



## A Clinicopathological Study of Gall Bladder Disorders

Authors

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### Introduction

- Gall bladder diseases has worldwide distribution with variable incidence amongst different countries.
- Gall stone disease is one of the most common problems affecting digestive tract, with higher incidence amongst females (female to male ratio- 3:1).
- Majority of the patients with cholelithiasis present with chronic cholecystitis with complaint of recurrent attacks of abdominal pain.
- Other common presentation is acute calculus cholecystitis with empyema
- Management modalities initially involves clinical and ultrasonographic (USG) diagnosis, followed by conservative medical management or modern surgical interventions by laparoscopy and endoscopy.

### Aims & Objectives

Our study aims

1. To look at the demographics ( age and sex incidence) and various clinical presentations.
2. To analyse the relation of gall bladder diseases (with or without stones).

3. Role of various diagnostic procedures- USG findings, gross and histopathological findings.
4. To study treatment modalities- conservative and surgical.
5. To study pathological finding of the removed gall bladder.

### Material & Methods

- This is a prospective study conducted in 65 patients with clinical features suggestive of cholecystitis or had a definitive diagnosis of cholelithiasis or other gallbladder disorder, who were admitted in the surgical wards of KATIHAR MEDICAL COLLEGE from January 2018 to JULY2018
- The cases were evaluated by a detailed history (age, sex, parity, socio-economic status, nature & duration of symptoms, past h/o similar complaints, any co-morbid illnesses) and physical examination
- All patients were investigated with CBC,LFT, kFT, blood sugar, chest X-ray. USG was done in all cases whereas CT scan & MRCP in selected cases.
- Informed consent obtained from all patients.

- Acute conditions- conservative management was done (Nil per month, IV fluid, analgesics, and antibiotics, ryle's tube aspiration ).
  - Chronic conditions- operative measures (open or laparoscopic cholecystectomy).
  - The type of operation done, and approach used, intra operative findings were recorded.
  - Post cholecystectomy, the removed gallbladder was sent for histopathological examination and the bile for bacteriological analysis.
  - Routine postoperative care was given & monitoring was done to note any complications.
  - The time during of the patient stay in the hospital and associated complication of the operative procedure were recorded.
- compared to males (30.7%), multiparous (52.3%) , with age distribution commonly seen in 4<sup>th</sup> decade (40%) followed by 5<sup>th</sup> decade (35.3%).
- Most common clinical symptom was pain abdomen (72%), dyspepsia (63.7%) and vomiting (54.7%).
  - Most common disorder in our study was chronic cholecystitis (58.4%) followed by cholelithiasis (16.9%). On USG findings, 87.6% cases were diagnosed as cholecystitis with cholelithiasis and CBD was found normal in 72.3% cases.
  - Cholecystectomy was done in 89.17 % (58) cases, laparoscopic cholecystectomy in 72.3%. Histopathological findings showed maximum evidence of chronic cholecystitis (87.9%).
  - Duration of postoperative stay was shorter in laparoscopic cholecystectomy group with a mean duration of 2.6 days in 47 patients as compared to open cholecystectomy in 11 patients (5.9).

## Results

- In our study we have prospectively analysed the clinical & pathological features of gall bladder diseases over a period of 6 MONTH with the following findings:-
- Higher incidence of gall bladder disorders was seen among females (69.2%) as

**Table - 1**

Relation to Sex (n = 65)- In our study, 69.2% cases were females

SEX	NO. OF CASES	PERCENTAGE
Male	20	30.7%
Female	45	69.2%

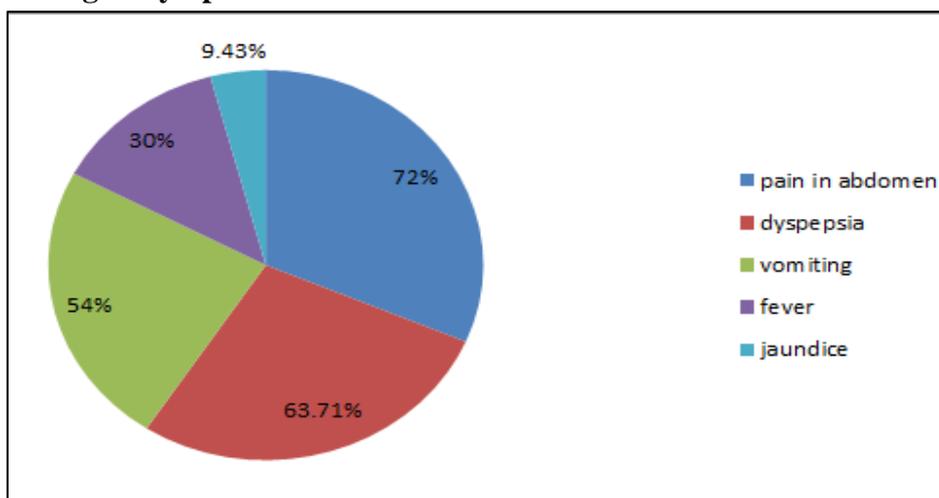
**Table - 2**

Age & Sex Distribution

Maximum no. of cases (40 %) were seen in 4<sup>th</sup> decade, followed by 35.3% in 5<sup>th</sup> decade

Age in years	Male	Female	Total	Percentage
21-30	1	3	4	6%
31-40	8	18	26	40%
41-50	8	15	23	35.3%
51-60	2	5	7	10.7%
61-70	1	4	5	7.6%
Total	20	45	65	

**Distribution According to Symptoms**



**Incidence According to the type of Disorder (n=65)**

Most common disorder in our study was chronic cholecystitis (58.4%)

Gall Bladder Disorder	Number	Percentage
Acute calculous cholecystitis	8	12.3%
Cholelithiasis	3	4.61%
Acute acalculous cholecystitis	1	1.5%
Cholelithiasis with choledocholelithiasis	11	16.9%
Chronic cholecystitis	38	58.4%
CAGB with metastasis	3	4.61%
CAGB without metastasis	1	1.5%

**Relation with Parity (n=45) Maximum no. of patients were multipara (52.3 %)**

Parity	No Of Patients	Percentage
Nullipara	1	2.2%
1	3	6.6%
2	7	15.5%
>3	34	52.3%

**USG Findings (n=65)** 87.6% cases were diagnosed as cholecystitis with cholelithiasis, CBD was found normal in 72.3% cases

1. Gall Bladder	No. of Cases	Percentage
Cholecystitis with cholelithiasis	57	87.6%
Acalculous cholecystitis	1	1.5%
Cholelithiasis	3	4.6%
? GB malignancy	4	6.1%
2. COMMON BILE DUCT		
Normal	47	72.3%
Dilated	7	10.7%
Stone	11	16.9%

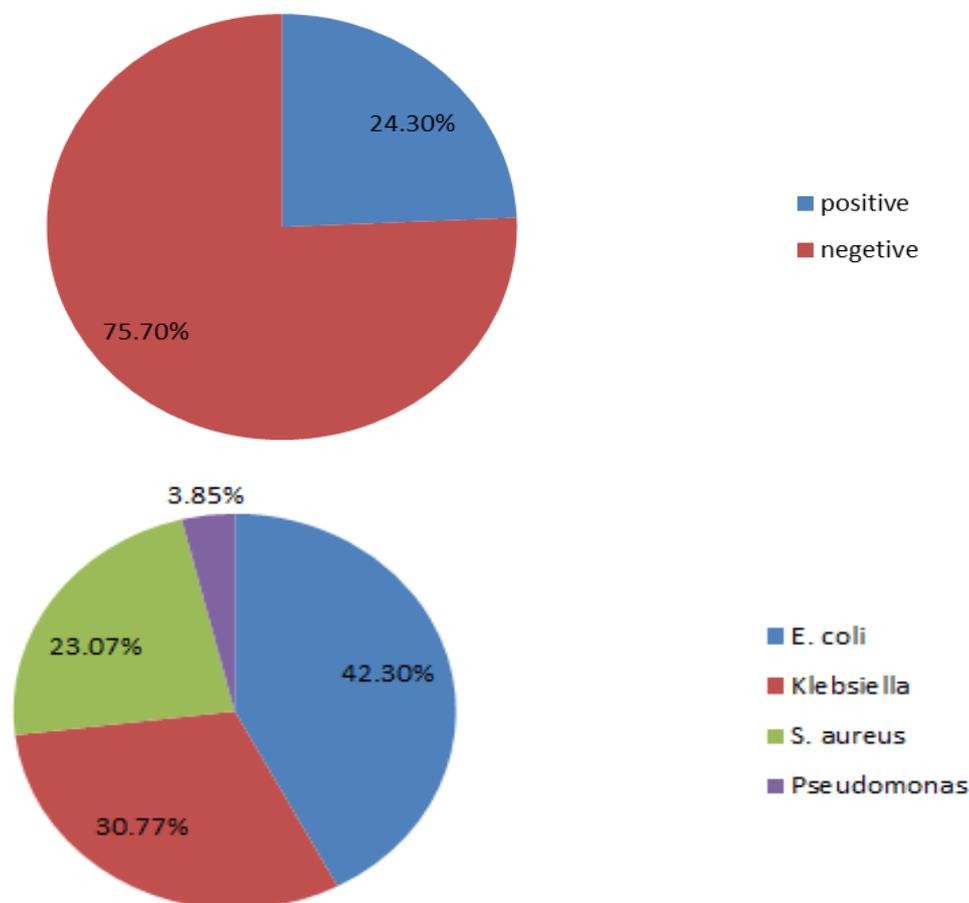
**Type of Treatment (n= 65)** In ours study laparoscopic cholecystectomy was done in 72.3% cases.

Treatment	No. Of Cases	Percentage
CONSERVATIVE	7	10.7%
OPERATIVE :-		
1. Open cholecystectomy	9	13.8%
2. Lap. Cholecystectomy	47	72.3%
3. Lap. Converted to open cholecystectomy	2	3.07%

**Histopathological Findings** (n=58) 87.9% cases were of chronic cholecystitis

HISTOPATHOLOGICAL FINDING	Cases	Percentage
1. Chronic cholecystitis	51	87.9%
2. Acute cholecystitis	2	3.4%
3. Well differentiated adenocarcinoma	3	3.4%
4. Normal histology	2	5.1%

**Bacteriology of Bile & Nature of Organism**



**Postoperative Hospital Stay-** Mean duration of stay in hospital was lesser in cases who underwent laparoscopic cholecystectomy (2.6 days) as compared to open cholecystectomy

Type of operation	No. of patients	Mean duration of stay ( in days)
Laparoscopic cholecystectomy	47	2.6
Open cholecystectomy	11	5.9

**Discussion**

- In our study, gall bladder disorders were found to be more common in females as compared to males with a male to females as compared to males with a ratio of 1:3.2 similar to other studies (1:2.8) and (1:3).<sup>(1-2)</sup>
- Out of 65 cases studied, 75.3% cases were diagnosed as chronic cholecystitis. Majority of the patients represented with complaint of pain abdomen in the right hypochondrium.

- 89.17% of cases underwent surgery for the removal of diseased gall bladder.
- Histopathological examination confirmed cases of chronic cholecystitis 87.9%.
- Various studies have reported that majority of the non neoplastic gallbladder lesions occurred in 4<sup>th</sup> & 5<sup>th</sup> decades,<sup>(3-4)</sup> which is similar to our studies.
- Chronic cholecystitis usually occurs after repeated episodes of acute cholecystitis and

may lead to a variety of complications such as gangrene, perforation or fistula formation.<sup>(5)</sup>

- Therefore, routine investigations and proper diagnosis seems mandatory to help avoid the complications associated with gall bladder lesions.

### Conclusion

The incidence of chronic calculous cholecystitis was found to be 76.3 % with a female preponderance (69.2%). Our study strongly recommends routine USG and histopathological examination of all cholecystectomy specimens for detection of various variants of gall bladder disorders which helps in their treatment and prognosis.

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