

# A Clinical Study of Cholelithiasis in Rural Population

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**Abstract:** ***Introduction:** cholelithiasis is a chronic recurrent disease of the hepatobiliary system. The impaired metabolism of cholesterol, bile acids, bilirubin characterised by gallstone formation. the prevalence of cholelithiasis varies and has been reported as 2-29% in india, and increased in recent years. **Aims:** In the present study we are studying the incidences of cholelithiasis in rural hospital, various modes of presentation, to evaluate the feasibility of laparoscopic cholecystectomy in rural hospital and cost effectiveness of laparoscopic cholecystectomy in rural population and to study the post operative complications cholecystectomy in rural hospital. **Materials and methods:** A study includes 50 patients of cholelithiasis, admitted to surgical wards between jan 2014 to jun 2014, in Adichunchanagiri hospital, B G Nagar. The patients were selected by signs and symptoms of cholelithiasis, acute cholecystitis, and chronic cholecystitis. **Results and Discussion:** In this study, the incidences of cholelithiasis more in females compared to males. Also it is more with arpit bansal et al study, which shows cholelithiasis is more common in females and in the age group of 30-50years. In table 3&4, majority of the patients presented with biliary colic, these symptoms are more common in females with obesity and lactating mothers as a risk factors. Angelico F et al, study shows that obesity and parity are risk factors for cholelithiasis. Those patients who have diabetes mellitus as risk factors, are mainly male patients and presented with signs and symptoms of chronic cholecystitis. **Conclusion:** In this study the incidence of cholelithiasis in rural population is increasing due to change in dietary habits and lifestyle modification.*

**Keywords:** Cholelithiasis, laparoscopic cholecystectomy

## 1. Introduction

Cholelithiasis is a chronic recurrent disease of the hepatobiliary system. The impaired metabolism of cholesterol, bile acids, bilirubin characterised by gallstone formation. the prevalence of cholelithiasis varies and has been reported as 2-29% in india, and increased in recent years. Laparoscopic cholecystectomy is the gold standard for the treatment of symptomatic gallstones and other benign diseases of the gallbladder. It is the commonest operation performed laparoscopically worldwide.

### 1.1 Aims

In the present study we are studying the incidences of cholelithiasis in rural hospital, various modes of presentation, to evaluate the feasibility of laparoscopic cholecystectomy in rural hospital and cost effectiveness of laparoscopic cholecystectomy in rural population and to study the post operative complications cholecystectomy in rural hospital.

## 2. Materials and Methods

A study includes 50 patients of cholelithiasis, admitted to surgical wards between jan 2014 to jun 2014, in Adichunchanagiri hospital, B G Nagar. The patients were selected by signs and symptoms of cholelithiasis, acute cholecystitis, and chronic cholecystitis. These patients were undergone USG Abdomen to confirm gallstones diseases. All the patients were underwent laboratory investigations like complete haemogram, LFTs, serum amylase, upper GI Endoscopy and in some cases CT Abdomen to rule out pancreatitis. All the patients were undergone upper GI Endoscopy to rule out acid peptic diseases. These patients after confirmation of symptomatic gallbladder stones, underwent laparoscopic cholecystectomy/open

cholecystectomy, these patients were studied for postoperative complications like wound infections, biliary leak etc. till the discharge from hospital.

## 3. Results and discussion:

**Table 1:** comparing the incidences of cholelithiasis in male and female patients

	Male	Female
No of Patients	20	30

**Table 2:** Age wise distribution of patients with cholelithiasis

Age in yrs	20-30	30-40	40-50	50-60	60 & above
No of patients	01	28	10	6	5

**Table 3:** various modes of presentation of patients of cholelithiasis

Modes of Presentation	No of patients
Biliary colic	27
Acute cholecystitis	8
Chronic cholecystitis	15

**Table 4:** various risk factors associated with patients of cholelithiasis

Risk factors	No of patients-male	No of patients-female
Diabetes mellitus	5	1
Obesity	5	15
Lactating mothers		5
No risk factors	10	09

**Table 5:** various modalities of treatment done for patients with cholelithiasis.

Modalities of surgery	No of patients
Laparoscopic cholecystectomy	38
Open cholecystectomy	01
Laparoscopic converted to open cholecystectomy	10
CBD exploration	01

**Table 6:** Showing postoperative complications occurred in patients who had cholecystectomy

<i>Postoperative complications</i>	<i>No of patients</i>
No complication	38
Cholangitis	02
Wound infection	08
Bile leak	02

#### 4. Discussion

In this study, the incidences of cholelithiasis more in females compared to males. Also it is more common in the age group of 30-50years. These results comparable with arpit bansal et all study, which shows cholelithiasis is more common in females and in the age group of 30-50years.

In table 3&4, majority of the patients presented with biliary colic, these symptoms are more common in females with obesity and lactating mothers as a risk factors. Angelico F et all, study shows that obesity and parity are risk factors for cholelithiasis. Those patients who have diabetes mellitus as risk factors, are mainly male patients and presented with signs and symptoms of chronic cholecystitis.

In table 5, shows various modalities of surgery done for patients with cholelithiasis. In this, majority of the patients had undergone laparoscopic cholecystectomy. In ten patients we have converted to open cholecystectomy due to per-operative complications like bleeding, injury to the CBD, thick adhesions in calot's triangle with difficulty in doing dissections and presence of CBD stones that identified during the procedure. It shows that due to lacunae in USG abdomen findings and learning curve of operating surgeons.

Majority of the patients had no postoperative complications. In this eight patients had wound infections as postoperative complications. These patients had diabetes mellitus as a risk factor. Two patients had postoperative bile leak that managed accordingly. One patient we have done CBD exploration along with cholecystectomy.

#### 5. Conclusion

In this study the incidence of cholelithiasis in rural population is increasing due to change in dietary habits and lifestyle modification. Majority of the patients in the age group 30-50years and more common in females. Majority of the patients had underwent laparoscopic cholecystectomy. The minimal hospital stay and early return to work with resultant positive financial implications after laparoscopic cholecystectomy. However there is need for further studies to compare the incidence of cholelithiasis in rural and urban population.

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