Original Article

Acalculous Cholecystitis

Clinical Presentation and Histopathological Assessment of Acalculous Cholecystitis

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ABSTRACT

Objective: To determine the clinical pattern and histopathological assessment in patients with acalculous cholecystitis.

Study Design: Descriptive case series study

Place and Duration of Study: This study was conducted at the all units of General Surgery, LUMHS, Jamshoro from January 2016 to July 2016.

Materials and Methods: Patients after diagnosis of acalculous cholecystitis through ultrasound were incorporated in the study. Patients were selected from OPD of general surgery and admitted for the cholecystectomy. Surgeries were carried out by senior general surgeons with more than 5 year experience. After surgeries all the specimen of the removal gall bladder, were sent to the laboratory from all the cases for the histopathological assessment.

Results: This study contains 49 cases with diagnosis of acalculous cholecystitis, mean age was 43.12+4.23 years. Females were found most common 59.19%. Right upper quadrant pain was the most common in 92% of the cases, following by epigastrium pain, fatty food intolerance, nausea and vomiting and others as well as feeling fatigue and abdominal discomfort were found with percentage of 51.02%, 12.24%, 30.61% and 20.40% respectively. Chronic cholecystitis was the most common histological finding in 57.14% patients, acute cholecystitis was found in 15.32%, Xanthogranulomatous cholecystitis was in 10.20%, gangrenous cholecystitis was in 4.08%, while malignancy was found only in 1 case and 2 cases were without pathology.

Conclusion: Female gender is more associated with acalculous cholecystitis; most common clinical presentation was right upper quadrant pain and most prevalent histopathological finding was the chronic cholecystitis and carcinoma was very low only in one case.

Key Words: Acalculous cholecystitis, clinical pattern, histopathology

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INTRODUCTION

Acute acalculous cholecystitis (AC) is the situation which typically happens through severe clinical status, and also relatively rare and difficult to diagnose.[1] AC is thetype of pathology in which GB wall becomes thicken.[2] Cholecystitis, presents in >10% of peoples increases with the age.[2] The commonest causes of the GB pathologies are the DM, estrogen, pregnancy, liver cirrhosis, hemolytic diseases and the obesity.[2]Though estimately 2 - 15% of acute cholecystitis may occur without the events of gallstone, and without calculus these are namedas, acalculous cholecystitis, and this condition is diagnosed through increasing frequency in critical cases and is also stated worldwide.[1,3,4]

Many clinical observations occur but are nonspecific to acalculous cholecystitis: painat right upper-quadrant, temperature elevation, leukocytosis, and some hepatic abnormal tests "aminotransferases, ALT, and the bilirubin".[3,4] Several situations predispose to its presence. It has not been likely to reliably determine the prevalence of risk factors ofAC, but several studies have listed their occurrence frequency in their cases populations.

Etiology of AC is multifactorial and likely outcomes from bile stasis or ischemia or both. Bile stasis maycausedue to fasting, obstruction, postsurgical/ procedural irritation or ileus "TPN]", those may lead to bile inspissation which is directly toxic to GB epithelium.[1,5] Ischemia to organ may occur from several risks related with systemic inflammation and could have deleterious effects directly to all the walls of GB layers.[6,7] It is observed that current practice is not to send cholecystectomy specimen, in really all cases, for histopathology; solely relaying upon gross examination of the tissues to avoid additional financial burden on patients' family.[8] Therefore aim of this study to determine the histopathological evaluation in patient with acalculous cholecystitis.

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MATERIALS AND METHODS

This descriptive case series study had done at LUMHS in the all units of general surgery Jamshoro. Study duration was 7 months from January 2016 to July 2016. Patients after diagnosis of calculus cholecystitis through ultrasound were incorporated in the study. Patients were selected from OPD of general surgery and admitted for the cholecystectomy. After admission all the required laboratory investigation were carried out. Ultrasound was repeated in all the cases after admission. Complete clinical examination was carried out. After complete preoperative workup cases prepared for the cholecystectomies. Surgeries were carried out by senior general surgeons with more than 5 year experience. After surgeries all the specimen of the removal gall bladder, were sent to the laboratory from all the cases for the histopathological assessment. All the information regarding patients clinical presentation and histopathological findings were recorded in the proforma. For results analysis data was entered in the SPSS program version 20.

RESULTS

This study was contains 49 cases with diagnosis of acalculous cholecystitis, mean age was 43.12+4.23 years. Male were found in most common 59.19%, while female were 40.81%. History of disease duration less than 5 years in 71.42% and 28.58% patients has disease more than 5 years. Table:1.

Right upper quadrant pain was the most common in 92% of the cases, following by epigastrium pain, fatty food intolerance, nausea and vomiting and others as well as feeling fatigue and abdominal discomfort were found with percentage of 51.02%, 12.24%, 30.61% and 20.40% respectively. Figure 1.

Table No. 1: Basic characteristics n=49

Basic variables	Frequency/%
Age (mean±SD)	43.12+4.23 years
Gender	
Male	29/59.19%
Female	20/40.81%
Disease duration	
Less than 5 years	35/71.42%
More than 5 years	14/28.58%

Table No.2: Histopathological pattern n=49

Histopathology	Frequency (%)
Chronic cholecystitis	26(57.14%)
Acute cholecystitis	08(15.32%)
Xanthogranulomatous	05(10.20%)
Gangrenous cholecystitis	02(4.08%)
Malignancy	01(2.04%)
Normal	02(4.08%)
Others	06(12.24%)

Chronic cholecystitis was the most common histological finding in 57.14% patients, acute cholecystitis was found in 15.32%, Xantho-granulomatous cholecystitis was in 10.20%, gangrenous cholecystitiswas in 4.08%, while malignancy was found only in 1 case and 2 cases were without pathology. Table 2.

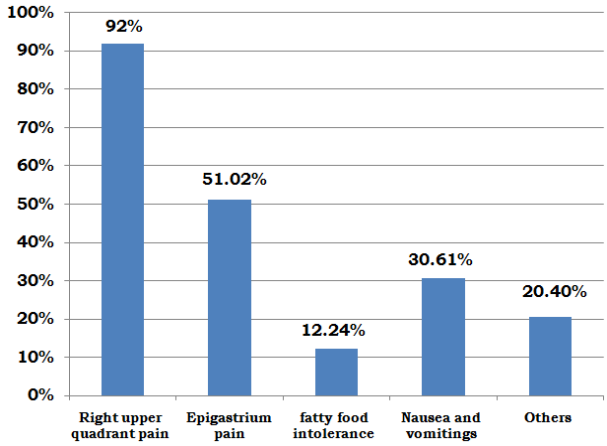

Figure No.1: Clinical pattern n= 49

DISCUSSION

This study was contains 49 cases with diagnosis of acalculous cholecystitis, mean age was 43.12+4.23 years. Male were found in most common 59.19%, while female were 40.81%. History of disease duration less than 5 years in 71.42% and 28.58% patients has disease more than 5 years. Comparable findings were found in the study of Siddiqui FG et al[9] reported that 193 were females and 27 were males with ratio f1:7. Meanage was 32.3±5.3 years with range 19 - 80 years. On other hand Soomro AG et al[8] reported that 79 were males and 442 were females and mean age was 47 years with range of 7-75 years. While Gelani et al[10] also reported comparable mean age as well as 42.7 years.

In this study commonest clinical presentation was right upper quadrant pain in 92% of the cases, following by epigastrium pain, fatty food intolerance, nausea and vomiting and others as well as feeling fatigue and abdominal discomfort were found with percentage of 51.02%, 12.24%, 30.61% and 20.40% respectively. In the comparison of our study Ghimire P et al[11] reported that the main presentation was the epigastrium pain in 70.11% patients, and dyspepsia in 62.84% patients, nausea was in 56.96% and anorexia was in 44.57% of the cases. Pain at right hypochondrium, radiating to epigastrium and scapula, presents the condition onset. Elevated temperature, vomiting and nausea may occur in 70% of the cases.[12] Abscesses formation; GB gangrene should raise suspicions in occurrence of elevated temperature, leukocytosis and peristalsis decreasese.[12] Subsequently several of these symptoms are often observed in the cases having severe conditions, who needed sedation, clinical consideration may impaired, therefore impeding rapid diagnosis.[12]

Some other studies[13,14] reported such elevated temperature, vomiting and nausea, altered mental status, dyspepsia and the occurrence of jaundice may occur, but these very nonspecific presentations in patients with a calculus cholecystitis.

In our study chronic cholecystitis was the most common histological finding in 57.14% patients and acute cholecystitis was found in 15.32%. Similarly Talreja V et al[15] found matching results and reported that chronic cholecystitis was the most common and noted in the 756 cases and acute was in the 61 cases. On other hand, Kumar H et al[16] demonstrated that from histopathological assessment commonest finding was chronic cholecystitis in 66.75% cases. We found xanthogranulomatous cholecystitis in 10.20%, gangrenous cholecystitis was in 4.08% and 2 cases were without pathology. Similarly Kumar H et al[16] stated that gangrenous cholecystitis in the 2.25% cases, xanthogranulomatous cholecystitis only in the 0.50% cases, empyema in 1%, and adenocarcinoma in 1.25% and 1% were normal gallbladders. Talreja V, et al[15] mentioned other histological results as anthogranulomatous cholecystitis in the 12 patients and gall bladder carcinoma was in the 11(1.14%) patients. Similarly we found in this study malignancy of gall bladder specimen only in 1 case. Mukhopadhyay S et al**[17]** reported that intestinal metaplasia was in the 9.8% cases and dysplasia was found in the 5% of the patients. Chronic inflammation containing GB may develop the dysplasia, and consequent progression of the GB carcinoma.

CONCLUSION

Female gender is more associated with acalculous cholecystitis; most common clinical presentation was right upper quadrant pain and most prevalent histopathological finding was the chronic cholecystitis and carcinoma was very low only in one case. More research is required to more conformed assessment of acalculous gallbladder carcinoma.

Conflict of Interest: The study has no conflict of interest to declare by any author.

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