ABSTRACT

Splenic cysts are rare lesions. Primary cysts have a cellular lining that can be caused by congenital events or parasitic infection (echinococcus). Secondary cysts (pseudocyst) have no cellular lining and maybe haemorrhagic, serous, inflammatory, or degenerative origin. We report a case of pseudocyst of spleen treated successfully by laparoscopic excision of cyst.

KEYWORDS splenic pseudocyst, laparoscopic marsupialisation, omentopexy

Introduction

Splenic cysts are rare cases reported in the world literature. Splenic cysts are classified as: True (primary) cysts with epithelium lined walls and pseudocysts (secondary) lacking the epithelial lining[1]. It is essential to distinguish pseudocyst of spleen from other benign/malignant splenic cysts, especially from hydatid cysts to follow the right treatment and management option. Splenic pseudocysts mostly remain asymptomatic and are diagnosed incidentally. Usually, only large cysts produce symptoms[2,3] and are surgically treated by splenectomy or splenic preservation surgery.

Case Report

A 22-year-old girl was admitted with a complaint of a progressively painless lump of 3 months duration in the left hypochondrium. The patient complained of symptoms like fullness of abdomen, lack of appetite and nausea after having meal. History was negative for malaria or any other haematological disorder. There was no history of sudden loss of weight or trauma to the abdomen. Physical examination showed good general condition. Per abdomen there was a palpable mass measuring 10×8 cm extending from the left costal margin towards the umbilicus with smooth surface and cystic consistency. The liver was not enlarged.

All the routine laboratory investigations were within normal limits. Clinically a splenic cyst was suspected. Ultrasonography revealed a size of 10×15 cm cystic lesion in the spleen. Computed tomography showed a large aseptated cystic lesion of 12.3×10×15.5 cm in spleen with a mean attenuation of 10HU indicating a simple splenic cyst. The mass was otherwise well-circumscribed and homogenous. Pancreas and bilateral kidneys are normal. There was minimal free fluid in the pelvis.

On laparoscopy huge cyst was inside spleen, filled with about 1.5 litres of straw-coloured fluid with thick wall comprising compressed splenic tissue. Per op frozen section examination of cyst wall revealed no evidence of malignancy. Laparoscopic marsupialisation of cyst along with omentopexy was done taking care to avoid splenic cystic rupture during surgery and thus to prevent recurrence of primary and secondary cysts. Postoperative period was uneventful, and patient was discharged in a satisfactory condition.

The patient is on regular follow up and is doing well. The histopathological report showed pseudocyst with no regular cellular lining in the cyst wall.

Discussion

Splenic cysts are rarely diagnosed lesions. There are no uniform guidelines regarding classification, diagnostic modalities and treatment of splenic cysts. Martin[1] classified them as true (primary) cysts with epithelium lined walls and pseudocyst (secondary) as those lacking an epithelial lining. The true incidence is unknown, but almost 75% of all splenic cyst are post traumatic[4], and blunt trauma abdomen is considered the most frequent cause of later formation of secondary cyst (pseudocyst).
Pachter et al. described seven patients with splenic pseudocyst, which suffered from abdominal cavity injuries during 5 years before hospitalisation[5]. Gianom et al. described seven patients with splenic cysts of which three suffered from abdominal cavity injuries[6]. Wu et Kortbeek described six patients who were diagnosed with splenic pseudocyst[7]. All the patients mentioned above suffered from injuries. There are many single case reports of splenic pseudocysts in patients denying abdominal cavity trauma[8,9] in world literature, but this does not mean that these patients did not sustain any injury, but these patients might have sustained injuries which were not always serious, and they might tend to forget these as trivial events[6]. Most of cysts (30-60%) are asymptomatic and diagnosed incidentally and do not produce symptoms, until oversized. Most splenic cysts are unilocular and vary in size from 1 to 16cm. A large cyst may cause atypical pain and heaviness in left hypochondrium due to distension of splenic capsule or space-occupying mechanisms in abdominal cavity, or they may present as a palpable mass[3]. Symptoms secondary to pressure on surrounding organs, such as nausea, vomiting, flatulence and diarrhoea gradually appear. Sometimes pressure on the left lung and diaphragm may cause pleuritic pain, dyspnœa or persistent cough. Complications do sometimes occur as in other cystic lesions in the form of infection, rupture and haemorrhage[4].

Diagnosis of pseudocyst is usually based on radiological examination. Ultrasonography tells us if the cyst is either anechoic or hypoechoic.[12] CT and MRI demonstrate the morphology of cyst, the composition of cyst fluid, the location in the spleen and the relationship of the cyst with the surrounding tissues.[2,12] Califications of both the primary and secondary cysts are frequently found, which are useful in diagnosing cysts from other causes of splenomegaly. Histological examination depicting a no true epithelial lining, the thickness of fibrotic wall and the detections of califications within the wall help in reaching a definite diagnosis of the splenic pseudocyst[3].

Very rarely, splenic cysts might be life-threatening following either rupture or hemorrhage[10]. This is evidence that surgery in case of incidentally diagnosed lesion might prevent the occurrence of life-threatening complication in distant future. Pachter et al.[5] proposed surgical management in case the lesion exceed 5 cm in diameter, due to high risk of cyst rupture. Recurrent unbearable pain or any suspicion of malignant change is another indication of surgery[11].

The previous splenectomy was the treatment of choice, but nowadays organ sparing procedures like percutaneous drainage, alcohol injections, open and laparoscopic excision, marsupialisation and partial splenectomy is preferred. If in a particular case a cyst occupies nearly the entire spleen, splenectomy is the method of choice[8,10,11,13].

**Conclusion**

The accepted non-operative management of splenic injuries nowadays along with the routine use of computed tomography and abdominal ultrasound, especially in patients with non-specific abdominal cavity symptoms have led to an increased number of diagnosed splenic pseudocysts in recent years. Symptomatic oversized pseudocyst of the spleen should primarily be managed surgically.
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Non-conflict of interest

Ethical statement
This is a retrospective case report without the use of any samples from patients, so ethical approval can be waived.

References