CASE REPORT

Follicular Cholecystitis with Cholelithiasis: A Rare Case Report

Mahendra Singh[1], Indrabhan Vishwakarma[2*], Jagdish Kumar[3], Anita Omhare[4], Vandana Mishra[5], Y. N. Verma[6]

[1]Professor and Head, Department of Pathology, GSVM Medical College, Kanpur, India
[2, 3]Junior Resident, Department of Pathology, GSVM Medical College, Kanpur, India
[4, 5, 6]Lecturer, Department of Pathology, GSVM Medical College, Kanpur, India

[*]**Address for Correspondence:** Dr. Indrabhan Vishwakarma, Junior Resident III, Department of Pathology, GSVM Medical College, Kanpur, India

Received: 03 July 2017/Revised: 01 August 2017/Accepted: 30 August 2017

ABSTRACT

Background- 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.

Materials- We were reported a rare case of follicular hyperplasia of gall bladder in a 36 yr old female presented in 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.

Access this article online	
Quick Response Code	Website: www.ijlssr.com
	DOI: 10.21276/ijlssr.2017.3.5.24

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 complained 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 5.3x2.5 cm. 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 0.3–0.4 cm i.e. Gall bladder wall was thickened and gall stone was present in the lumen.

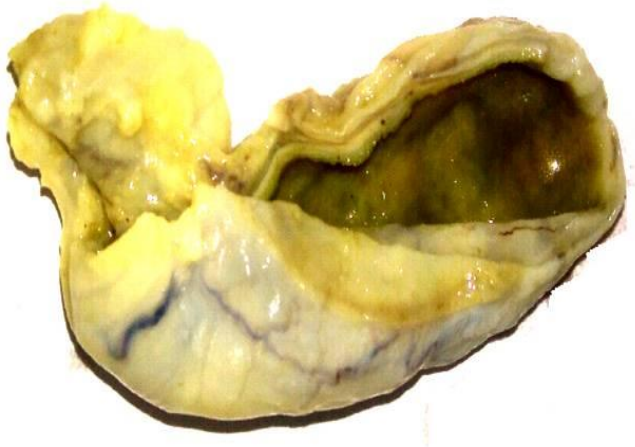

Fig. 1: Gross appearance of cholecystectomy specimen

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 the 1 cm^2 area. Pathological diagnosis of follicular cholecystitis of the 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*.

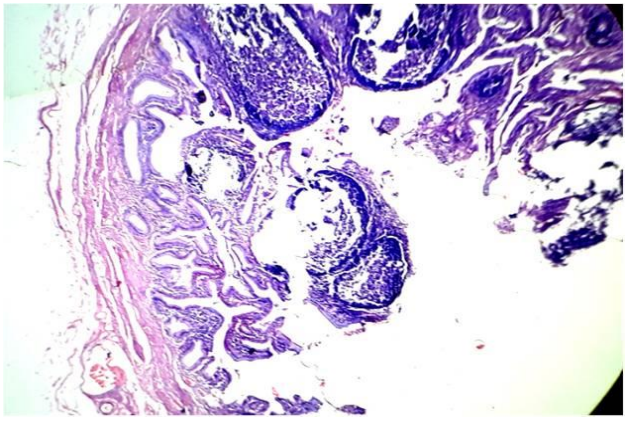

Fig. 2: Reactive/Proliferation lymphoid follicle in lamina propria (three follicles in 1 cm^2 area) [H& E 100X]

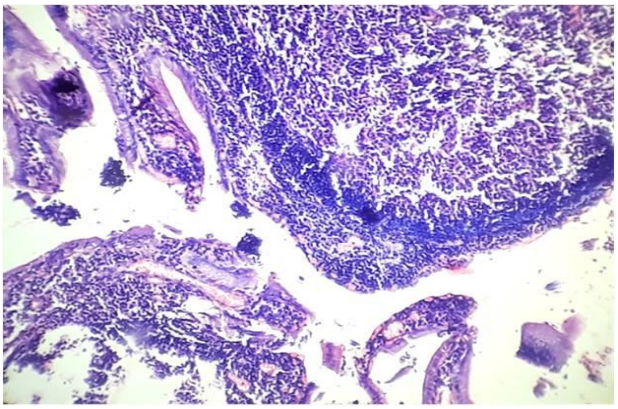

Fig. 3: Gall bladder mucosa with RAS formation and lamina propria with ICL-chronic cholecystitis (H& E 400X)

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 maltomas. 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 the literature that lymphoid hyperplasia, pseudolymphoma, and follicular cholecystitis are some of the terms, which described 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 [7]. 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 females were affected and they suffer from various chronic inflammatory conditions like chronic hepatititis, 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 primary 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 monomorphous cell population. However, in contrast in follicular cholecystitis, follicles are of variable size with the distinct mantle zone and polymorph lymphoid population as seen in our case [12].

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 was also a diagnostic possibility. IHC was shown strong positivity for BCL-2, CD5, CD23, CD43, and PAX-5. However, our case was negative for CD5 and BCL-2 markers [14].

CONCLUSIONS

This case was 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 was encountered. Immunohistochemistry staining is necessary to confirm the diagnosis in conjunction with morphology.

REFERENCES

[1] Mills SE, greenson JK, hornick JL, longacre TA, reuter VE. Surgical histopathology sternberg's. 6th edition, 2015; 1781.

[2] Husain SA, English We, Lytle LH, Thomas DW JR. Pseudolymphoma of gall bladder. Am. J. gasroenterol., 1976; 65: 152-5.

[3] Rosai J, Ackerman's surgical pathology Rosai and Ackerman's. 10th edition, 2012; 988.

[4] Tomori H, Nagahama M, Miyazato H, Shiraishi M, Muto Y, et al. Mucosa associated lymphoid tissue of gall bladder: A clicinopathological correlation Int. surg., 1999; 84(2): 144-50.

[5] Albores SJ, Gould E, Manivel RC, Angeles AA, Henson DE, Chronic cholecystitis with lymphoid hyperplasia. Rev. Invest Clin., 1989; 41(2): 159-64.

[6] Mosnier JF, Brousse N, Sevestre C, Flejou Jf, Delteil C, et al. Primary low grade B-cell lymphoma of mucosa associated lymphoid tissue arising in gall bladder histopatho., 1992; 20: 273-75.

[7] Takahashi H, Sawai H, Matsuo Y, Funahashi H, Satoh M, et. al. Reactive lymphoid hyperplasia of liver in a patient with colon cancer report of two cases. BMC Gastroenterol., 2006; 6: 25-32.

[8] Mitropoulos FA, Angelopoulou MK, Sikantaris MP, Rassidakis G, Vayipoulos GA, et al. Primary non-hodgkin's lymphoma of gall bladder, leuk Lymphoma, 2000; 40: 123-31.

[9] Yamamoto S, Tsukamoto T, Kanazawa A, Shimizu S, Mikamori M, et al. Lymphoid hyperplasia detected as a single mass in the gall bladder: Rep. Case Surg. Today, 2012; 42: 1244-47.

[10] Dasanu CA, Mesologites T, Homsi S, Ichim TE, Alexandrescu DT. Chronic lymphocytic leukemia presenting with cholecystitis like symptoms and gall bladder wall invasion. South Med. J., 2010; 103: 482-4.

[11] Ferry JA, Harris NL. In atlas of lymphoid hyperplasia and lymphoma. In day l, editor. 1st ed. Philadelphia, PA: WB. Saunders Company, 1997; pp. 130-32.

[12] Veloso JD, Rezuke WN, Cartun RW, Abernathy EC, Pastuszak WT. Immunohistochemical distinction of follicular lymphoma from follicular hyperplasia in forming fix tissues using monoclonal antibodies MT 2 and BCL-2. Appl. immuno. histochem, 1995; 3: 153-59.

[13] Wang T, Lasota J, Hanau CA, Miettinen M. BCL-2 Oncoprotein is wide spread in lymphoid tissue and lymphomas but its differential expression in benign versus malignant follicles and monocytoid B-cell proliferation is of diagnostic value. Ann. Pak. Inst. Med. Sci., 1995; 103: 655-62.

[14] Doroshaw JH, Shears H, Myers CE, Anderson T. Biliary colic hearalding systemic relapse in non-hodgkin's lymphoma. J. Surg. Oncol., 1980; 14: 255-59.

How to cite this article:

Singh M, Vishwakarma I, Kumar J, Omhare A, Mishra V, Verma YN: Follicular Cholecystitis with Cholelithiasis: A Rare Case Report. Int. J. Life Sci. Scienti. Res., 2017; 3(5):1408-1410. DOI:10.21276/ijlssr.2017.3.5.24

Source of Financial Support: Nil, **Conflict of interest:** Nil

