(International Print/Online Journal)

SJIF IMPACT FACTOR: 5.565
PUBMED-National Library of Medicine ID-101739732

ISSN (Print): 2209-2870
ISSN (Online): 2209-2862

International Journal of Medical Science and Current Research (IJMSCR)
Available online at: www.ijmscr.com
Volume 5, Issue 2, Page No: 213-215
March-April 2022

IJMSCR

Hyalinizing Cholecystitis: A rare histomorphology

Dr. Manjari Kishore[1], Dr. Rashmi Gautam[2], Dr. Arun Chaudhary[3], Dr. Sarita Devdhar[4]
Assistant Professor[1], Associate Professor[2], Professor & Head[3], Professor[4]
Dept. of Pathology, Noida International Institute of Medical Sciences (NIIMS)
Noida International University (NIU), Greater Noida, U.P.

***Corresponding Author:**
Dr. Manjari Kishore
Assistant Professor, Dept. of Pathology,
Noida International Institute of Medical Sciences (NIIMS)
NIU, Greater Noida, U.P.

Type of Publication: Case Report
Conflicts of Interest: Nil

Abstract
Hyalinizing cholecystitis (HC) is a rare subtype of chronic cholecystitis. It accounts for approximately 1.6% of all cholecystectomy specimens.[1-2] It is seen in association with carcinoma gall bladder or with immunoglobulin-G4 related disease.[3-4] Hence, a detailed histopathological evaluation is must to correctly diagnose this entity thereby negating the presence of any underlying malignancy. We present a case of a 54-year-old male who came with pain in right upper abdominal region along with vomiting. Radiology indicated the presence of gall stones. Surgery was done and a diagnosis of Hyalinizing cholecystitis was given on histopathology. No malignancy was found in our case.

Keywords: Chronic cholecystitis, carcinoma gall bladder, gall stones, hyalinization, histopathology.

Introduction

Gall bladder stones and chronic cholecystitis are most common pathologies noted in gall bladder.[1-2] Hyalinizing cholecystitis (HC) is an uncommon subtype of chronic cholecystitis.[2-3] It is described as replacement of the entire gall bladder wall with diffuse and dense hyaline sclerosis. It can also be associated with variable degree of calcification. This is commonly seen in female and accounts for a total of 1.6% of all cholecystectomy specimens.[2-4]

Diagnosing HC is important as it is associated with underlying malignancy in few cases, as reported in literature.[3-6] Hence, it becomes mandatory to extensively examine the histological sections to arrive at a correct diagnosis of this rare subtype.

Case report:

A 54-year-old male presented to hospital with chief complaints of pain abdomen in right upper region along with vomiting. There was no history of any chronic illness or any other significant medical or surgical history in the patient.

Routine blood investigations including complete blood count, biochemical parameters like blood sugar, lipid profile, liver function tests were all within normal limits. Ultrasound abdomen revealed presence of gall stones in the patient along with Grade-1 fatty liver changes. Cholecystectomy was done and the specimen was sent for histopathological evaluation.

On gross, cholecystectomy specimen was received measuring 10.5x4 cm. External surface appeared unremarkable and showed focal-grey, brown areas. On cut section, a single large cholesterol stone was identified. Mucosa was completely denuded with wall thickness measuring 0.6 cm.

H&E-stained sections were examined and showed markedly denuded epithelial lining. Focally preserved epithelium showed focal reactive changes [Figure 1A-B]. All the layers of gall bladder were replaced by hyaline fibrosis showing variable degree of chronic inflammatory cell infiltrate composed of lymphocytes, plasma cells and eosinophils [Figure 1C]. Attached liver bed at serosal surface was composed of cords of hepatocytes with moderate periportal inflammation [Figure 1D]. No atypical cells or any metaplasia, dysplasia or malignancy was seen in any of the extensive sections examined. A diagnosis of Hyalinizing cholecystitis with cholelithiasis was made.

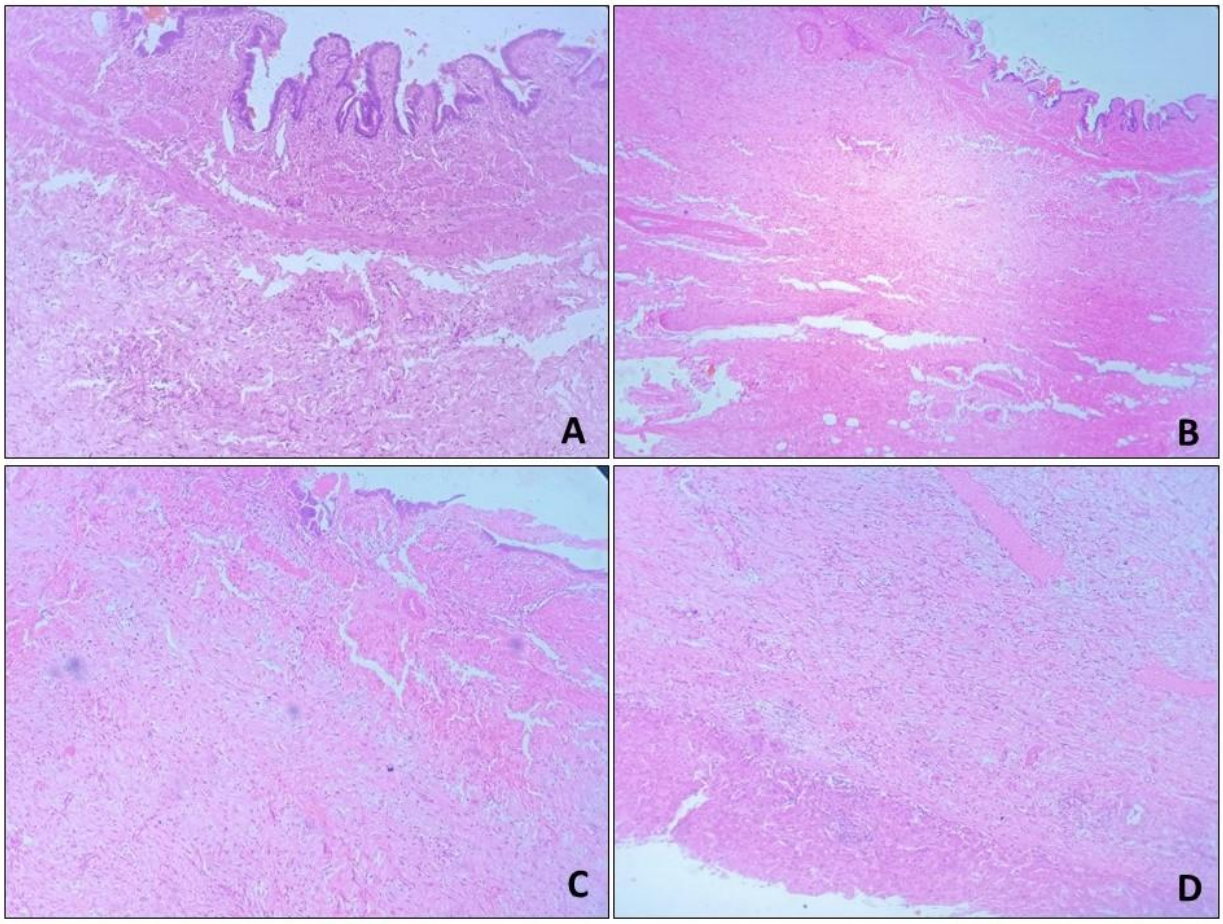

Figure 1: A-C: Sections from gall bladder showing unremarkable epithelial lining with sub-epithelium exhibiting extensive hyalinization, replacing the normal morphology [H&E, 20X]; D: Section showing normal liver bed below the hyalinized area [H&E, 20X].

Discussion:

Hyalinizing cholecystitis is a histomorphological subtype of chronic cholecystitis. It is a recently acknowledged entity, characterized by replacement of the normal gall bladder histology with diffuse, dense hyaline sclerosis.[2-4]Variable degree of calcification can be present. HC is a rare subtype and noted in 1.6% of total cholecystectomies. It is usually seen in females; however, we reported this entity in a 54-year-old male. The significance of this entity is because of its association with an underlying malignancy with more aggressive clinical behavior. Patel S. et al[3], in their study noted a very high association of malignancy with HC (15%) and odds ratio for risk of cancer of 4.6%. Gupta et al[4], also noted the association of HC with IgG4 related disease.

On histology, there is dense laminar, paucicellular or acellular hyalinizing fibrosis of gall bladder wall replacing almost the entire normal histological morphology of gall bladder. No mucosa or muscularis layer is identified clearly. Variable degree

Volume 5, Issue 2; March-April 2022; Page No 213-215

of lymphoplasmacytic infiltrate may be noted in the wall. Calcification may or may not be seen. We did not notice presence of any calcification in our case.

Various studies have demonstrated the risk factor of carcinoma gall bladder in association with HC.[3-6]The median survival for malignancies associated with HC is usually shorter than those of usual malignancies of gall bladder.[4-6]Making a definitive diagnosis of HC on histology is challenging as no growth is visible and there is no obvious thickening of the gall bladder wall.

To add to the complexity, due to extensive hyalinization, very few glands are visible embedded in the hyalinized stroma.[5-6] This makes the finding of any underlying malignancy very difficult, thereby requiring extensive grossing and sectioning of the gall bladder tissue. Hence, any glandular element if present in these hyalinized stroma should be carefully examined for any suspected malignancy. In our case, even on extensive histopathological examination, no malignancy was detected.

Conclusion:

Hyalinizing cholecystitis is an uncommon histological pattern noted. Its association with malignancy is common with an aggressive clinical behavior. As grossly no thickening or any definitive mass is noted in the wall of gall bladder, extensive & careful histological evaluation is must to detect any foci of malignancy.

References:

1. Stephen AE, Berger DL. Carcinoma in the porcelain gall bladder: a relationship revisited. Surgery 2001;129:699-703.
2. Kapoor V.K., McMichael AJ. Gall bladder cancer: An Indian disease. The National Medical Journal of India 2003;16(4):209-13.
3. Patel S, Carlos JR, Tapia O, Dursun N et al. Hyalinizing cholecystitis and associated carcinomas: clinical analysis of a distinctive variant of cholecystitis with porcelain-like features and accompanying diagnostically challenging carcinoma. Am J Surg Pathol2011;35:1104-13.
4. Gupta RK Patton KKT. Hyalinizing cholecystitis with features of IgG4 related disease- coincidence of unrecognized? A case report. Human Pathology 2015:1-4.
5. Hasan M, Saeed N, Barkatullah I. Hyalinizing Cholecystitis: A rare subtype of chronic cholecystitis. Int Arch Biomed Clin Res 2017; 3(2):7-8.
6. Kang Y, Chae YS, Lee Y, Kim D et al. Hyalinizing Cholecystitis and associated carcinoma: A case report. Journal of Pathology and Translational Medicine 2018;52:64-66.

Volume 5, Issue 2; March-April 2022; Page No 213-215