

Hyalinizing Cholecystitis: A Rare Subtype of Chronic Cholecystitis

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ABSTRACT

Hyalinising cholecystitis is rare form of chronic cholecystitis. It comprises about 1.6% of the cholecystectomy specimens. Hyalinising cholecystitis is said to be associated with risk of gallbladder cancer. We hereby present a case of a 54-year-old woman who came with chief complain of pain in right upper abdomen. She was diagnosed as a case of chronic cholecystitis on ultrasonography. For this the patient underwent cholecystectomy during which the gallbladder was removed. The final diagnosis of hyalinising cholecystitis was given on histopathology.

Key words: *hyalinising cholecystitis, chronic cholecystitis, histopathology*

INTRODUCTION

Chronic cholecystitis is a very common disease in North Indian population specially in females.^[1] Gall bladder carcinoma is also a common biliary malignancy in North India in comparison to other parts of India.^[2] However hyalinizing cholecystitis is rare subtype of chronic cholecystitis, histopathologically characterised by dense paucicellular hyalinizing fibrosis of gall bladder wall and complete exclusion of normal histologic elements, transforming gall bladder wall into complete hyalinizing fibrosis.^[3] This lesion is rare and reported in only 1.6 % cholecystectomy specimens.^[4] It is more common in female and its identification is very important because it is associated with malignancy. In a study done by Patel S et al in 2011 the frequency of carcinoma in hyalinizing cholecystitis was estimated as 15 % and odds ratio for cancer risk was 4.6.^[3]

CASE REPORT

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54-year-old women presented with recurrent right upper abdominal pain. Pain was radiating towards inferior tip of shoulder. It was also associated with episodes of indigestion. Then patient was advised ultrasonography of abdomen. Considering clinical examination and findings of sonography, the diagnosis of chronic cholecystitis was made and cholecystectomy was performed. The specimen was sent for histopathological examination. Grossly there were two soft tissue pieces measuring 4.5×4 cm and 1.5×1.5 cm respectively. The outer surface was dull and congested while mucosa was atrophied. Maximum wall thickness was 0.4 cm and cut section of larger soft tissue piece was giving gritty sensation. Hematoxylin and eosin stained section showed dense paucicellular hyalinizing fibrosis of gall bladder wall in such a way that it has destroyed the complete histological pattern of gall bladder wall and transformed the gall bladder wall into a thin, uniform band of hyaline fibrosis (Fig 1). Areas of calcification and foci of lymphocytic infiltration were also seen in the submitted section. There was no atypia or any other sign of dysplasia, metaplasia or malignancy was seen. Keeping in mind all of the gross and microscopic findings the diagnosis of hyalinizing cholecystitis was made.

DISCUSSION

Hyalinizing cholecystitis is an unusual and rare subtype of chronic cholecystitis with only one retrospective study of case series by Patel S et al in 2011.^[3] Hyalinizing cholecystitis is defined by dense, laminar, paucicellular or acellular hyalinizing fibrosis of gall bladder wall that completely efface the normal histological pattern and structures of gall bladder wall and transform it into a relatively thin, uniform and fibrosed band in such a way

that virtually no mucosa or muscularis layer is identified.^[3] Mild lymphoplasmocytic infiltration may be seen in the wall. It may or may not be associated with calcification. If calcification is seen, then it may present in mucosa, muscle layer or in both.^[4] However in our case neither mucosal nor mural calcification was seen. Although hyalinizing cholecystitis in its pure form is recently described but surgeons and radiologists are referring similar cases with diffuse calcification as porcelain gall bladder which was often have direct link with gall bladder carcinoma.^[5,6]

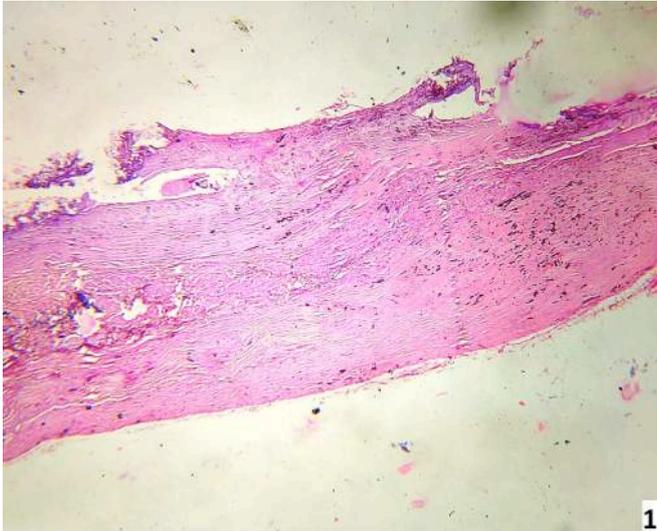


Fig 1. Section from the gallbladder shows dense hyalinization and fibrosis of the wall with ulcerated mucosa. (H&E 40X)

Hyalinizing cholecystitis is strong risk factor of carcinoma gall bladder. In a retrospective study done by Patel S et al in 2011, they found that frequency of carcinoma gall bladder in hyalinising cholecystitis was 15% and odds ratio of cancer risk was 4.6.^[3] Diffusely calcified gall bladder is at less risk as compared to incompletely calcified gall bladder.^[7] Diagnosing malignancy in hyalinising cholecystitis is very challenging because grossly no visible growth or thickening of gall bladder wall is seen and microscopically suspected glands are very few, well

hidden, embedded in hyalinised stroma and unaccompanied by cellular desmoplasia.^[3] Thus any glandular unit in hyalinised and fibrosed tissue in hyalinising cholecystitis should be suspected for invasive carcinoma.

CONCLUSION

Hyalinizing cholecystitis is a rare subtype of chronic cholecystitis having frequency of 1.6% and characterized by dense paucicellular or acellular hyalinizing fibrosis of gall bladder wall. It is strongly associated with carcinoma gall bladder and due to fibrosis malignancy may be hidden. Thus it is very important to carefully examine the specimen of gall bladder showing features of hyalinising cholecystitis.

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