

Case study

A Giant Epidermoid cyst of the Spleen and Mini Review of Literature

Abstract

Splenic cysts are rare. They may be congenital, neoplastic, vascular, inflammatory and post traumatic in origin and may contribute to 30-40% of the total splenic lesion. Epidermoid cyst are primary congenital cysts that contains on epithelial lining. Splenic epidermoid cyst are congenital cysts contribute approximately 10% of total splenic cysts. They are encountered more commonly in children and young adults. Congenital splenic cysts are usually asymptomatic and they are discovered incidentally on radiography investigation. Splenic epidermoid cysts are true cysts, as they possess inner epithelial lining of stratified squamous epithelium. Splenic epidermoid cyst also known as splenic epithelial cysts or primary splenic cysts are usually unilocular.

We are reporting a rare case 18 years old male with history of dull aching pain and palpable mass in left hypochondrium on physical examination. CT abdomen showed a large well defined cystic mass in the spleen. On laparotomy, open total splenectomy was performed.

Keywords

Epidermoid splenic cyst, Epithelial cyst, Total splenectomy, True splenic cyst

Introduction

Splenic cysts are rare, and they are commonly found incidentally. Splenic lesions are classified in to type I- primary or true cysts with an epithelial lining of squamous epithelial, parasitic or non-parasitic origin. Type II- Secondary or false cysts without an epithelial lining. Pseudocysts are usually post traumatic, splenic infarction, organised splenic hematoma or splenic abscess or infections. (1,2)

Primary splenic epidermoid cysts are a rare condition with incidence rate of 0.07% as reported and are congenital in origin are true cysts. The primary cyst also called epithelial cyst or epidermoid cyst and constitutes 10% of benign non parasitic cysts. Most of these cases are either symptomatic or present with upper abdominal discomfort or fullness. (2,3,5)

Mini Review of the literature

As per the existing literature, the first cases of epidermoid splenic cyst were reported in 1929 by Andral. Epidermoid cysts of the splenic are rare, with only 56 cases having been reported as of 1973 by "Blank and Campbell" in the literature. Robbins and associated have reported four cases, including a total of 63 cases are reported in the literature as of now. (4,5,6)

Case Report

A 18 years old male patient was admitted to our centre on 02/04/2012, with complaints of progressively enlarged mass and pain in left hypochondrium since last few months. There was no history of abdominal trauma or any haematological disorder. Physical examination showed a mass in left hypochondrium, a smooth, firm, non-tender mass was palpable. The liver was not enlarged. The laboratory investigation were within normal limits.

CT scan revealed a hypodence cystic mass in the medial aspect of the spleen measuring 15x12x10 cm in size. Explorative laparotomy was scheduled after pneumococcal vaccine given two weeks prior to surgery. On explorative, a very large cyst of the spleen occupying the hilum of spleen, we performed total splenectomy and send for histopathological examination.

On gross examination of the specimen, there was a large splenic cyst size 15x12x10 cm, and weighing 1000 grams. The cyst was unilocular and containing 750 ml of yellowish colour fluid, inner surface of the cyst was yellowish brown, smooth and glistening surface. Histopathological a primary

splenic cyst, suggestive of epidermoid cyst of spleen having squamous epithelium with a fibro-collagenous cyst wall. The postoperative clinical course of the patient was uneventful and patient discharged on 8th post-operative day. On follow up after one-year patient was healthy. (Fig. 1-6)

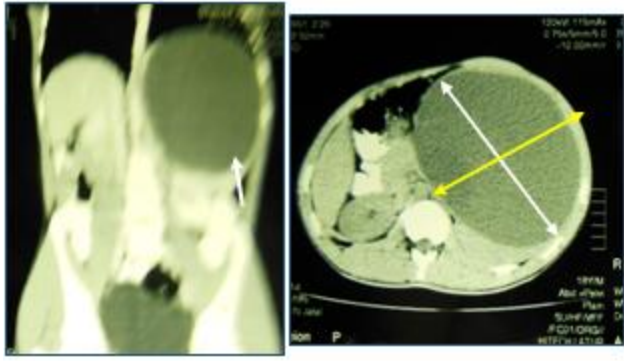


Fig-1 CT Abdomen showing 15x12x10 cm hypodense cystic lesion in the spleen



Fig-2 Intra operative photographs showing a large splenic cyst in the hilum

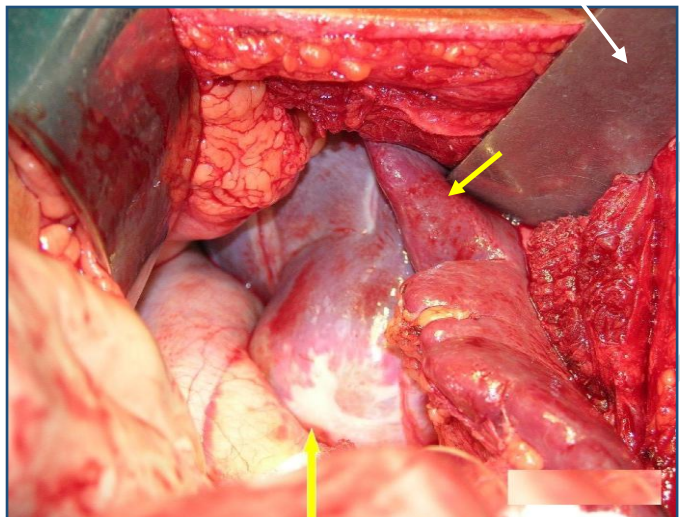


Fig-3 Intra operative photographs showing a large splenic cyst in the hilum

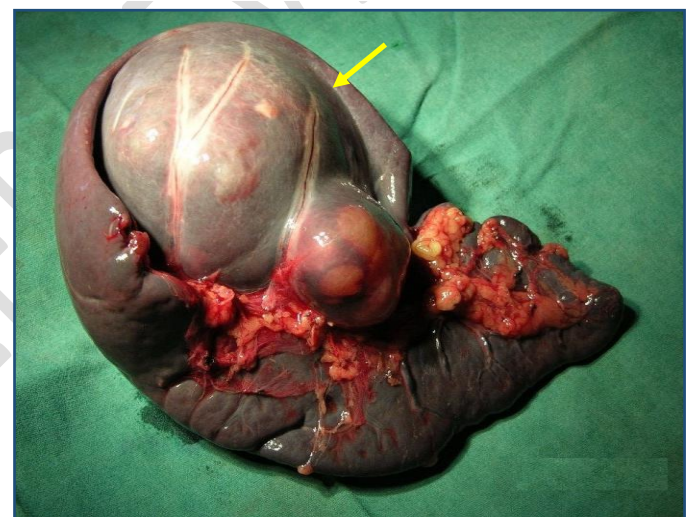


Fig-4 On gross specimen of spleen with A large splenic cyst

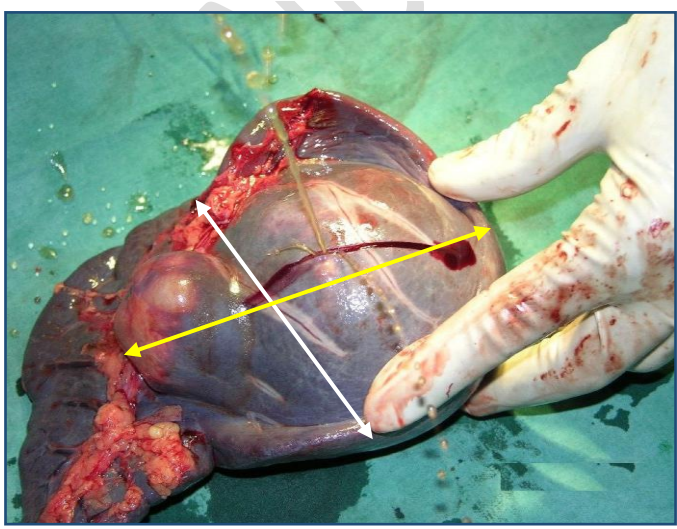


Fig-5 A large epidermoid cyst of the spleen of size 15x12x10 cm

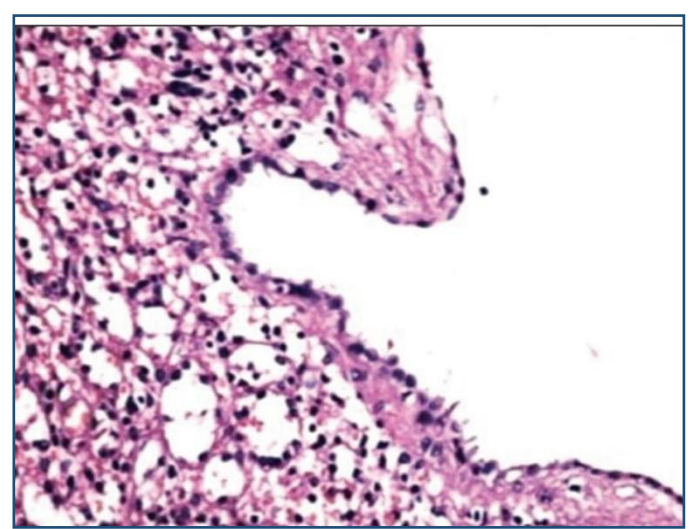


Fig-6 Primary splenic cyst lined cuboidal to flattened epithelial lining

Discussion

Primary splenic epidermoid cyst is a rare condition with an incidence rate of 0.07% as reported. Primary splenic cysts are seen mostly in children, adolescent and young adults. Splenic cysts have been classified on the bases of the presence or absence of an epithelial lining, etiology and pathogenesis. Martin classified splenic cyst as type I – cysts, which are true cyst. Type II- cyst, which are without epithelial lining are false or pseudo-cysts. Pseudocyst are usually post-traumatic, organised hematoma beneath the splenic capsule, splenic abscess or splenic infarction. A new classification bases on the true pathogenesis of cysts-non-parasitic splenic cysts as congenital, neoplastic, traumatic and degenerative. Parasitic cysts are caused by echinococcosis granulosus. The pathogenesis of primary splenic cysts is not clear but many hypotheses were proposed, mesothelial invasion theory, lymph space theory and endodermal theory are accepted for the development of primary splenic cysts. (1,3,4,5)

Ultrasonography is good non-invasive tool for confirming the cystic mass. On ultrasonography cyst appears as an anechoic mass with thin or thick wall along with calcification. CT scan revealed a hypodence cystic mass in the spleen, calcification and internal debris can be visualized.

Indication for total splenectomy includes, multiple cysts, large splenic cyst more than 5 cm, the location of cyst in the hilum of the spleen. Laparoscopic total splenectomy can be performed if splenic cysts are small in size. (4,5)

Conclusion

Epidermoid cysts of the spleen are extremely rare entity. Total splenectomy opens or laparoscopic is the gold standard procedure of choice in the splenic tumours or cysts.

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