

A Clinical Study Of Cholelithiasis Presentation And Management In Tertiary Care Hospital

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Abstract: **Background:** Gallstones are the major cause of morbidity and mortality throughout the world and at least approximately >10 % of the adults have gallstones with a recent rise in the incidence due to change in the dietary factors. This study intends to know its various modes of presentation, treatment and outcome. **Materials and Methods:** 100 patients with symptoms and signs of cholelithiasis admitted in department of general surgical units of GCS medical College - A Tertiary care hospital, Ahmedabad, Gujarat. from period of January 2018 to October 2019, were included in the study, clinical profile, investigation, treatments and outcomes were analysed. **Results:** The highest age incidence of cholelithiasis was in the 5th decade, more common in females. Pain abdomen was the most common symptom. Ultrasonography showed gallbladder stones in all patients and 15% of patient undergone open cholecystectomy, 85% of patient undergone laparoscopic cholecystectomy. The conversion rate of lap to open cholecystectomy was 4%. The total operation time and the length of post-operative hospital stay were 100 min and 9 days in open cholecystectomy and 55 min and 3 days in laparoscopic cholecystectomy. **Conclusions:** The result showed cholelithiasis was more common in females, 5th decade, presented most commonly with pain abdomen. Ultrasonography was the most common investigation. Laparoscopic cholecystectomy reduces the total days of hospital stay, pain and disability [Bagdai A Natl J Integr Res Med, 2020; 11(2):17-20]

Key Words: Cholelithiasis; ultrasonography; cholecystectomy, laparoscopy

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Introduction: The prevalence of gall bladder stones varies widely in different parts of the world. In India estimated to be around 4% whereas in western world it is 10%¹.

Gallstones in patients without biliary symptoms are commonly diagnosed incidentally on ultrasonography, CT scans, and abdominal radiography. Several studies have examined the likelihood of developing biliary colic or developing significant complications of gallstone disease². Approximately 3% of asymptomatic individuals become symptomatic per year (i.e., develop biliary colic). Once symptomatic, patients tend to have recurring bouts of biliary colic. Complicated gallstone disease develops in 3 to 5% of symptomatic patients per year. Over a 20-year period, about two thirds of asymptomatic patients with gallstones remain symptom free³. An Ultrasound (US) is the simplest and most reliable method for diagnosis of Gallstones.

In addition to identifying stones within the gallbladder or bile duct, abdominal ultrasonography provides important information regarding the anatomy of bile ducts, pancreas, and other structures in the upper abdomen⁴.

Laparoscopic cholecystectomy has become widely used since it was first performed in 1988. The evaluation and treatment of suspected stones in the common bile duct can be carried

out by endoscopic retrograde cholangiopancreatography before laparoscopic cholecystectomy. now laparoscopic cholecystectomy consider to be gold standard for majority of benign diseases related to gall bladder, as having better anatomical approach and less pain of surgery^{5,6}.

Material and Methods: 100 patients with symptoms and signs of cholelithiasis admitted in surgical unit, Gcs Medical College - A tertiary care hospital, Ahmedabad from period of January 2018 to October 2019, were included in the study, clinical profile, investigation, treatments, outcomes were analysed. Data collected in predesigned proforma, regarding Patient Biodata, presenting complaints, preoperative intraoperative and post-operative analysis. Inclusion criteria all patients age >18 years, Exclusion criteria were patient unfit for Anaesthesia and surgery, those patients ultrasound detected or suspected CBD stones and those patients not willing to participate in study.

All 100 patients underwent USG abdomen, baseline investigations were done in all 100 patients.

Results: In our study there is an increased incidence of cholelithiasis in the 5th decade. In this study the youngest patient was 19 years old and the oldest patient is 73 years old.

Table 1: Age Wise Distribution Of The Patients

Age Group (Years)	Number Of Cases	Percentage (%)
11-20	2	2
21-30	6	6
31-40	12	12
41-50	39	39
51-60	27	27
>60	14	14

Table 2: Sex-Wise Distribution

Sex	Number Of Cases	Percentage (%)
Male	26	26
Female	74	74
Total	100	100

Table 3: Presenting Symptoms

Symptoms	Number of cases	Percentage (%)
Pain	98	98
Nausea/vomiting	60	60
Jaundice	3	3
Dyspepsia	28	28
Fever	10	10

Table 4: Ultrasound Findings

Ultrasound Findings	Number Of Cases	Percentage (%)
Stones In Gallbladder	100	100
Solitary Stone	24	24
Multiple Stones	76	76
Thickening Of Gallbladder	80	80

Ultrasound scanning of the abdomen was done in all patients. 80 patients had thickening of Gall bladder. In preoperative evaluation, a haemoglobin level of 10 gm/dl was accepted for the surgery. Blood transfusion was given to selected patients to improve the haemoglobin level.

2 cases diagnosed as acute Cholecystitis were managed conservatively with IV fluids, nasogastric aspiration, antibiotics, and analgesics.

These patients were treated conservatively and were then offered surgery after 6 weeks. Associated medical illness like Diabetes mellitus, Hypertension, tuberculosis etc. was treated accordingly before taking the patient to surgery.

Table 5: Type Of Operation

Type Of Operation	Number Of Cases	Percentage (%)
Laparoscopic Cholecystectomy	85	85
Open Cholecystectomy	15	15

Table 6: Time Taken For Surgery

Type Of Operation	Operating Room Time
Laparoscopic Cholecystectomy	55 Min
Open Cholecystectomy	100 Min

Table 7: Intra Operative Complications

Intra Operative Complication	Laparoscopic Cholecystec tomy	Open Cholecystec tomy
Bile Duct Injury	1	1

Table 8: Postoperative Complications

Postoperative complications	Laparoscopic cholecystec tomy	Open cholecystec tomy	Total
Wound Infection	4	3	7
Haemorrhage	0	0	0
Retained Stones	0	0	0
Bile Leak	0	1	1
Prolong Ileus	0	0	0

In the present study 7 patients had wound infection. 1 patient had post-operative bile leak which was managed conservatively and patient recovered. Two patients had bile duct injury which was repaired on the T-tube.

Table 9: Duration Of Hospital Stay

Operation	Length Of Stay (Days)
Open Cholecystectomy	9
Lap Cholecystectomy	3

Table 10: Type Of Stones

Type Of Stone	Number Of Cases	Percentage
Cholesterol Stone	11	11
Mixed Stones	87	87
Pigment Stones	2	2

Discussion: In our study 100 cases of Cholelithiasis that were admitted in surgical unit, Gcs

Medical College-A tertiary care hospital, Ahmedabad from period of January 2018 to October 2019, Well known available literature on Cholelithiasis is reviewed. The results of our study are compared with those of well-known authors. After a detailed history, clinical investigations and available treatment following observations were noted.

Sex Distribution: In the present study 74 out of 100 cases were female while the rest 26 were male. Battacharya series showed 71.4% were female, 28.6% were male⁸. Similar sex preponderance in the favour of females were noted by Tamnankar also⁹.

Comparison Of Presenting Symptoms With Other Studies: Pain was the predominant symptoms in the present study with 98%. The commonest site of pain was in the Right Hypochondrium, and the next commonest site was Epigastrium. 6 patients complained of pain radiating to the back. 60 patients had chronic Recurring pain, 6 patients had acute onset of pain, and pain was colicky in nature. 13 patients had dull aching pain, 62 patients had Colicky pain. Similar presentations were noted in the series of Alok Sarma¹⁰.

60% of cases in the present series had nausea/vomiting. Patients vomiting were spontaneous, occurred mostly during the attack of pain. The incidence of dyspepsia in present series was similar to Ganey series¹¹. Fever was present in 10 cases in the present study.

Table 11: Comparison Of Presenting Symptoms With Other Studies

Symptoms	Present Study		Alok Sharna Series	
	No	%	No.	%
Pain	98	98	58	100
Nausea/Vomiting	56	56	48	82.8
Jaundice	3	3	3	5.17
Dyspepsia	28	28	5	8.62
Fever	10	10	Na	Na

Ultrasound Findings: Ultrasound scanning was done in all patients, all the cases revealed stone in the gall bladder. Gall bladder stones were seen in 100 patients. Out of which 24 were solitary stones, 76 were multiple, and thickening of gall bladder was seen in 80 patients.

Type of Operation: In the present study 15 patients undergo open cholecystectomy and 85 patients undergone Laparoscopic cholecystectomy. The conversion rate from lap to open cholecystectomy was 4%.

Types of Stones: In our study the most common type of stone is Mixed stones, 87 out of 100 cases, In the present study 87% had mixed stones and 11% had cholesterol stone, 2% had pigment stone.

Postoperative Complication: In the present study wound infection was the most common complication, which was 7%. The wound infection rate in the study of Saxena *et al.* was 6.3%. One patient had bile leakage, the patient was managed conservatively and the patient improved. In this case drain was removed on the 8th post operative day.

Follow Up: There was no problem in the follow up period in any patient. Nothing more can be stated because of limited period of follow up of patients.

Ethical Approval: institution ethical committee approved

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Conflict of interest: None

Funding: None

Cite this Article as: Bagdai A , Sutaria A. A Clinical Study Of Cholelithiasis Presentation And Management In Tertiary Care Hospital. Natl J Integr Res Med 2020; Vol.11(2): 17-20
