

Idiopathic eosinophilic cholecystitis with Cholelithiasis- a rare histopathological variant

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*Department of Pathology , Physiology and Surgery , Krishna Institute of Medical Sciences Deemed University , Karad , Maharashtra, India***ABSTRACT**

Eosinophilic cholecystitis is a rare form of cholecystitis presented with classical symptoms of cholecystitis and diagnosed on histopathology in presence of more than 90% eosinophilic infiltrate with in wall of gallbladder . We report case in a 55 year old male presented to surgical department having complaints of upper right abdominal pain, tenderness, associated with vomiting since 8 days. On ultrasonography abdomen-pelvis show distended gallbladder with calculus of size 1.7 cm at fundic region .The wall of gallbladder thickened and edematous .Mild heterogenous intraluminal debris was noted. Open cholecystectomy was performed . Gallbladder specimen on histopathologically diagnosed as eosinophilic cholecystitis with cholelithiasis. We are presenting this case for its rarity , its clinical and histopathological findings.

Keywords: Disorders of gallbladder, Eosinophilic cholecystitis , Gall stones .

Introduction

Eosinophilic cholecystitis is a rare disease which was first described in 1949[1]. Eosinophilic cholecystitis is observed in 1-5% of resected gallbladders [2,3]. Its pathogenesis is unknown , although many hypothesis have been made . Eosinophilic cholecystitis resembles clinically and on laboratory investigations similar to other cases of cholecystitis. Histopathological examination of more than 90% eosinophilic infiltrate in the wall of gallbladder is diagnostic . Prognosis of eosinophilic cholecystitis is favourable.

Case report

A 55 year old male patient presented to the surgical department complaining of severe right upper quadrant pain , tenderness , fever, associated with nausea and vomiting since 8 days . There was no contributory drug , infection , or family history .The patient gave past history of pain abdomen off an on for last one year .

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On clinical examination patient was well nourished and built, febrile and showed icterus. Right upper quadrant abdominal pain , tenderness was present. Murphy's sign was positive . Systemic examination reveal no significant abnormalities . Patients laboratory investigation showed Hb- 9.0 gm% , TLC – 5400/cu mm , DLC – N-70% , L-25% , E-05% . Peripheral blood smear showed features of microcytic-hypochromic anemia . Routine urine examination was normal . On biochemical investigation his serum total bilirubin – 2.5 mg% , direct bilirubin – 2.0 mg% . SGOT – 55 IU/ml. SGPT- 48 IU/ml. Total protein was 7.2 gm/dl. The stool was normal. On radiological investigation USG abdomen-pelvis revealed distended gallbladder with calculus of size 1.7 cm at fundic region ,the wall was thickened and edematous . Mild heterogenous intraluminal debris was noted .Liver showed mild fatty change. Other abdominal pelvis organs were unremarkable .The clinical diagnosis was chronic cholecystitis with cholelithiasis was given . The open cholecystectomy was done, and specimen was sent to pathology department. We received specimen of gallbladder totally measuring 9x3.5x2.5 cm. The external surface was yellowish brown with congested blood vessels and adhesions. On cutting open gallbladder mucosa was ulcerated , sloughed and lumen was filed by purulent material with bile. The wall was thickened. At fundus showed single dark yellowish brown gall stone impacted and numerous

granular gallstones in lumen. (Figure 1) .On microscopic examination showed ulceration of mucosa and all the layers of gallbladder wall showed infiltrate of eosinophils more than 90 % which was extending over serosal surface also (Figure 2,3) Histopathological diagnosis was given as Eosinophilic cholecystitis

Discussion

Eosinophilic cholecystitis is a rare form of cholecystitis characterized by predominant infiltrate of eosinophils in the wall of gallbladder[2-4]. Its etiology is often unknown , or it may be associated with other conditions like infections , drugs , medicinal herbs , autoimmune disorders , allergy , eosinophilic gastroenteritis , parasitic infestation , hypereosinophilic syndrome , etc.[5-7].When apparent precipitating causes was absent it is describe as idiopathic eosinophilic cholecystitis[6,8]. In our case there was no associated cause was detected on clinical examination , case history and investigations .Eosinophilic cholecystitis has been describe as an acalculus cholecystitis , but in rare cases it is associated with cholelithiasis[9] .In our

case a single gall stone impacted as fundus was detected which was rare association with eosinophilic cholecystitis . Singh D et al presented eosinophilic cholecystitis with cholelithiasis[10].

Clinically eosinophilic cholecystitis resembles other cholecystitis .Preoperatively suspicion of it can be kept if blood examination showed peripheral eosinophilia .It is observed that approximately 20% of resected gallbladders have eosinophils .The confirmation is done on resected specimen if >90% eosinophilic infiltrate is observed in wall of gallbladder[4].Such patients must be investigated to rule out other associated disorders.The massive eosinophilic infiltrate often involves muscular layer ,but may be transmural or limited to muscularity .Some cases show associated myoblastic or fibroblastic proliferation . The eosinophilic infiltrate may be seen in cystic duct also .The other conditions should be ruled out .The immunological and granulomatous angitis also should be ruled out where eosinophilia with vasculitis are seen.The treatment of choice is cholecystectomy and showed favourable prognosis.

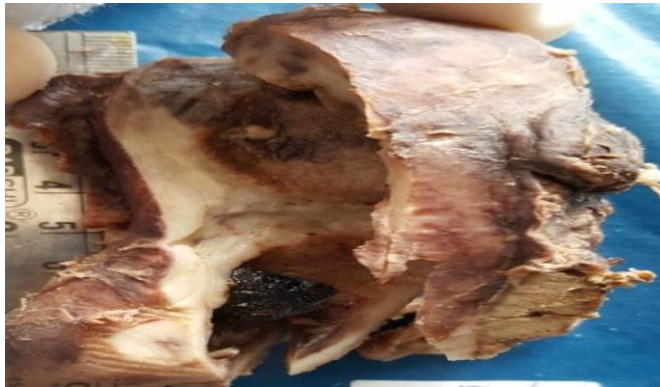


Fig 1: Gross cholecystectomy specimen cut open showing thick wall, mucosal ulceration and gallstone.

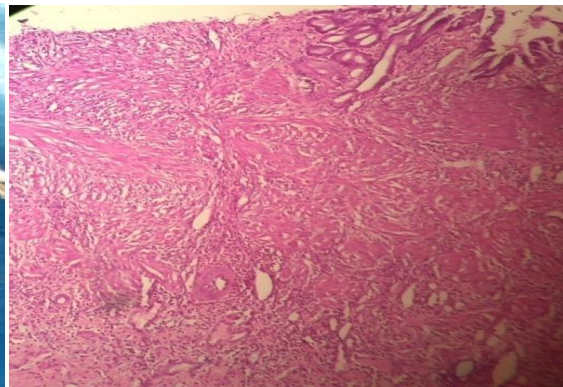


Fig 2: Photomicrograph showing wall of gallbladder with extensive eosinophilic infiltrate in all the layers . (H and E stain ,100x)

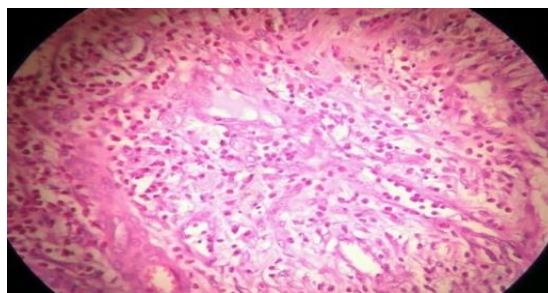


Fig 3: Photomicrograph showing wall of gallbladder with extensive eosinophilic infiltrate (H and E stain ,400x)

References

1. Albot G, Poilleux H, Oliver C. Les cholecystites a eosinophils .Presse Med 1949 ; 57:558-9.
2. Hellstrom H R . Am J Surg. Pathol 1994,18,215-216
3. Tonjima K , Katagiri T. Deposits of eosinophil granule proteins in eosinophilic cholecystitis and eosinophilic colitis associated with hypereosinophilic syndrome. Dig Dis Sci. 1996 ;41(2):282-8
4. Dabbs DJ. Eosinophilic and lymphoeosinophilic cholecystitis .Am J Surg Pathol. 1993;17:497-501.
5. Hepburn A. Coady , J Livingstone N. Pandit , Eosinophilic cholecystitis as a possible late manifestation of eosinophilia-myalgia syndrome . Clin. Rheumatol. 2000;19,470-472
6. Sanchez-Probrep P , Lopez-Rios Moreno , Colina F, Yela C, Castellano G,Solis-Herruzo JA .Eosinophilic cholecystitis :an infrequent cause of cholecystectomy.GastroenterolHepatol.1997;20:21-22.
7. Adusumilli P S, Lee B , Prekh K , Farrelly P A . Acalculous eosinophilic cholecystitis from herbal medicine : a review of adverse effects of herbal medicine in surgical patients . Surgery 2002 ;19 ,470-472.
8. Shakov R , Simoni G, Villan A, Baddoura W . Case report : eosinophiic cholecystitis . with a review of literature .Annu. Clin Lab. Sci. 2007; 37(2): 182-185
9. Pary S W , Pelias ME , Browder W. Acalculous hypersensitivity cholecystitis :hypothesis of new clinicopathologic entity .Surgery . 1998; 104:911-916.
10. Singh DK , Shankar R, Gondal R ,Malhotra V, Mishra P. Idiopathic eosinophilic cholecystitis with cholelithiasis : a case report and review of literature . The Internet Journal Surgery ,2008;16.

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