



## LAPAROSCOPIC CHOLECYSTECTOMY – A GOLD STANDARD TREATMENT PROSPECTIVE STUDY OF 200 CASES UNDERWENT THIS PROCEDURE

### KEYWORDS

Cholelithiasis, Laparoscopic Cholecystectomy, Male : Female ratio, Duplex Gallbladder.

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**ABSTRACT** Gallbladder disease are one of the most common problems affecting the digestive tract. Gallstones are the common the problem about 22-30% cholecystitis secondary to gallstones is common in about 80-90% of the cases. Some are silent stones.

A female, forty, fertile, fatty with right hypochondrium pain should have a suspicion of cholecystitis.

A gallstoneobstructing CBD leads to obstructive jaundice. If it obstructs cystic duct causes gallbladder distension inflammation and oedema.

Over study shows increased incidence of male : female ratio and age.

Objective : To study the male female ratio of GB disease and complication and presentation of the disease and advantages of the laparoscopic procedure.

Conclusion : Gallbladder diseases are common with variable presentation and change in the male to female ratio of incidence.

### INTRODUCTION

Cholelithiasis is commonest disease of gallbladder<sup>1</sup> which continuous to be one of the most common digestive disorders encountered was traditionally being dealt by conventional open cholecystectomy.

As Carl Langenbueh so aptly started the Gallbladder should be removed not because it contains stones but because it form them<sup>3</sup>. Gallbladder stones are formed of Cholesterol and Calcium salts etc.,<sup>4</sup>. Due to life style changes and changes in diet containing more Cholesterol, today the scenario has changed in age and sex distribution<sup>5</sup>.

LaparoscopicCholecystectomy became the treatment of choicefor Gallbladder diseases . It is now become the Gold standard treatment.

This study in Department of General Surgery, Kurnool Medical College, Kurnool includes to know the pros and cons of the Laparoscopic technique and experience of the management of the complications.

### Patients and Methodology

This study is conducted in Kurnool Medical College, Kurnool , Department of General Surgery. Patients admitted in Department of General Surgery underwent Laparoscopic Cholecystectomy and its efficacy, during the period of 2 years of 200 cases were studied. Case selection was done with following criteria of history, clinical presentation according to proforma. The diagnosis is made mainly on the basis of ultrasound and other radiological investigations . Patients also studied about the postoperative complications with follow-up interval for 20-30 days.

### Results

About 200 patients were admitted with Cholelithiasis and Cholecystitis 60% of female 40% are males .

**Table -1: Sex distribution**

Sex	No. of cases
Male	80
Female	120

Mean age was 50±5yrs. There were 40 patients in the age group of 20-29 (20%). 36 patients between 30-39 (18%). 50 were in 40-49 (26%) age group and 72 patients in 50-60 (36%).

**Table -2 : Age Distribution**

Age	No. of cases
20-29	40
30-39	36
40-49	52
50-60	72

Most of the patients having Cholelithiasis, 37% having multiple calculi and 35% having sludge, 8% of patients having single calculus, 5% patients having polyps in the Gallbladder.

**Table – 3: Intraoperative findings**

Operative findings	Percentage	
Adhesions	Flimsy	35%
	Dense	20%
Difficult callots triangle	12%	
Bleeding	5%	
Anamolies of cystic duct / artery	0.5%	
Anamolies of the Gallbladder,	0.5%	
Duplex Gallbladder		
Mucocoele	5%	
Empyema	5%	
CBD injury	1%	
Bowel injury	1%	
Conversion to open	15%	

Mean optimum time was 60.4min / the operating time was ≤ 64 min in 174 patients. In 6 patients operating time was between 60-75 (3%) and in 20 patients it was 70-90 min.

According to Bismuth Strassburg classification<sup>7</sup> out of 3 CBD injury patients 2 has type E bile duct injury which were presented with bilioma postoperatively and was treated with pig tail catheter by ultrasound guided method and later on undergo Roux en Y Hepatico Jejunostomy. Other patients had Type D bile duct injury, treated endoscopically.

CBD injury was found in 1 case during ligation of the cystic duct with extra corporeal endoloop knot due to traction and the CBD was pulled and looped by knot.

**Table-4 : Postoperative complications**

Postoperative complications	Percentage
Wound infection	20
Nausea / vomiting	5
Jaundice	2
Biliary fistula	1
Post Cholecystectomy syndrome	3
Incisional hernia	0

**DISCUSSION :**

Gallbladder diseases is one of the common digestive tract disorders.

About 10-27% of the adult population of USA has Gallbladder disease with maximum of them have Gallstones<sup>8</sup>. India has similar to it. Gallstone are the most common digestive disease<sup>9</sup>.

In many studies female preponderance was found. In our study 60% of female against 40% of the male incidence Ghnam et al<sup>11</sup> found 92% female and 8% male while Bhasin et al<sup>12</sup> found 83.8% female and 16.2% male patients. Mulchim et al<sup>14</sup> found 85% of females v/s 15% of male while Koulos et al<sup>15</sup> found 78% female and 22% male.

In the present series the mean age was 50 years i.e., in the 5<sup>th</sup> decade of life incidence increases in the decade.

Others studies like Ghnam et al<sup>11</sup> had mean age of 41.4yrs, Chan et al<sup>13</sup> 45.09 years and other study also show similar results for the Gallbladder diseases.

Cholesterol content increases as the age increases leading to the formation of Gallstones<sup>16</sup>. The Contractile nature of the Gallbladder decreases with the increased age due to which stagnation of the while occurs leading to complications<sup>17</sup>.

Duca et al<sup>18</sup> 82.4% and Mulhim et al<sup>14</sup> 61.5% adhesions where has our study shows 35% Flimsy and Dense adhesions. About 1 case we found Duplex Gallbladder and one case Biladuct injury due to the traction on the CBD while putting extra corporeal loop knot.

**Table -5 : Comparison of operative findings**

Operative findings		Our study (n=200)	Bhasin et al <sup>12</sup> (n=200)	Mulhim et al <sup>14</sup> (n=968)	Yetkin et al <sup>20</sup> (n=33)	Duca et al <sup>19</sup> (n=9542)
Adhesions	Flimsy	35	29	61.5	51	82.4
	Dense	20	-	-	-	-
Difficult callots triangle		12	4	4.03	5.3	9.8
Bleeding		5	1	0	1.3	2.3
Anomalous cystic duct / artery		0	0	0	0	0
Duplex Gallbladder		1	0	0	0	0
Empyema		5	2	0	0	0
Mucocoele		5	2	3.2	0	0
CBD injury		1	1	0.3	0.37	0.1
Bowel injury		0	0	0	0	0
Conversion to open		15	4	1.9	8	1.9

Mucocoele and Empyema was found in 5% of cases in our study but Bhasin et al<sup>19</sup> found 0% of the patients.

**CONCLUSION:**

Laparoscopic Cholecystectomy has become the Gold standard treatment for the Gallbladder disease which were becoming common now a days. Though there are different modalities of the treatment the advantages of this procedure are good patients acceptance and minimal access surgery with small incision and less complication. With expertise of the surgeon dissection is easy.

The incidence in females was more but now a days the male incidence is coming near to equalise the female. Our study found a very rare incidence of Duplex Gallbladder having H shaped cystic duct (Fig:1, 2) to ducts joining the CBD.

**Fig-1**



Fig-2



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