



## Incidence of incidental carcinoma gallbladder in cases of routine cholecystectomy in Eastern Indian population

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### Abstract

**Background:** *The most common malignancy of the biliary tract is carcinoma gallbladder and most of these cases are diagnosed incidentally in patients undergoing Cholecystectomy.*

**Objectives:** *Find the incidence of gallbladder carcinoma in patients undergoing routine cholecystectomy.*

**Methods:** *A prospective study was carried out in Sri Rama Chandra Bhanja medical College, Cuttack in the year 2018. The surgical notes hospital records and histopathology reports of 100 patients who underwent routine cholecystectomy were studied.*

**Results:** *Out of hundred cases studied, 2 cases for detected to have gallbladder carcinoma. Males and females at equal preponderance and mean age of occurrence was 46.5 years. Both were adenocarcinoma of gallbladder.*

**Conclusion:** *Rate of incidental gallbladder carcinoma is 2% in Eastern Indian population.*

**Keywords:** *Carcinoma gallbladder, cholecystectomy, incidental.*

### Introduction

The most common elective abdominal surgery performed worldwide is cholecystectomy. In US alone 500 to 600 thousand cases are operated annually out of an estimated 1 million gall bladder disease cases. Gallbladder carcinoma is the 5th most common cancer of the digestive system and the most common malignancy of the biliary system. Gallbladder carcinoma are usually asymptomatic and are diagnosed incidentally after cholecystectomy. 90% of gall bladder carcinoma

are associated with gall stones. Thereby, gall stones and chronic inflammation are proven risk factors developing carcinoma gallbladder. However, only 0.5 - 3% of patients with cholelithiasis develop gallbladder cancer. Most of these cases are diagnosed either intraoperatively or postoperative histopathologically. Despite all the advanced Diagnostic procedures available, preoperative diagnosis of gallbladder carcinoma is an exception rather than the rule. Because of this reason gallbladder carcinoma usually gets

diagnosed at a late advanced stage which leads to poor prognosis. To overcome this, some surgeons recommend cholecystectomy for even asymptomatic gall stone disease patients. The aim of this study determine the frequency of incidental gallbladder carcinoma in patients undergoing routine cholecystectomy and to study the demographic profile and prognosis of these patients.

### Materials & Methods

A prospective study was done 100 routine cholecystectomy cases performed in 2018 in Sri Rama Chandra Bhanja Medical College, Cuttack, India. The inpatients charts including the operating notes, all clinical information, histopathological reports and their follow up were evaluated. The data analysis was done using SPSS version 16. The results were tabulated and interpreted after a thorough review of the literature. Patients who were were subjected to open or laparoscopic cholecystectomy following pre operative diagnosis of benign biliary pathology or cholelithiasis were included in the study. The study was ethically approved by the ethical Committee of our hospital.

### Results & Discussion

A total of 100 cholecystectomies were performed during the study period. Most of the cases (98%) were acute or chronic calculus cholecystitis. One patient was operated for gall bladder polyp. Out of

the 74 cases having cholecystitis; 6 patients also had associated choledocholithiasis, 1 patient had Mirrizi syndrome Type II and 1 patient had cholecystoduodenal fistula. Most common presentation were pain in right hypochondrium region (56%), dyspepsia (22%), epigastric pain (12%) and nausea or vomiting (10%).

There were 22 males and 78 females with female: male ratio being 3.55:1. The age of the patients ranged from 18 years to 84 years old.

A total of 2 patients (2%), 1 male and 1 female were diagnosed to have carcinoma GB on histopathological examination of the GB specimen. The female: male ratio was 1:1. The age ranged between 23 to 70 years with mean age being 46.5 years.

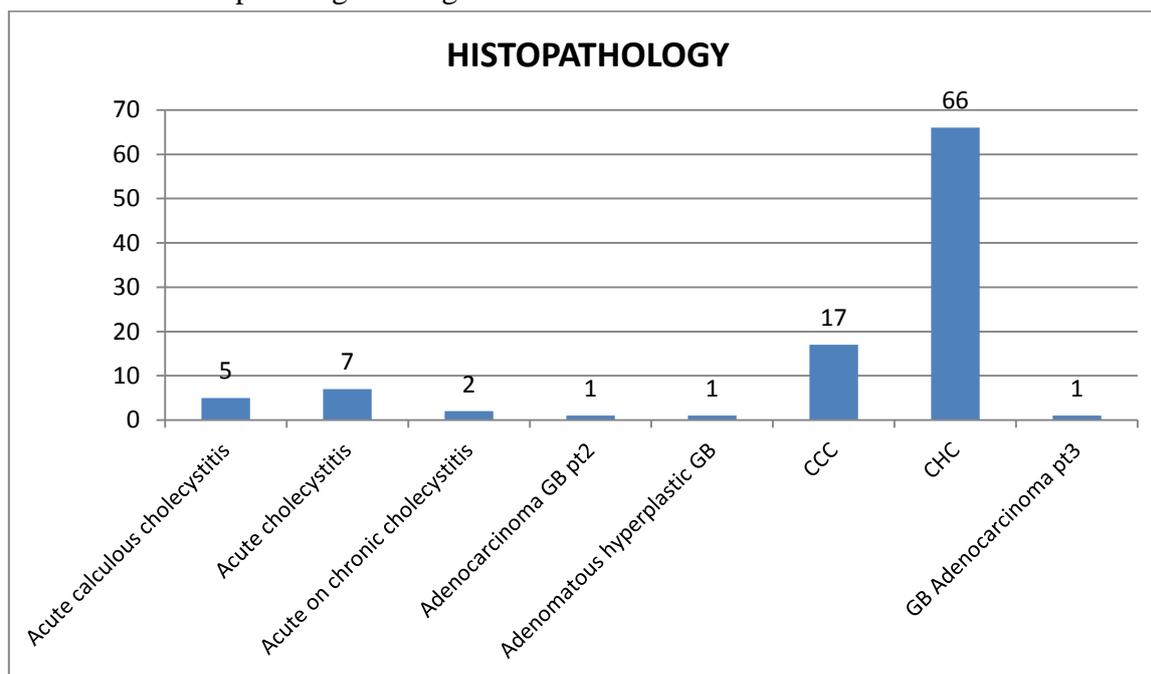
None of the cases were suspected pre or intra-operatively to have GB carcinoma despite of thorough investigation preoperatively including liver function tests, routine blood tests, USG of abdomen and pelvis in all cases and CT scan abdomen whenever required. Both the cases were adenocarcinoma. Both had associated stones. None of them had metastasis or involvement of the regional lymph nodes histologically.

Out of the 2 cases of incidental carcinoma GB, one died within a months of diagnosis due to causes unrelated to GB carcinoma and the other has still survived at a mean follow up duration of 24 months. The details of the 2 cases of incidental carcinoma GB has been described in Table 3.

**Table 1** Histopathological findings of all cases

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Acute calculouscholecystitis	5	5.0	5.0	5.0
	Acute cholecystitis	7	7.0	7.0	12.0
	Acute on chronic cholecystitis	2	2.0	2.0	14.0
	Adenocarcinoma GB pt2	1	1.0	1.0	15.0
	Adenomatous hyperplastic GB	1	1.0	1.0	16.0
	CCC	17	17.0	17.0	33.0
	CHC	66	66.0	66.0	97.0
	GB Adenocarcinoma pt3	1	1.0	1.0	100.0
	Total	100	100.0	100.0	

**Table 2.** Incidence of histopathological diagnoses



**Table 3** Chart of patient with positive incidental gall bladder carcinoma & final outcome

Age/Gender	Clinical Presentation	Laboratory data	Sonography	Operative open/ lap emerge/ elective	Operative findings	Pathology	Treatment/ Follow-up	Suspicious operative findings
70/M	Right hypochondrial pain	LFT, serum amylase, lipase Normal	Cholecystitis	Elective open cholecystectomy	Gall stones	moderately differentiated adenocarcinoma	Started chemotherapy/ died in 25 days	Thickened GB adherent to liver
23/F	Right hypochondrial pain	LFT, Serum amylase, Lipase Normal	Cholelithiasis	Elective lap cholecystectomy	Gall stones	Moderately differentiated adenocarcinoma	Radical Surgery/ alive	Thickend GB Adherent To liver

**Conclusion**

We found the incidence of incidental gall bladder carcinoma in our population to be 2%. This study recommends that all cholecystectomy specimens should be subjected to routine histopathological examination as they help in detection of cases of occult carcinoma GB. This study also suggests that although primary carcinoma of gall bladder are known for late presentation and poor survival rates; occult carcinoma GB diagnosed histopathologically of post-cholecystectomy specimen are usually detected at an early stage and thus will have better prognosis.

**Conflicts of Interest: Nil**

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