ISSN: 0975-833X

Available online at http://www.journalcra.com

International Journal of Current Research
Vol. 17, Issue, 07, pp.33844-33846, July, 2025
DOI: https://doi.org/10.24941/ijcr.49215.07.2025

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

RESEARCH ARTICLE

HISTOPATHOLOGICAL PATTERNS 0F GALL BLADDER LESIONS WITH SPECIAL REFERENCE TO INCIDENTAL MALIGNANT CASES

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ARTICLE INFO

Article History:
Received 09th April, 2025
Received in revised form
21st May, 2025
Accepted 19th June, 2025
Published online 30th July, 2025

Keywords:
Gall Bladder, Cholecystitis, Cholelithiasis, Adenocarcinoma.

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ABSTRACT

Introduction: Gall Bladder is one of the most frequently received specimens in histopathology lab & its diseases may present with varied spectrum from inflammatory & non inflammatory lesions to invasive neoplasms. Gall stones are a common health problem affecting millions of people. The most common diagnosis in cholecystectomy specimens is chronic cholecystits. GB carcinoma is a rare malignancy with poor prognosis especially if diagnosed late. Hence, detailed histopathological examination of every cholecystectomy specimen is important. ***Aim and Objective:*** To evaluate different histopathological patterns of Gall bladder lesion and to record the frequency of neoplastic lesions. Material & Methods: A retrospective study of 3 years with total of 200 cases was studied. All cases that underwent cholecystectomy were included in the study. Autolysed specimens were excluded from the study. ***Result:*** Out of 200 cases, 150 cases were females and 50 males. The most common age group was 31-40 years. Chronic calculouscholecystitis was the most common histomorphological variant in the study. 5 cases of adenocarcinoma of gall bladder were also observed. ***Conclusion:*** Disease of gall bladder require prompt surgical intervention. The most common presentation is chronic cholecystitis which is established risk factor for adenocarcinoma of gall bladder. Therefore meticulous histopathological examination remains crucial in the detection of premalignant andmalignant lesions.

Citation: Dr. Tufail Ahmad Khan, Dr. Madiha Amin and Dr. Aneeta Singh. 2025. "Histopathological patterns 0f gall bladder lesions with special reference to incidental malignant cases..". *International Journal of Current Research, 17, (07), 33844-33846.*

INTRODUCTION

Gallbladder is one of the organs having a wide spectrum of diseases ranging from congenital anomalies, calculi, inflammatory, non-inflammatory to the neoplastic lesions. Histopathological variants of gall bladder diseases include non-neoplastic and neoplastic conditions. Non-neoplastic conditions are chronic calculouscholecystitis, acute calculouscholecystitis, acute acalculouscholecystitis, follicular cholecystitis, xanthogranulomatouscholecystitis etc.Malignancies of gall bladder includeadenocarcinoma and rarely adenosquamous carcinomas, squamous cell carcinoma, small cell carcinoma and sarcomas. Chronic cholecystitis and cholelithiasis is a very common health problem, all over the world affecting around 10% to 15% of the adult population living in developed countries and most prone for surgical procedure [(1).] Cholelithiasis is the most common risk factor for gall bladder carcinoma amongst various factors. [(2)] Hence Gall bladder is most commonly received specimens in any histopathology laboratory[(3)]Histopathology is the gold standard for the diagnosis of cholecystitis. Gallbladder cancer (GBC) is the most common cancer of the biliary system and the fifth most common cancer of the gastrointestinal tract [(4)]. The diagnosis of cancer as a result of examination of pathology specimens of patients who were operated on with a preliminary diagnosis of benign gallbladder diseases is called incidental GB Carcinoma (IGBC). Elderly, female patients and conversion from laparoscopic surgery to open surgery are stated as risk factors for IGBC [(5)]. IGBC accounts for 50%–70% of all newly diagnosed GBCs[(6)]. IGBCs are usually early-stage cancers [(7)]. The most effective treatment of IGBC is surgery. Gall bladder cancer (GBC) can be clinically obvious, an unexpected finding at laparotomy, detected incidentally on histologic examination or maybe missed only to present with recurrence during follow-up [(8)]. The prognosis of Gall Bladder carcinoma is very poor. It is pertinent to analyze the histopathological changes associated with the gall bladder disorders. The Aim of the study was to evaluate different

histopathological patterns of Gall Bladder lesion and to record the frequency of neoplastic lesions.

METHODS

This is a retrospective study conducted in the Department of Pathology, ASCOMS & Hospital, Jammu from May 2025 to April 2022. A Retrospective analysis of 200 cases that had underwent cholecystectomy at this Institute was done. All the cases that underwent cholecystectomy were included in the study. Autolysed specimens were excluded from this study. The surgically resected specimens were fixed in 10% neutral buffered formalin and embedded in paraffin. Three sections were taken including fundus, body and neck. Additional sections were taken wherever any growth or inconsistency was found. Haematoxylin and eosin (H&E) staining was done.

RESULTS

A total of 200 cases were studies over a period of 3 years out of which 150 cases were females (75%) and 50 cases were males (25%). The M:F ratio was 1:3 in our study. The age of the patients ranged from 12 years to 80 years. Maximum number of patients were seen in the age group of 31-40 years (30%) followed by ≥61 years (22%), 41-50 years (20%), 21-30 years (18%), 51-60 years (08%) and ≤20 years (02%). Out of 200 cases, the most common histological variant seen in our study was Chronic Calculus Cholecystitis (36%) followed by Chronicacalculouscholecystitis (34%).

Table 1 shows sex distribution.

SEX	NO. OF CASES (n=200)	PERCENTAGE
FEMALE	150	75%
MALE	50	25%

Table 2. Shows age wise distribution

AGE GROUP	NO. OF CASES	PERCENTAGE
≤ 2O YEARS	04	02%
21-30 YEARS	36	18%
31-40 YEARS	60	30%
41-50 YEARS	40	20%
51-60 YEARS	16	08%
≥ 61 YEARS	44	22%

Table 3. Showing histomorphological variants found in this study

Histomorphological variants	No. of cases (n=200)	Percentage
Chronic calculous cholecystits	72	36%
Chronic acalculous cholecystitis	68	34%
Chronic cholecystitis with evidence of cholesterolosis	20	10%
C.c with intestinal metaplasia	08	04%
Acute calculous cholecystits	06	03%
Acute on chronic cholecystitis	10	05%
Xanthogranulomatous cholecystitis	10	05%
Eosinophilic cholecystitis	01	0.5%
Adenocarcinoma	05	2.5%

DISCUSSION

In India, gall stone disease affects younger population as compared to western population with a female preponderance. In present study the maximum number of patients was younger population age group (31-40years) and the sex wise distribution showing female preponderance was noted (75%). This was in concordance to the studies done by Khan S et al.[9] In this present study, 72 cases of chronic calculouscholecystits were observed (36%). This was in discordance with the study done by Khan S et al where the number of gall stones present in the patients was 99%. This may be attributed to the fact that practice of handing over gall stones to the patients relatives was done. 5 cases (2.5%) on histopathological examination were diagnosed as Adenocarcinoma of gall bladder. All of them were found incidentally on microscopy. Studies have shown that incidental gallbladder carcinoma is found in about 0.5-1.1% of cholecystectomies for gall stone diseases [10] which was similar to our study (2.5%). Gallbladder cancer is the most common cause of death from biliary malignancies.[11]The incidence of gallbladder cancer is reported to be higher in certain geographic areas, like the Karachi to Kolkata belt in the Indian subcontinent.[12] Xanthogranulomatouscholecystitis is a rare form of chronic cholcystitis which mimics gall bladder cancer even though it is not cancerous.[13] In this study, 10 cases (5%) of xanthogranulomatouscholecystiti were seen. Similar results were obtained in the studies done by Jokhi CD et al (2.3%). [14]

CONCLUSION

Diseases of GB is always remains a major indication for cholecystectomy. Hence one can evaluate wide spectrum of histomorphologicallesions on postoperative excised specimens. Amongst various lesions we encountered, chronic calculouscholecystitis, chronic acalculouscholecystits remained the most prevalent. Also, a macroscopic absence of remarkable features does not exclude the presence of an underlying malignant lesion. So, routine histopathological examination of the resected GB specimens is mandatory in search of premalignant precursor or a malignant lesion.

Conflict of Interest: Nil

Financial Support: Nil

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