primarily cholesterol stones or mixed stones but in children pigment stones formed as a consequence of hemolytic diseases like sickle cell anemia, thalassemia and hereditary spherocytosis are more common. In India, gall stone disease are 7 times more common in northern than southern India. Also, it has been reported that gall stones in northern India are predominantly cholesterol or mixed stones while that in southern India are pigment stones [2].

Gallstones (GS) are common in northern India. For every patient with symptomatic gallstone disease (GSD) there are many with asymptomatic GS; Ransohoff [3], in a review of 9,332 post-mortem reports over 10 years, found that only 14% of those with GS had undergone cholecystectomy, indicating that up to 86% were asymptomatic. These asymptomatic Gall stones are being more frequently detected incidentally as ultrasonography (US) has become a routine investigation.

Laparoscopic cholecystectomy (LC) has replaced open surgery in the treatment of symptomatic cholecystolithiasis. Gallstone disease has a great impact on a surgeon's daily routine. Laparoscopic cholecystectomy has gained widespread popularity for treatment of symptomatic cholelithiasis. First laparoscopic cholecystectomy was performed by Dr Erich Miuhe in the year 1985 for removal of gall stones [4]. We reported a case of cholelithiasis in 37 years old female patient managed with LC.

### Case Report

A 37 years old female patient visited to outpatient department with chief complaint abdominal pain since 1 month. The episodes of pain were acute in onset and associated with vomiting. The pain aggravated after consumption of food. There was positive history of loss in appetite. There was no other associated history like fever, icterus, bleeding tendencies.

General physical examination found to be normal. Patient was afebrile and vital signs were within normal limits. Routine laboratory examination was done which were within normal limits also. Ultrasonography (USG) of the gall bladder revealed partially distended GB with multiple calculi in gall bladder lumen. Common Bile duct was normal. The findings were suggestive of cholelithiasis. Patient was planned for LC. A four- port laparoscopic cholecystectomy was done under general anesthesia using two 5 mm ports and two alligators. The anatomy of Calot's triangle was found normal. Postoperative stay was comfortable and patient was allowed oral feeds after four hours. Patient was discharged next day. Follow up patient was comfortable, accepting feeds with no complaint of vomiting or abdominal pain and the appetite of the patient had improved. Prognosis was good.

### Discussion

Prophylactic cholecystectomy for asymptomatic patients can be justified in certain circumstances, such as in patients with sickle cell disease, those undergoing open bariatric surgery, requiring long term total parenteral nutrition, or patients who are therapeutically

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immunosuppressed after solid organ transplantation. Patients with sickle cell disease often have hepatic or vaso-occlusive crisis that can be difficult to differentiate from acute cholecystitis. Absolute contraindications to laparoscopic cholecystectomy include the inability to tolerate general anesthesia or laparotomy, refractory coagulopathy, diffuse peritonitis with hemodynamic compromise, cholangitis, and potentially curable gallbladder cancer. Pregnancy is a controversial relative contraindication to laparoscopic cholecystectomy but still it can be performed safely during pregnancy, but only with great care [5].

Laparoscopic cholecystectomy is one of the routinely performed procedures of choice for cholelithiasis. Laparoscopy is done whenever cholecystectomy needs to be performed. It has its own set of advantages and disadvantages. The various advantages offered by this technique are minimal hospital stay, minimum pain, rapid recovery and early return to work. Various risk factors predispose to the complications of this procedure. These include age, male predominance, presence of systematic diseases, increased thickness of the bladder wall, gall bladder empyema, all these predispose to the post-operative complications. Initially complications associated with this technique were high but now they have decreased and it carries a lower risk of morbidity and mortality compared to open cholecystectomy procedures [6].

LC is a good and precise operative technique, careful anatomical dissection with identification of appropriate landmarks can aid in reduction of the complication rate. Cholangiography can be done if there is any confusion regarding the landmarks. Various patient and surgeon's factors are responsible for complications associated with laparoscopic cholecystectomy [7]. We reported a case of cholelithiasis in 37 years old female patient managed with LC.

Sarda *et al.* [8] assessed a total of records of 230 patients. All the patients were aged between 30-65 years. There was a male predominance in our study. The mean age group was 40.21±1.13 years. Majority of cases were of Chronic calculous cholecystitis (64.3%). There were 20% cases (n=46) of acute cholecystitis. There were 12 cases of leakage of bile, out of them 6 were managed conservatively, 4 underwent minimal invasive surgery and 2 underwent open surgery.

According to Kauvar *et al* [9], the etiologies of cholelithiasis in the Indian pediatric population are hemolytic (20–30%), idiopathic (30–40%) and other causes like total parenteral nutrition, congenital biliary disease, ileal disease (40–50%). Majority of these patients present with typical biliary symptoms (50%).

Bingener *et al.* [10] in their study 120 patients were included who underwent laparoscopic cholecystectomy after going through a thorough clinical, radiological and laboratory investigations to confirm the disease process. 120 patients were divided into two groups with 60 in each group, group I with age 20-50 years and group II with age of 50-80 years. This study shows that laparoscopic cholecystectomy can be performed in any age group. It can also be performed safely in the elderly patients, although the operative time is slightly longer in view of relatively higher incidence of adhesions in and around the Calots triangle. Operative difficulty, rate of conversion, hospital stay and postoperative short-term outcome are not influenced by the age of the patient.

## Conclusion

Cholelithiasis is common condition found in middle age patients. We reported a case in 37 years old female which was managed successfully with laparoscopic cholecystectomy.

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