

# Xanthogranulomatous Cholecystitis

Vijaya Gattu<sup>1</sup>, Suhela R<sup>2</sup>, K.P.A.Chandrasekhar<sup>3</sup>

<sup>1</sup>Assistant Professor, <sup>3</sup>Profesor & Head, Department of Pathology, SVS Medical College, Mehabubnagar, Telangana, <sup>2</sup>Assistant Professor, Department of Pathology, Chalmeda Anand Rao Institute of Medical Sciences, Karimnagar, Telanagana.

Address for correspondence: Dr Vijaya Gattu, Assistant Professor, Department of Pathology, SVS Medical College, Mehabubnagar, Telangana, India.

Email : vijjupatho@gmail.com

## ABSTRACT

Xanthogranulomatouscholecystitis (XGC) is a rare variant of cholecystitis and reported incidence of XGC varies from different geographic region from 0.7% -9%. Most of the clinicians are not aware of the pathology and less evidence is available regarding the optimal treatment of this less common form of cholecystitis in the present era of laparoscopic surgery.

**Keywords:** Xanthogranulomatous cholecystitis, cholecystectomy, nodule, laparoscopy

## INTRODUCTION

Xanthogranulomatouscholecystitis is a rare variant of common pathology of gallbladder. XGC develops as a process of intense acute or chronic inflammation, characterized by asymmetrical thickening of gallbladder wall with formation of nodule.<sup>1</sup>

The dense inflammation is responsible for dense adhesion to the surrounding viscera, therefore, the condition has been related to difficult cholecystectomy.<sup>2</sup>The clinical features could be of chronic or acute cholecystitis and the radiological imaging could mimic gallbladder carcinoma with mass in the wall. The reported incidence of XGC varies from different geographic region from 0.7% -9%.<sup>3</sup>

## CASE REPORT

A 46 year female came with right sided abdominal pain from 2 months duration and ultrasound abdomen revealed calculous gall bladder and she undergone a laproscopic cholecystectomy.

Grossly,the gall bladder was congested,edematous soft yellow with a thickened wall measuring 10x5x5cms. Histopathological examination revealed a dense fibrous thickening of gall bladder with granuloma formation and there was xanthogranulomatous reaction seen with many foamy macrophages and giant cells.Fig(1,2,3&4).

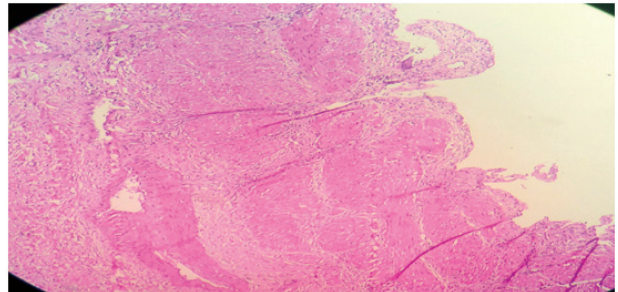


Fig 1: Section showing thickened gall bladder wall with giant cell [H&E,x10]

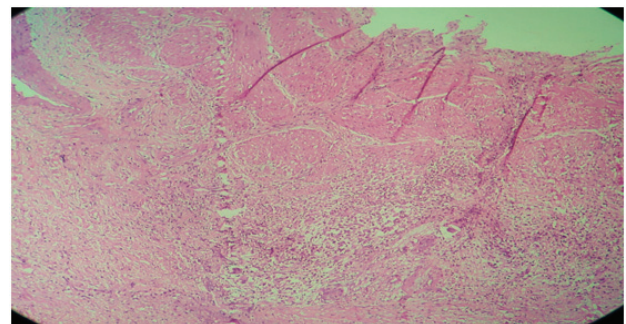


Fig 2. Section showing granuloma [H&E,x10]

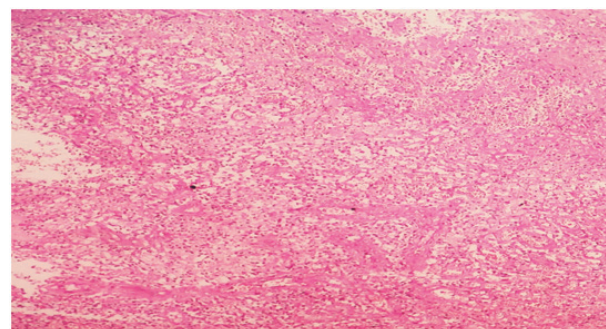
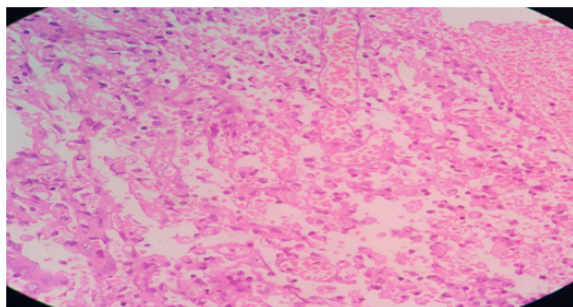


Fig 3.Section showing xanthogranulomatous region [H&E,x10]



**Fig 4: Section showing xanthoma cells ( foamy macrophages) [H&E,x40]**

#### DISCUSSION

The pathogenesis of XGC remains speculative. It has been said that the foreign body reaction against the extravasation of bile may be the fundamental process to initiate the process and may mimic the pathology of xanthogranulomatous pyelonephritis, where obstruction with stasis is an important etiology. Infection and delayed hypersensitivity through cell mediated immunity have also been proposed for the pathogenesis.<sup>4,5</sup>

The clinical presentation of XGC is reported to be more common in male gender.<sup>1,6</sup>

However in our case study XGC presented in female and this could be because gall stones are more common in women. The age of presentation here is 46years and the average age reported in other series were older<sup>1,6</sup> and the explanation could be cholelithiasis develops at earlier age in Indian-subcontinent.

The diagnosis is usually possible only after pathological examination. Clinically, xanthogranulomatous cholecystitis often presents as severe chronic cholecystitis associated with abdominal pain, fever, and leukocytosis.

Gallstones are present in most cases.<sup>6</sup>This unusual entity is characterized morphologically by a broad spectrum of xanthogranulomatous changes seen from a small limited focus within yellow nodule in the gallbladder wall, to diffuse involvement of the entire gallbladder with extension of the fibrosis into surrounding tissues. Xanthogranulomatous cholecystitis may form a tumour-like mass in inflamed gallbladders. Grossly the lesions are usually soft, yellow to brown, and measure up to 2.5 cm. Microscopically, there are varying amounts of inflammation, xanthoma-like foam cells, and scarring.<sup>7</sup> Lipid is ingested by macrophages, which have the appearance of xanthoma cells and giant cells of foreign-body and Touton type. This is usually seen in association with dense fibrous tissue.<sup>7</sup> Laproscopic cholecystectomy is considered better than open cholecystectomy in view of excess bleeding in the latter.<sup>8</sup>

#### CONCLUSION

Though xanthogranulomatous cholecystitis presents with similar symptoms as chronic cholecystitis, histological features will give a confirm diagnosis. It is important to identify and diagnose xanthogranulomatous cholecystitis topathologically, as it sometimes mimics gall bladder carcinoma grossly with a thickened wall of gall bladder.

#### REFERENCES

1. Gilberto Guzman-Valdivia. Xanthogranulomatous Cholecystitis: 15 years Experience. *World J Surg* 2004;28:254-7.
2. Gilberto Guzman-Valdivia. Xanthogranulomatous Cholecystitis in Laparoscopic Surgery. *J Gastrointest Surg* 2005;9:494-7.
3. Dixit VK, Parakash A, Gupta A, Pandey M, A. Gautam, Kumar M, Shukla VK. Xanthogranulomatous cholecystitis. *Dig Dis Sci*. 1998 May;43(5):940-2.
4. Mori M, Watanabe M, Sakuma M, Tsutsumi Y. Infectious etiology of xanthogranulomatous cholecystitis: Immunohistochemical identification of bacterial antigens in the xanthogranulomatous lesions. *Pathol Int* 1999;49:849-52.
5. Seiko Sawada, Kenichi Harada, Kumikolsse, Yasunori Sato, Motoko sasaki, Yasuharu Kaizaki, Yasi Nakanuma. Involvement of Escherichia coli in pathogenesis of xanthogranulomatous cholecystitis with scavenger receptor class A and CXCL16-CXCR6 interaction. *Pathol Int*. 2007;57:652-63.
6. Kwon AH, Matsui Y, Uemura Y. Surgical Procedures and Histopathologic Findings for Patients with Xanthogranulomatous Cholecystitis. *J Am Coll Surg* 2004;199:204-10.
7. Kim PN, Ha HK, Kim YH, Lee MG, Kim MH, Auh YH. US Findings of Xanthogranulomatous Cholecystitis. *Clin Radiol* 1998;53:290-2.
8. Srikanth G, Kumar A, Khare R, Siddappa L, Gupta A, Sikora SS, et al Should Laparoscopic Cholecystectomy be performed in patients with thick-walled gallbladder? *J Hepatobiliary Pancreat Surg* 2004;11:40-4.

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