



“EVALUATION OF INCIDENTAL FINDINGS OF TUMOUR IN CHOLECYSTECTOMY CASES IN NORTHERN INDIA: A HOSPITAL BASED STUDY”

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ABSTRACT

Cholecystectomies for gallbladder diseases are the most commonly performed surgeries in daily practice in surgical clinics. Our aim was to incidental findings of tumour in cholecystectomy cases after histopathological examination. In all cases of cholecystectomy for gallstone disease, the gallbladder should be opened and examined in detail for macroscopic abnormalities. histopathological examination of gallbladder materials is important for incidental tumour diagnosis.

KEYWORDS : Incidental gallbladder disease & routine surgical pathology

Introduction:

Cholecystectomies for gallbladder diseases are the most commonly performed surgeries in daily practice in surgical clinics.¹ Gallbladder is one of the organs having a wide spectrum of diseases ranging from congenital anomalies, calculi and its complications, non-inflammatory, inflammatory to the neoplastic lesions. Histopathological variants of gall bladder diseases includes non neoplastic and neoplastic conditions. Non neoplastic conditions are chronic calculous cholecystitis, acute calculous cholecystitis, acute acalculous cholecystitis, eosinophilic cholecystitis, follicular cholecystitis, xanthogranulomatous cholecystitis, cholecystitis granuloma, ceroid granuloma. Benign tumor and tumor like conditions are cholesterol polyps, adenomatous hyperplasia, papillomas, adenomas, paraganglioma etc. Malignancies of gall bladder includes most commonly adenocarcinoma and rarely adenosquamous carcinomas, squamous cell carcinoma, small cell carcinoma and sarcomas. Gallstone disease affects 10-15% of the western population,^{2,3} with an annual incidence of 1 in 200.² Indian studies have revealed a prevalence of 6.12%,⁴ being more common in women (9.6%) than men (3.1%).⁴ However, only 1-4% become symptomatic every year,^{2,3} needing further treatment. Laparoscopic cholecystectomy is the current gold standard for treatment of symptomatic gallstone disease. Our aim was to incidental findings of tumour in cholecystectomy cases after histopathological examination.

Material and methods:

The present study was conducted in the Department of Surgery & Department of Pathology, Geetanjali Medical College & Hospital, India, during the period from January 2008 to December 2008. The study protocol was approved by the Ethics committee of Geetanjali Medical College & Hospital. Age, gender, year of surgery, diagnosis (chronic cholecystitis, acute cholecystitis, non-neoplastic lesions, neoplastic lesions, lymphomas) and presence of stones were recorded from the pathology reports. The cases were categorised on the basis of the year of surgery. The size of the gallbladder, wall thickness, presence of stones, changes observed in mucosa and presence of lesions were recorded using macroscopic examination of cholecystectomy materials. One sample each was routinely taken from the gallbladder neck, body and fundus for examination. In patients suspected of having lesions, sampling was also performed in the suspicious areas. Haematoxylin and eosin-stained slides were examined using a light microscope. Additional immunohistochemical staining was also performed when necessary. Cancer cases were classified according to the 2010 World health organization classification.⁵

Result and Discussion:

In the present study, Pathology reports of 61 patients were examined in this study. These included 42(68.8%) females and

19(31.1%) males underwent cholecystectomy for gallstone disease during the study period. Out of the 61 cases studied, 16 cases were diagnosed with incidental gall bladder disease during routine investigation for pregnancy, ureteric colic, dysfunctional uterine bleeding and incisional hernia. Out of this 16 cases 4 patients were male and 12 patients were female. The patients underwent Laparoscopic cholecystectomy. One case was converted to open cholecystectomy and one case were reoperated with wide excision after diagnosis of carcinoma. On histopathological examination all cases were diagnosed as chronic cholecystitis except two diagnosed as Adenocarcinoma of gall bladder.

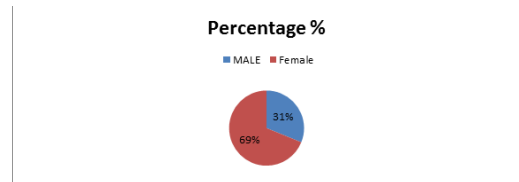


Fig-1: Showing the sex distribution:

Table -1: Showing Age Distribution Of Gall Bladder Diseases:

Age Group	No of Cases
<18	4
19-29	9
30-39	12
40-49	16
50-59	10
50-59	6
>60	4
Total	61

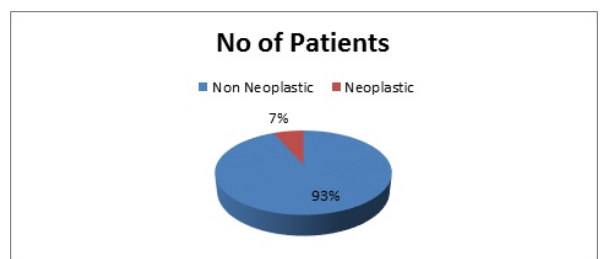


Fig-2: Showing the number of Neoplastic and Non Neoplastic patients:

Table -2: showing the histomorphological variants of gall bladder diseases:

Histomorphological Variants	Number of Cases	Percentage
Chronic Calculous Cholecystitis	49	80.32%
Follicular Cholecystitis	-	-
Acute Calculous Cholecystitis	1	2.04%
Acute Acalculous Cholecystitis	-	-
Chronic Cholecystitis With Evidence Of Cholesterosis	4	6.55%
Chronic Cholecystitis With Evidence Of Intestinal Metaplasia	1	2.04%
Xanthogranulomatous Cholecystitis	2	3.27%
Chronic Cholecystitis With Dysplastic Changes	1	2.04%
Chronic Cholecystitis With Nonspecific Lymphadenitis	1	2.04%
Adenocarcinoma Of Gall Bladder	2	3.27%

cholecystitis with evidence of cholesterosis (6.55%), Xanthogranulomatous cholecystitis (3.27%), chronic cholecystitis with evidence of dysplastic changes (2.04%), chronic cholecystitis with non specific lymphadenitis (2.04%). Studies have also been reported that majority of the non neoplastic lesion of the gall bladder occurred in 3rd and 4th decades,^{6,7} which is similar to our studies (Table-1). Chronic cholecystitis occurs after repeated episodes of acute cholecystitis and is almost always due to gallstones.¹³ Chronic cholecystitis may be asymptomatic, may present as a more severe case of acute cholecystitis, or may lead to a number of complications such as gangrene, perforation, or fistula formation.^{8,9} Xanthogranulomatous cholecystitis is a rare form of chronic cholecystitis which mimics gallbladder cancer although it is not cancerous,^{10,11} It was first discovered and reported in the medical literature in 1976 by J.J. McCoy, Jr., and colleagues.^{10,12} Gallbladder cancer appears to develop from dysplastic mucosa that progress to carcinoma in situ and then to invasive carcinoma.⁶ One cases who attended surgical emergency with acute pain abdomen underwent laparoscopic cholecystectomy. Histopathological examination revealed 1(2.04%) of these cases as acute acalculous cholecystitis. Two cases (3.27%) were diagnosed on histopathological examination as Adenocarcinoma of gall bladder of which 1 (2.04%) were asymptomatic (incidental) finding on routine ultrasonography. One was a 57 year old male patients who had undergone routine USG as part of master health check up and the other was a 49 year old female. Studies have shown that incidental gallbladder carcinoma is found in about 0.5-1.1% of cholecystectomies for gall stone diseases^{3,7} which was approximate to our study (2.04%). Gallbladder cancer is the most common cause of death from biliary malignancies.⁸ The incidence of gallbladder cancer is reported to be higher in certain geographic areas, like the Karachi to Kolkata belt in the Indian subcontinent.¹⁴⁻¹⁷

Conclusion:

In all cases of cholecystectomy for gallstone disease, the gallbladder should be opened and examined in detail for macroscopic abnormalities. histopathological examination of gallbladder materials is important for incidental tumour diagnosis. We believe that the results of this study are important for determining which diseases and rare lesions should be considered in the distinctive diagnosis of gallbladder lesions.

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