

XANTHOGRANULOMATOUS CHOLECYSTITIS: PRESENTING AS GALL BLADDER MASS

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ABSTRACT

BACKGROUND

Xanthogranulomatous cholecystitis (XGC) is a rare presentation of chronic cholecystitis, characterized by destructive inflammatory process with accumulation of lipid laden macrophages (Foam cells), fibrous tissue and acute and chronic inflammatory cells. Patients with XGC are frequently misdiagnosed preoperatively as having carcinoma of the gallbladder. This article reports on a 45 years old woman with XGC who presented as mass right hypochondrium. Preoperative USG and CT showed gall bladder wall thickening presenting as a gall bladder mass that mimicked gall bladder carcinoma, but FNAC showed features of XGC. XGC has characteristic cytologic features that can be used to differentiate it from malignancy, which XGC can mimic clinically and radiologically. Preoperative FNAC in such cases would help to guide the surgeon toward a correct surgical approach.

KEYWORDS

Xanthogranulomatous Cholecystitis, Carcinoma Gall Bladder, Foam Cells.

HOW TO CITE THIS ARTICLE: Singh S, Walia DS, Sharma A, et al. Xanthogranulomatous cholecystitis: presenting as gall bladder mass. J. Evolution Med. Dent. Sci. 2016;5(29):1504-1505, DOI: 10.14260/jemds/2016/354

INTRODUCTION

Xanthogranulomatous cholecystitis is a rare inflammatory disease of the gallbladder characterized by a focal or diffuse destructive inflammatory process with accumulation of lipid laden macrophages (Foam cells), fibrous tissue and acute and chronic inflammatory cells.^[1] Its importance lies in the fact that XGC, a benign condition exhibits similar imaging and intraoperative findings as those of Gallbladder (GB) cancer, leading to its frequent misdiagnosis.^[2] It is difficult to differentiate XGC from gallbladder carcinoma by the conventional imaging techniques of ultrasonography, Computed Tomography (CT) and Magnetic Resonance Imaging (MRI). Preoperative FNAC in such cases may differentiate between these conditions and guide the surgeon toward a correct surgical approach. We report a case of XGC presenting as GB mass mimicking GB carcinoma, but preoperative FNAC helped to differentiate it from GB carcinoma and helped in guiding towards a correct surgical approach avoiding radical resection.

CASE HISTORY

A 45 years old female presented in surgical outdoor with chief complaints of intermittent pain, right hypochondrium for 6 yrs. History of anorexia and significant weight loss also present. On examination, a hard mass was palpable in right hypochondrium. Ultrasonography showed cholelithiasis with thickened gall bladder wall in fundus region infiltrating the liver (? mass).



Fig. 1: CT Scan Image showing Loss of Interface between Gall Bladder and Liver Parenchyma Adjacent to Fundal region of Gall Bladder

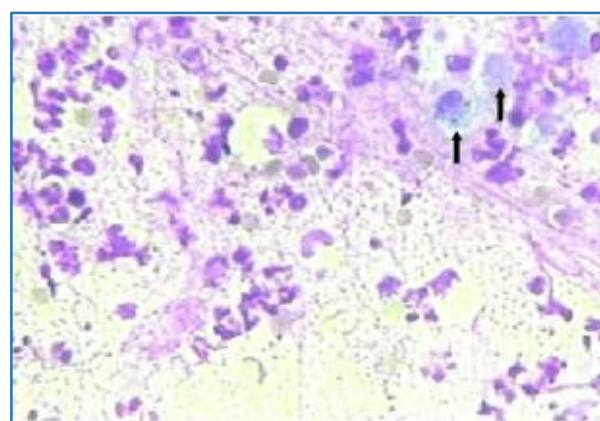


Fig. 2: FNAC showing Degenerated Neutrophils and Foamy Macrophages (See arrows) suggestive of Xanthogranulomatous Cholecystitis

Financial or Other, Competing Interest: None.

Submission 18-02-2016, Peer Review 16-03-2016,

Acceptance 21-03-2016, Published 11-04-2016.

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DOI: 10.14260/jemds/2016/354



Fig. 3: Gross Examination of Specimen showing Thick Walls, Yellowish Mass Infiltrating the Walls and Multiple Gallstones

Contrast enhanced CT showed the wall of gall bladder is deficient in region of fundus with loss of interface between gall bladder and liver parenchyma adjacent to fundal region of gall bladder in segment five of right lobe of liver (Figure 1). No lymphadenopathy was detected. The result of laboratory examination showed no significant abnormality. CT guided FNAC of GB mass was performed, which showed inflammatory infiltrate and foamy macrophages suggestive of xanthogranulomatous cholecystitis (Figure 2). We diagnosed the lesion preoperatively as xanthogranulomatous cholecystitis. Open cholecystectomy was performed. Intraoperative findings revealed transverse colon adherent to gall bladder. Gall bladder was embedded in hepatic bed and dense adhesions were present. Gross examination of specimen revealed thick walls, yellowish mass infiltrating the walls and multiple gallstones (Figure 3). Microscopic examination revealed hypertrophic fibromuscular layer with inflammatory infiltrate containing foamy macrophages. No evidence of malignancy was seen. These features were suggestive of diagnosis of XGC. Recovery on follow-up was satisfactory. No complications were observed.

DISCUSSION

XGC is an unusual inflammatory disease of the gallbladder manifested by abnormal thickening of the wall. It was first reported and named by McCoy in 1976 and described as a distinct pathological condition by Goodman and Ishak in 1981.^[3] It is a variant of cholecystitis characterized by intense acute or chronic inflammation, severe proliferative fibrosis with formation of multiple yellow-brown intramural nodules and foamy histiocytes. It is speculated that XGC may result from extravasation of bile into the gallbladder wall from rupture of occluded Rokitansky-Aschoff sinuses or through small ulceration in the mucosa. This further attracts histiocytes to phagocytize the insoluble cholesterol. The macroscopic appearance is of a poorly defined, nodular yellow mass that infiltrates the wall of the gallbladder. Histologically, it consists of a mixture of ceroid (Wax-like) xanthogranuloma with foamy histiocytes, multinucleated foreign body giant cells, lymphocytes and fibroblasts containing areas of necrosis. The inflammatory process often extends into neighbouring organs, such as the liver, omentum, duodenum and colon.^[4]

The clinical importance of XGC lies in the fact that it can be confused radiologically with a gallbladder carcinoma. Several reports demonstrated the radiological features of XGC. However, as some are nonspecific, it is often difficult to distinguish XGC from gallbladder carcinoma by the conventional imaging techniques of ultrasonography, CT and MRI.^[5] Moreover, the fact that XGC can infrequently be associated with gallbladder carcinoma makes the differentiation more difficult.^[6,7] Consequently, patients with XGC have sometimes undergone excessive surgical resection with preoperative diagnosis of advanced gallbladder carcinoma.^[2]

FNAC plays an important role in making the preoperative diagnosis of adenocarcinoma and XGC. A preoperative FNAC diagnosis would help in determining the urgency of treatment and in planning for the surgical procedure in gallbladder lesions. Cholecystectomy is the first choice for XGC, either complete or partial.^[8,9]

In our case, radiological imaging and clinical features suggested diagnosis of carcinoma gall bladder, but FNAC showed features of XGC. So in our opinion, only going by radiological imaging and clinical features would have resulted in treatment by extensive surgical resection. But FNAC guided in planning of surgical procedure and open cholecystectomy was performed. Biopsy confirmed the diagnosis of XGC.

XGC has characteristic features on FNAC that can be used to differentiate it from malignancy. We should also consider the possibilities of false-negative and false-positive results.

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