WHY TOTAL SPLENECTOMY IS BETTER CHOICE THAN CONSERVATIVE SURGERY IN SPLENIC CYST?

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ABSTRACT
A congenital splenic cyst is also called epidermoid or epithelial cyst. Most of the cysts are asymptomatic and incidently diagnosed during an ultrasound of the abdomen. Symptomatic patients present with pain in epigastrium and fullness in the upper left abdomen, and a palpable mass. Authors put up their views in favor of total splenectomy in the large splenic cyst.

KEYWORDS spleen, congenital cysts, splenectomy

Introduction
Splenic cysts are unusual in routine surgical practice. These can be parasitic caused by Echinococcus granulosus or non-parasitic [1;2]. The non-parasitic cyst can be either primary, e.g., true epithelial, i.e., lined by the epithelial cover, epidermoid, dermoid and mesothelial or endothelial-like Hemangioma, lymphangioma and secondary, e.g., pseudocyst, non-epithelial [3;4].

Epithelial cysts are uncommon and comprise 10% of all splenic cyst and 25% of the nonparasitic cyst. Splenic epithelial cysts occur predominantly in the 2nd and 3rd decade of life but can occur in children also.

Primary cysts are thought to be congenital and attributed to misplaced epithelial tissue during embryogenesis with consequent metaplasia. William et al.[5] suggested that these cysts are the result of invagination of splenic capsule mesothelium during development and fluid accumulation for unknown reasons.

Case report
A 35 years old Hindu female presented with pain in the upper left abdomen for one month. The pain was dull aching and non-radiating. There were no other associations.

She did not give any history of fever, vomiting, and any other significant illness in past. On examination, she was normoten-sive with normal vitals.

On abdominal examination, she had mild tenderness in left hypochondrium, and splenomegaly 5 cm below left a subcostal margin. Ultrasound revealed well-defined large, round cystic mass of 13.1x11.7x12.0 cm in size in the spleen. CECT abdomen showed splenomegaly with cystic lesion invading spleen, and a radiological diagnosis of hydatid cyst was made (Fig. 1;2).

The patient was planned for open splenectomy. Total splenectomy was done and the specimen showed large cystic lesion of 17x15x13 cm size with the involvement of hilum towards the lower pole of the spleen (Fig. 3;4). Histopathology confirmed it to be an epithelial (primary) splenic cyst. The postoperative course was uneventful. She was given the pneumococcal vaccine, and she is on regular follow-up without any complaints.

Discussion
Splenic cysts are classified as primary (true) or secondary (pseudo) cysts. Splenic cysts other than hydatid disease are very uncommon. Most true splenic cysts are epithelial in origin. Due to increased risk of complications and failure to achieve long-term control by conservative means in splenic cysts with a diameter larger than 4-5 cm, they should be managed surgically [6;11]. There are different types of surgical treatment depending on patient’s age, size, location and nature of the cyst.

The classical approach to splenic cysts has been total splenec-tomy [6;7;12]. However, there was a trend towards more conservative surgery after 1970’s because of realization of life-threatening septicemia especially in children who underwent
Fig 1: CECT showing large cyst in spleen.

Fig 3: Resected specimen of spleen cyst.
spleen plays a significant role in hematopoiesis, immune functions and protection against infections and malignancies. Today the optimal treatment options are partial splenectomy, total cystectomy, marsupialization or cyst decapsulation (unroofing) either by open laparotomy or laparoscopic, depending upon expertise available [6;10;14;15;16]. Partial splenectomy preserves more than 25% of the splenic parenchyma that is minimal splenic tissue for immunological protection [6;15].

This procedure is recommended if the cyst is located at the poles of the spleen. A more conservative approach can be unroofing of the cyst. Marsupialization of cyst is another conservative option for superficial cysts. It carries no risk of recurrence [6;7]. However any type of conservative procedure's hard to perform if the cyst is very large or encroaching splenic hilum or is covered completely by the splenic parenchyma (intrasplicen cyst) or if there are multiple cysts (polycystic cases). In these cases, a complete splenectomy should be performed either using open or laparoscopic approach [1,16,17,18].

In the species, the cyst was gigantic and encroaching hilum from the inferior pole. Hence, total splenectomy was performed. Authors reiterate the view that total splenectomy should always be considered if patient is an adult, the size of the cyst is more than 5 cm, surgical set up is not “high end” and the expertise is limited19. Looking at Indian scenario in terms of surgical setup, facilities and expertise available at majorities centers, total splenectomy is a viable and practical option. The rural population is unlikely to seek prompt remedy if there is recurrence after conservative surgical approach described above particularly because surgery has already been done once. This attitude of the rural population in India is ascribed largely to illiteracy and lack of health awareness.

To conclude it is authors’ suggestion that total splenectomy can be considered if it is large cyst involving hilum and surgical center is underprivileged and under-resourced. There is no doubt that laparoscopic marsupialization is a desirable procedure in such situation, yet once in a while in our narrated setting, open splenectomy is still a safe option. It has been observed by authors’ for last several years that rural Indian population is more interested in earning their bread rather than showing ‘concern’ for health. It is precise because of this reason that many diseases are seen in the late / advanced stage, and it is author’s endeavor to highlight the point that rural Indian population is unlikely to bother for small recurrences. It is pertinent to mention that majority of rural India population is unable to access even routine specialist facilities what to talk about advanced /super specialized facility

**Authors’ Statements**

**Competing Interests**

The authors declare no conflict of interest.

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