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A rare case or a huge asymptomatic splenic cyst

AIM: *Splenic cysts are rare benign lesions of the spleen, usually asymptomatic and incidentally discovered at imaging.*
MATERIAL AND METHODS: *A case of huge epidermoid cyst of the spleen on a 16 years old female patient is presented. This case was symptomatic with fullness and palpable mass in the entire abdomen.*
RESULTS: *Initial evaluation with ultrasound and computed tomography established the diagnosis with the greater dimension of the cyst about 25cm. Because of the size and the relation with the hilum of the spleen, splenectomy was performed and any effort to rescue splenic parenchyma was impossible.*
DISCUSSION-CONCLUSIONS: *Many techniques are reported as treatment options, but the standard of care for nonparasitic splenic cysts is splenectomy.*

KEY WORD: Benign, Cyst, Epidermoid, Splenic

Introduction

Modern imaging facilities, development of technology and evolution of screening methods contributed in a more frequent detection and more specific demonstration of splenic cystic lesions. Splenic cysts are actually very rare benign tumor-like cysts. Epidermoid cyst is a primary cyst of the spleen, filled with fluid or semi-fluid material, which can be found in younger individuals (at the 2nd or 3rd decade of life) and more often in females than in males in a ratio of almost 2:1 [1,2]. Cysts with the greater dimension over 5 cm, symptomatic or complicated cysts should be surgically removed. They may cause spontaneous hemorrhage, rupture or infection. The pathogenesis of these lesions is not clear but genetic factors as well as abdominal trauma has been proposed [3].

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Case Report

16-years-old was referred in our hospital with an asymptomatic palpable mass in all over her abdomen that was revealed after losing 10 kilograms with diet and exercise. She had no medical history, no surgeries in her abdomen and never had abdominal trauma. Also she never consumed alcohol. During physical examination a huge mass was noted in all over the abdomen with a margin right over the pubic symphysis (Fig. 1). The laboratory findings showed mild anaemia and elevated serum tumor markers, CA 125: 154.90 and CA 19-9: 167.76. Ultrasonography revealed a huge cystic lesion that compressed and translocated caudally the spleen, in pelvis. No masses were found in liver, pancreas or kidneys, as long as in the intestinal tract. Computed tomography confirmed sonographic findings.
Because of the huge size of the cyst and the young age of the patient exploratory laparotomy was performed in order to remove the cyst. Under general anesthesia a dark brown stained cystic lesion was identified, with greater dimension of the cyst about 25cm in the craniocaudal axis (Fig. 2). Compression of the surrounded structures made it difficult to proceed (and remove intact the cyst), so puncture on the cyst was performed and removal of

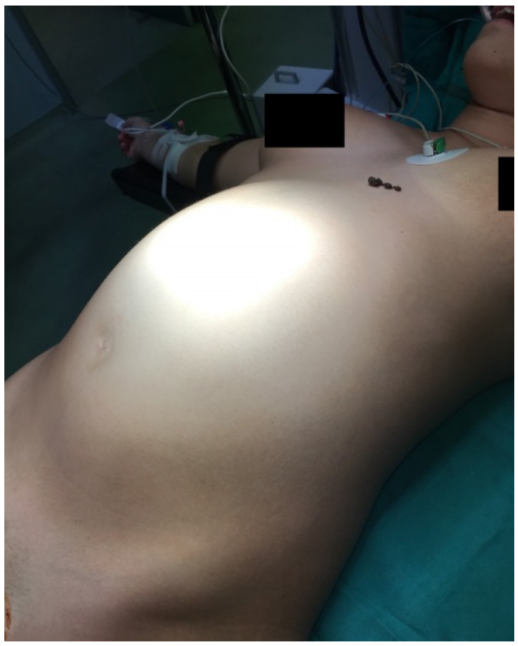

Fig. 1: Preoperative view.

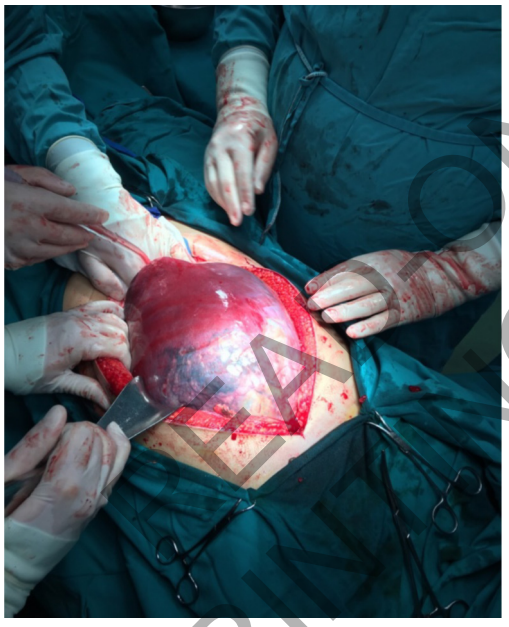

Fig. 2: Splenic cyst and caudal translocation of the spleen.

2800 ml of serous brown liquid (Fig. 3). Even though an effort was to rescue the spleen, the relationship of the cyst with the hilum of the spleen and its deformation made that impossible. Splenectomy with removal of the shrunken cyst was performed (Fig. 4). Histologically there was no evidence of malignancy and an epithelial layer was identified in the inner surface of the cyst classifying the cyst as primary epidermoid cyst. Cytological analysis of the liquid was class II and fluid analysis revealed elevated tumor markers, CA 125: 26217U/ml, CA 19-9: >120000U/ml and 15-3: 54.80U/ml.

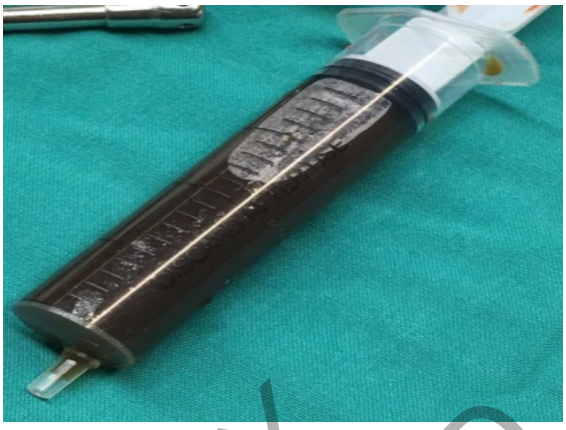

Fig. 3: Cyst fluid.

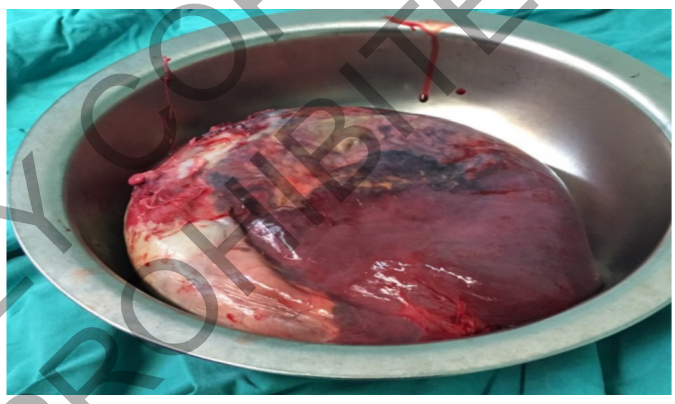

Fig. 4: Shrunken specimen.

Discussion

An inner layer of epithelial cells separates them histologically as true or primary cysts, accounting approximately 25% and in pseudocysts or secondary cysts accounting 75% of splenic cysts. Splenic cysts are classified as congenital, neoplastic, traumatic and degenerative. Congenital in origin cysts have epidermoid epithelial, mesothelial or transitional linings. The gross appearance is characteristic including a small bar, rod, bundle of fibers, or septal membrane [2]. The majority of non-parasitic splenic cysts are not of traumatic etiology as many authors use to report and the presence of trauma in the patients history seems to be incidental. The fluid among the cysts differs between colorless serous to green yellow or brown shades. The viscosity is also variable. High plasma values of CA19-9, CA125 and CEA are indicative of true splenic cysts [4].

Splenic cysts are met infrequently in every day surgical practice but the number of diagnosed splenic cysts has increased as a consequence of the radiological means evaluation. It is a benign condition but increases the possibility or splenic rapture, infection, hemorrhage or even formation of fistula with the surrounding tissues [5-7].

The standard of care for nonparasitic splenic cysts is splenectomy. The first reported effort of simple cyst excision by Jules Pean in 1867 was unsuccessful due to overwhelming bleeding. Many other techniques are reported as treatment options, like aspiration or decapsulation, as long as several approaches either laparoscopic or open surgery. Indication for surgery is an asymptomatic cyst larger than 5cm, or symptomatic cyst or smaller ones with irregular wall or presence of solid components [8]. Recurrence of nonparasitic splenic cysts is not excluded with neither open nor laparoscopic approaches of incomplete removal of the cyst. Even though the incidence of splenic cyst is rare accounting about 800 cases in the English literature, this clinical entity is challenging for both diagnostic evaluation and therapeutic purposes.

Conclusions

Splenic cysts lesions are not as rare as they used to be, because new imaging methods and evaluation of the existing utilities make the diagnosis more frequent. The management and surgical excision is individualized in every patient with efforts in saving as much splenic parenchyma as possible and minimize the risk of complications related to the cyst or therapy. The approach is based on the surgeon's preference.

Riassunto

Le cisti spleniche sono lesioni benigne rare della milza, generalmente asintomatiche e di scoperta casuale con l'imaging. Viene qui presentato il caso di una vistosa cisti epidermoidale della milza scoperta in una ragazza di 16 anni per il senso di ripienezza addominale con massa palpabile. Le indagini iniziali con ecografia e TC hanno consentito la diagnosi e la precisazione delle dimensioni della cisti, con diametro maggiore di 25 cm. In considerazione delle sue dimensioni e la situazione dell'ilo è stata eseguita una splenectomia senza la possibilità di preservare del parenchima splenico.
Vengono discusse le varie opzioni tecniche del trattamento, ma lo standard di cura per le cisti non parassitarie resta la splenectomia.

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