Follicular Cholecystitis with Cholelithiasis: A Rare Case Report

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ABSTRACT- Introduction- Follicular hyperplasia of the gall bladder is an extremely rare and benign entity characterized by hyperplastic lymphoid follicle with germinal center consisting of the lymphoid population.

Methods and Materials- We were reported a rare case of follicular hyperplasia of gall bladder in a 36 yrs old female presented into the department of surgery with a right side upper abdomen pain then she was diagnosed as cholecystitis and managed by cholecystectomy and specimen was received and processed for histopathological examination.

Results- Due to chronic cholecystitis patient present with right upper abdominal pain and upon histopathological examination diagnosed incidently as follicular cholecystitis.

Conclusion- Histopathological examination reveals a rare case of follicular cholecystitis.

Key-words- Follicular cholecystitis, Gall Bladder, Pseudolymphoma

INTRODUCTION

Gall Bladder diseases are a significant cause of morbidity and mortality. Diseases affecting the gall bladder comprise a wide spectrum of diseases including nonspecific inflammatory diseases, acute & chronic cholecystitis, granulomatous cholecystitis, follicular cholecystitis, gall bladder polyp, carcinoma pseudolymphoma. Follicular Cholecystitis is a condition in which there is a formation of numerous prominent lymphoid follicles in lamina propria throughout the gall bladder, creating a pseudolymphoma pattern. Follicle can be present throughout, the wall but most commonly seen in mucosal layer. Follicular cholecystitis constitutes less than 2% of cholecystectomies [1]. This condition also occurs in lungs, orbit, skin and GIT. It has been mentioned in literature that lymphoid hyperplasia, pseudolymphoma and follicular cholecystitis are some of the terms which describes the same lesion of the gall bladder [2].

We describe a rare case of follicular cholecystitis diagnosed incidently in 36 years old female in a routine cholecystectomy specimen.

CASE REPORT

A 36 years old female patient presented to the department of surgery with chief complaints of right sided abdominal pain. She was managed conservatively. She had similar complain again after 4 months. Then she was diagnosed as cholecystitis and managed surgically by cholecystectomy. The specimen was received in the department of pathology for histopathological examination.

Gross feature- Cholecystectomy specimen was measuring 5.3x2.5cm. The outer surface is smooth and shiny with multiple fibrofatty adhesions. On cut section inner surface shows Bile stained velvety mucosa, wall thickness varies from 0.3-0.4cm i.e. Gall bladder wall was thickened and gall stone was present in the lumen.

Fig. 1: Gross appearance of cholecystectomy specimen
Microscopy- The Hematoxylin (H) and Eosin (E) stained section from the gall bladder showed features of chronic cholecystitis with Rokitansky Aschoff Sinuses formation at places. Underlying lamina propria shows proliferating or reactive lymphoid follicles along with chronic inflammatory infiltrate comprising of lymphocytes, macrophages, and plasma cells. There was no necrosis and giant cell. There were more than three reactive lymphoid follicles found in a 1cm² areas. Pathological diagnosis of follicular cholecystitis of gall bladder was made on the basis of above mentioned findings. Again Zeihl Neelson stain for tuberculosis and periodic acid Schiff for fungal etiology was also done and both were negative indicating not association with a specific agent but bile culture was positive for *Salmonella typhi.*

**DISCUSSION**

Follicular cholecystitis is a very rare entity of gall bladder; only a few cases published in the literature [1]. Chronic follicular cholecystitis (CFC) is an entity which has lymphoid follicles distributed throughout the wall of gall bladder [3]. Chronic follicular cholecystitis has an incidence of less than 2% [1]. Tomori et. al. [4] studied 1341 pt of which 11.8% of pt showed lymphoid follicles in the lamina propria of the gall bladder which later turned out to be diagnosed as low grade malomas. Albore Saavedra et. al. [5] studied 5 cases of chronic cholecystitis with focal lymphoid hyperplasia. In our study, three distinct lymphoid follicles with germinal centre formation were seen in muscular layer. Follicular hyperplasia of gall bladder is an extremely rare and benign entity. This condition also occurs in lungs, orbit, skin, and GIT. It has been mentioned in literature that lymphoid hyperplasia, pseudolymphoma, and follicular cholecystitis are some of the term which describe the same lesion of the gall bladder [2].

Lymphoid tissue in normal mucosa of the gall bladder is very sparse and lymphoid follicles are not seen. However, some intraepithelial lymphocytes are evident among the surface columnar epithelial cells [6]. Reactive lymphoid hyperplasia is considered to occur either as a result of long standing inflammation or due to an autoimmune mechanism [5]. Reactive lymphoid hyperplasia of gall bladder may arise after chronic cholecystitis as was noted in the present case [8]. Most commonly the middle aged or elderly female are affected and they suffer from various chronic inflammatory conditions like chronic hepatitis, thyroidites with primary biliary cirrhosis. However, the present case was a middle aged female [9]. Malignant lymphoma is an important differential diagnosis of reactive lymphoid hyperplasia and is always a possibility to be kept in mind although lymphoma is thought to be a primarily tumor of lymph node, a substantial proportion arises from other tissue [10]. Most common lymphoma masquerading as cholecystitis are mucosa associated lymphoid tissue(MALT) lymphoma, follicular lymphoma, mantle cell lymphoma, Chronic lymphocytic leukemia/Small lymphocytic lymphoma (CLL/SLL). The primary MALT lymphoma of gall bladder is characterized by diffuse infiltration of cells resembling the small cleared follicular cells and many plasma cells along with epithelial invasion by lymphoma cells thus differentiating it from reactive changes [11]. In follicular lymphoma, the follicles are uniform in size without a well formed mantle zone with a monomorphic cell population. However, in contrast in follicular cholecystitis, follicles are of variable size with distinct mantle zone and polymorph lymphoid population as seen in our case [13]. Immunohistochemistry detection (IHC) of BCL-2 oncoproteins was shown diffuse and intense positivity in FL, while the normal germinal centers look BCL-2 positivity with less prominence in mantle zone and interfollicular cells [13]. Mantle cell lymphoma consists of small to medium sized centrocyte cells exhibiting CD5 and cyclin D1 positivity, also BCL-2 expression. Chronic lymphocytic leukemia (CLL) with gall bladder involvement is extremely rare on histology a monotonous population of small monoclonal lymphoid cells infiltrating the gall bladder wall is seen. Hence CLL is also a diagnostic possibility. IHC was showed strong positivity for BCL-2, CD5, CD23, CD43, and PAX-5. However our case was negative for CD5 and BCL-2 markers [14].

Fig. 2: Reactive/Proliferation lymphoid follicle in lamina propria (three follicles in 1 cm² area) [H& E 100X]

Fig. 3: Gall bladder mucosa with RAS formation and lamina propria with ICL-chronic cholecystitis (H& E 400X)
CONCLUSIONS
This case is represented for the rarity of occurrence of follicular cholecystitis. It is benign and extremely rare entity often masquerading as lymphoma on morphology. Malignant lymphoma must be excluded when a case of lymphoid hyperplasia is encountered. Immunohistochemistry staining is necessary to confirm the diagnosis in conjunction with morphology.

REFERENCES