

## A Rare Case of Follicular Cholecystitis with Cholelithiasis

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### Abstract

Follicular cholecystitis is a rare case. It is a benign entity of gall bladder associated with cholelithiasis in seventy percent cases. We represent this case as lymphoid hyperplasia of Gall Bladder in thirty four years of female presented with abdominal pain and processed with histopathological examination.

**Keywords:** Follicular Cholecystitis; Gall Bladder

### Introduction

Follicular cholecystitis is a condition in which there is formation of numerous prominent lymphoid follicles. Mucosal layer involvement by these follicles is predominant, although follicles can be present throughout the wall. Follicular cholecystitis is a rare entity. It is strongly associated with cholelithiasis, approximately in up to 70% of the cases. Its association with chronic cholecystitis is relatively more common in females as compared to males.

### Case Report

A thirty four years old female patient presented to the department of surgery with right sided abdominal pain as her chief complaints. After span of six months she again developed similar complaints and was diagnosed as cholecystitis, there after cholecystectomy was done. The specimen was received at our institute for histopathological examination.

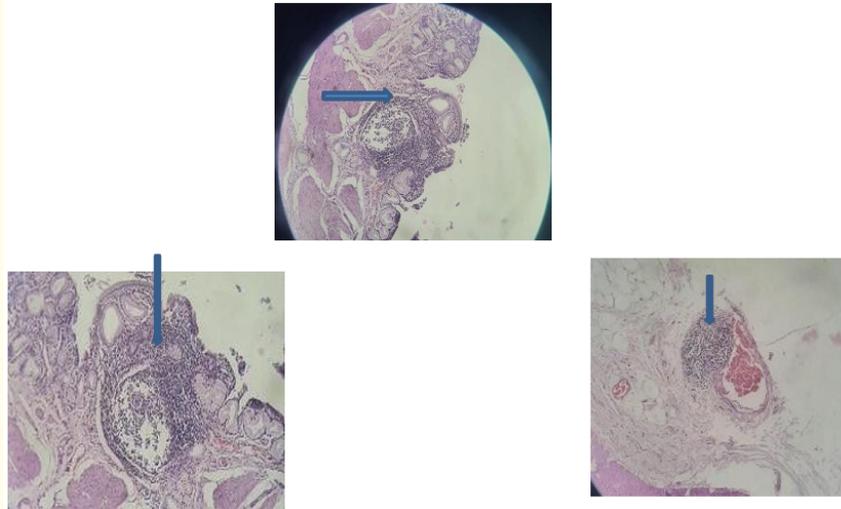
### Gross features

Cholecystectomy specimen measured 6.5 x 3.1 cm. The outer surface was smooth. On cut section mucosa was green velvety to sloughed at places. Wall thickness was 0.2 cm. Multiple yellowish gall stones were present in the lumen. Sections were submitted from the fundus, body and neck.

### Microscopy

The Hematoxylin and Eosin stained sections from the gall bladder showed scattered lymphoid follicles in lamina propria, muscularis mucosae and serosa. Presence of lymphocytes, macrophages, and plasma cells as chronic inflammatory infiltrate is noted. There was no

necrosis or giant cell formation. These lymphoid follicles were more than three in number and found in all layers of gall bladder. With all these findings, diagnosis of follicular cholecystitis of gallbladder was made. To rule out the possibility of tuberculosis and fungal etiology special stains as ZN stain and periodic acid Schiff were performed. Both stains came out to be negative thus association with any tubercular or fungal infection was ruled out.



**Figure 1:** Microphotograph 400x showing follicles in Lamina propria, mucosal and serosal layers of gall bladder.

### Discussion

In Gall bladder follicular hyperplasia is very rare entity. This condition may also be seen in lungs, orbit or skin. Very few cases Gall bladder follicular hyperplasia are published in literature [1]. The incidence of chronic follicular cholecystitis is less than 2%. Few other terminologies which describe the same lesion of gall bladder in literature are lymphoid hyperplasia and pseudolymphoma. In follicular cholecystitis lymphoid follicles are distributed throughout the wall of gall bladder [2] and this similar pattern was observed in our case. In our study, many distinct lymphoid follicles formation was seen in all layers including lamina propria, muscularis mucosa as well as the serosa. One study done by Tomori, *et al.* [3] with total number of 1341 patients out of them 11.8% of patients showed lymphoid follicles in the lamina propria of the gall bladder which were later on diagnosed as low grade maltomas. Five cases of chronic cholecystitis with focal lymphoid hyperplasia were studied by Albore S., *et al* [4].

Generally, in normal mucosa of the gall bladder lymphoid follicles are not seen or these are present sparsely. Although few intraepithelial lymphocytes may be present along with the surface columnar epithelial cells [5]. Reactive lymphoid hyperplasia may be seen as a result of either long standing inflammation or due to autoimmune process [6]. The middle aged female are affected more commonly as they suffer from many autoimmune disorders like chronic hepatitis, thyroiditis or primary biliary cirrhosis and chronic inflammatory conditions. Although our present case was also of a middle aged female but not associated with any autoimmune disorder. Reactive lymphoid hyperplasia of gallbladder may arise after chronic cholecystitis [7] and this seemed to be the cause of follicular cholecystitis in our case.

In follicular cholecystitis, distinct mantle zone with follicles are of variable size comprising of polymorph lymphoid population as seen in our case [8]. However, in follicular lymphoma, the follicles are uniform in size without a well formed mantle zone and presence of monomorphous cell population.

Malignant lymphoma is one of important differential diagnosis of reactive lymphoid hyperplasia. Therefore, this possibility should be kept in mind although lymphoma is considered to be primarily a tumor of lymph node, but its possibility to arise from other tissues having lymphoid cells may also be present [9]. Lymphomas that is mimicking most commonly as follicular cholecystitis is MALT lymphoma, follicular lymphoma, mantle cell lymphoma and small lymphocytic lymphoma. So, exclusion of all these possibilities are must before making diagnosis of follicular cholecystitis.

The primary MALT lymphoma of gall bladder differs from reactive change as it is characterized by presence of diffuse infiltration of cells that resembles the small cleared follicular cells and many plasma cells along with epithelial invasion by lymphoma cells [10].

CD5 and cyclin D1 positivity along with BCL-2 expression are present in Mantle cell lymphoma which comprises of small to medium sized centrocyte cells that are exhibiting CD5 and cyclin D1 positivity along with BCL-2 expression. On histology a monotonous population of small monoclonal lymphoid cells infiltrating the gall bladder is seen in small lymphocytic leukemia of gall bladder which is extremely rare. Hence is also a diagnostic possibility. In our case, IHC was negative for BCL-2, CD5 and CD 23 and thus we confirmed the diagnosis of follicular cholecystitis.

### Conclusion

Follicular cholecystitis of gall bladder is a rare entity as our case is representing it. It is benign entity and often compared as lymphoma on morphology. So, whenever a case of lymphoid hyperplasia of gall bladder is made possibility of malignant lymphoma must be excluded. In addition to it immunohistochemistry staining is must to confirm the diagnosis along with morphology.

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