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RESEARCH ARTICLE

CHOLECYSTITIS WITH CHOLELITHIASIS WITH TUBERCULAR PATHOLOGY: A CASE REPORT

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Abstract

An extremely uncommon condition that manifests as calculous or acalculous cholecystitis is gallbladder tuberculosis (GBTB). It is challenging to make an accurate preoperative diagnosis of GBTB, and this literature survey emphasizes that postcholecystectomy or postmortem diagnosis is the norm in the majority of patients. Although GBTB is a very rare condition, people from endemic areas who have risk factors including a history of tuberculosis or underlying immunosuppression should be suspected of having it. Since radiography lacks pathognomic features, gallbladder tuberculosis is only diagnosed through histology of the removed specimen. Here, we detail an extremely unique case of gallbladder tuberculosis that was unexpectedly discovered during histopathological examination.

Introduction:-

Cholelithiasis with concomitant cholecystitis of the gallbladder is a prevalent diagnosis given to an individuals who arrives with complain of pain abdominal in the right upper quadrant[1]. Isolated tuberculosis (TB) of the gallbladder is highly unusual because of its intrinsic capacity to resist tuberculous infections, and the diagnosis of this disease is nearly usually brushed aside[2-3]. The most typical clinical manifestations include fever, nausea, vomiting, anaemia, anorexia, weight loss, and discomfort in the abdomen. Ultrasonography can identify gallstones, wall thickening, or a tumour inside the gallbladder[4]. Gall bladder TB was first described by Gaucher in 1870. Since then, different presentations have been documented and reported through independent case studies[5]. In this report, we have highlighted a case of an immunocompetent patient with symptomatic cholelithiasis, diagnosed as GBTB postcholecystectomy on histopathological examination.

Case Report

A 48 year old Male presented with history of on and off pain upper abdomen since 4-5 months, which was not associated with nausea, vomiting or fever. There is no history of jaundice, loss of appetite, weight loss or any chronic illness in the past. No history reported for Tuberculosis in patient or any family member.

After taking a detailed clinical history, ultrasonography of the abdomen revealed thickened and edematous gallbladder wall measuring 10mm. There is seen ill defined hetero-echoic collection with maximum depth of 2.3mm likely organised in pericholecystic region. Also there is suggestive of an echogenic foci giving dark acoustic shadow measuring 8.8mm in neck suggestive of cholelithiasis.

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After USG Abdomen clinician proceeded for Magnetic Resonance cholangiography (Upper Abdomen) which concluded as complex chronic cholecystitis with cholelithiasis and significant surrounding adhesions with streak of loculated fluid in pericholecystic regim close to fundal aspect- Rule out Concealed GB Perforation.

The patient underwent a routine laparoscopic cholecystectomy which was uneventful. GB specimen sent for histopathological examination.

Gross:-

Received a specimen of gall bladder measuring 6X3X1cm. External surface is irregular with papillary excrescenses. In fundus there is widened area noted measuring 3x3.5 cm. On cut section, a black coloured stone retrived and numerous chalky white areas extending to the peritoneal layer seen. The cavity is obliterated.

Figure:- (a) Shows numerous chalky white areas and **(b)** Shows obliterated cavity on cut section.

Microscopic Examination:-

- Section from representative areas show features of chronic cholecystitis.
- Sections from thickened multiple chalky white areas shows widening of peri-muscular subserosal connective tissue.
- There are seen numerous epitheloid cell granuloma with focal caseous necrosis and multinucleated giant cells and Langhans type giant cells.
- These granulomas are involving the peritonal (serosal layer).

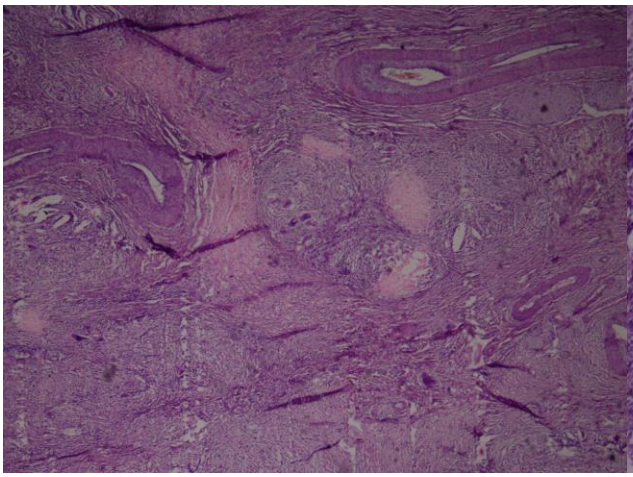

Figure. (c):-

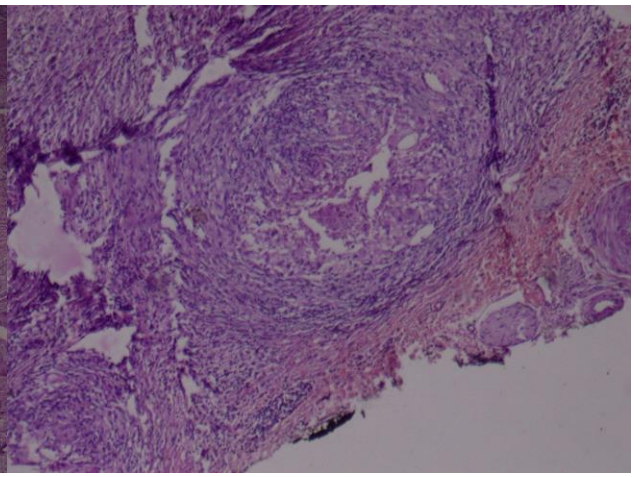

Figure. (d):-

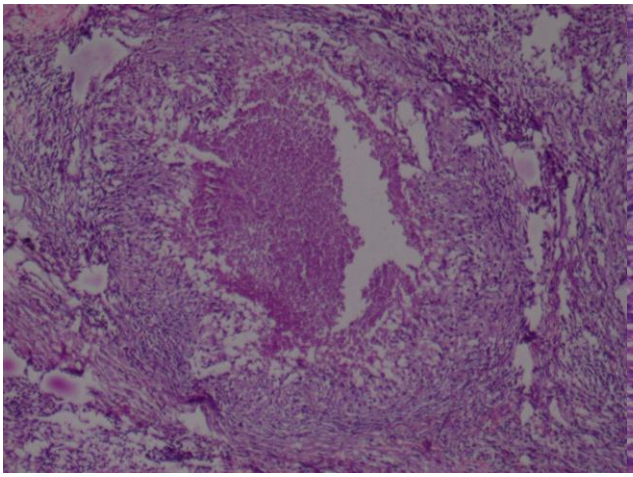

Figure. (e):-

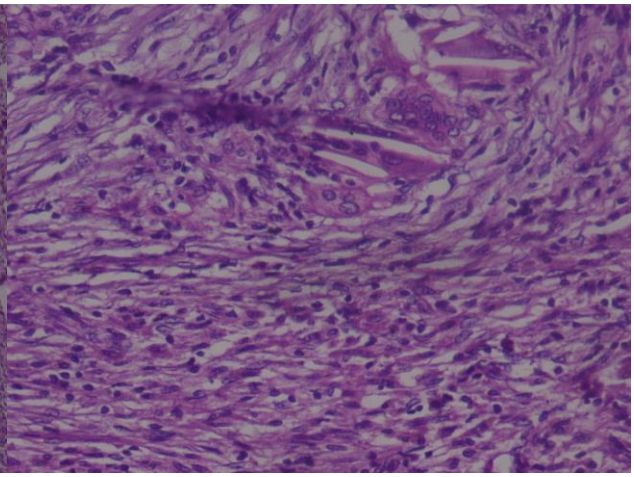

Figure. (f):-

Above figures represent sections from post-cholecystectomy specimen showing multiple epithelioid granulomas, multinucleated Langhans type giant cells with caseous necrosis in low power 4x (figure c), 10x (figure d and e) and High power 40x (figure f).

Discussion:-

In developing countries, 10% of all cases of tuberculosis involve the abdomen; in contrast, GBTB accounts for 1% of cases of abdominal TB in places where the disease is prevalent [1,4]. Overall, the gallbladder itself has a strong resistant against tubercular infection, probably because of its inhibitory action of bile[6]. According to Sir BOA Moynihan, ‘ a gallstone is a tomb stone erected to the memory of the organism within it’ . The GB is exposed to infectious pathogens through the bloodstream or lymphatic circulation from a focus nearby. Streptococci, coli form, typhoid bacilli and actinomyces are the organisms that are commonly encountered in gallstones and GB having an aetiology of infection. Mycobacterium can also be an another possible explaination of cholelithiasis and/or cholecystitis, particularly when tuberculosis is spread out to the peritoneum and lymph nodes in the surrounding area[7]. The presence of stones is believed to have significant role. The very seldom tuberculous involvement of the GB might be perhaps because of hypovascularity of the GB sac and raised alkalinity of concentrated bile inside it for the development of the tuberculous infection in the present case[7,8]. Weitz (1955) has proposed the following classification of tuberculosis of the gall-bladder :-

I. Miliary tuberculosis in children with ulcerating tubercles in the gall-bladder.

2. Severe general tuberculosis in conjunction with gallbladder tuberculosis.

3. Tuberculosis that is restricted to the gallbladder is often unintentionally found when examining extirpated gallbladders under a microscope.

4. Involvement of the gallbladder in associated with TB in other peritoneal organs.
According to the above classification this Case belong to group 3[8]. The two most significant risk factors for gallbladder tuberculosis development are thought to be cholelithiasis and obstruction of the cystic duct. The haematogenous pathway, nearby caseating lymph nodes, or peritoneal tubercles are the usual ways that the infection spreads. Gallstones is correlated in more than 70% of cases[9].

Conclusion:-

Gallbladder tuberculosis is an exceptionally unusual manifestation of abdominal TB. Preoperative diagnosis is not feasible due to a lack of accurate diagnostic tests; thus, a significant level of suspicion and more awareness are required. In our case, the most common cause of granulomatous inflammation of gall bladder is tuberculosis. When a patient has a gallbladder mass or uneven thickening of the gallbladder wall, TB should always be considered as a differential diagnosis. Therefore, all resected cholecystectomy specimens should be sent for histopathological analysis.

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