

## CASE REPORT

## A Rare Case of Splenic Pseudocyst

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## ABSTRACT

We present here a case of pseudocyst of spleen, a rare entity. In our case, the patient presented with pain abdomen since 5 to 6 months. She gave the history of abdominal trauma 2 years ago. Ultrasonography (USG) and computed tomography (CT) of abdomen and pelvis showed a well-defined cyst arising in spleen. Open splenectomy was followed. Histopathology of the splenectomy specimen showed features of pseudocyst.

**Keywords:** Pseudocyst, Splenectomy, Splenic.

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## INTRODUCTION

Pseudocysts of spleen are rare in day-to-day surgical practice. They usually develop secondary to trauma.<sup>1</sup> False cysts of spleen or the pseudocysts comprise 75% of the nonparasitic cysts.<sup>2</sup>

Cysts of the spleen are classified as parasitic and nonparasitic or etiologically as congenital, inflammatory, vascular, posttraumatic, and neoplastic cysts.<sup>3</sup>

Nonparasitic cysts are further classified as true cysts and pseudocysts in reference to presence or absence of surface epithelium. True cysts have an epithelial lining, which is lacking in pseudocyst. True cysts include epidermoid cyst, epithelial, or congenital cysts.<sup>3,4</sup>

Hydatid cysts due to *Echinococcus granulosus* are the leading cause of parasitic cysts. Berlot first described splenic hydatosis through autopsy.<sup>5,6</sup>

## CASE REPORT

A 34-year-old female displayed intermittent pain in the left upper outer quadrant of abdomen, which started 5 to 6 months ago. There was past history of blunt trauma to

abdomen due to fall about 2 years ago. On examination, there was splenomegaly.

The USG and CT of abdomen and pelvis revealed a cyst in the spleen measuring 9 × 8 cm with peripheral wall calcification, probably hydatid cyst. Patient underwent splenectomy. Specimen was received in 10% formalin in the histopathological section of our laboratory. Patient was given pneumococcal and meningococcal vaccines.

Grossly spleen was of 200 gm in weight, measured 14 × 11 × 5 cm (Fig. 1). External surface showed a large grayish-white cyst measuring 9 × 8 cm. Cut surface thick cyst wall noted and exuded brownish fluid (Fig. 2).

Microscopically, multiple sections studied show structure of spleen with red pulp and white pulp. Congestion of sinusoids was noted in the red pulp. A calcified cyst with thickened wall lacking lining epithelium was seen. Features of hydatid cyst were absent. The cystic fluid



**Figs 1A and B:** Specimen of spleen along with a gray-white cyst

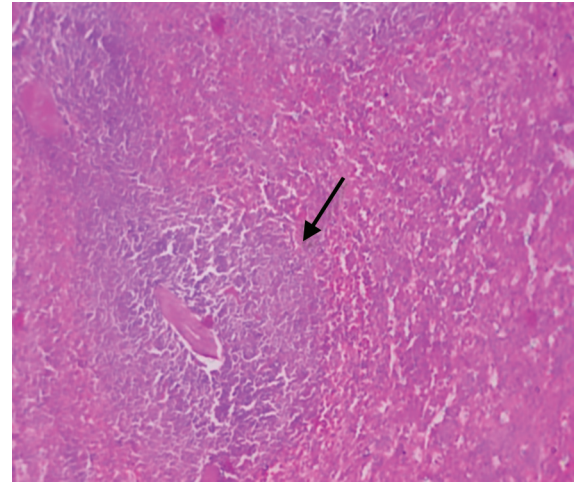
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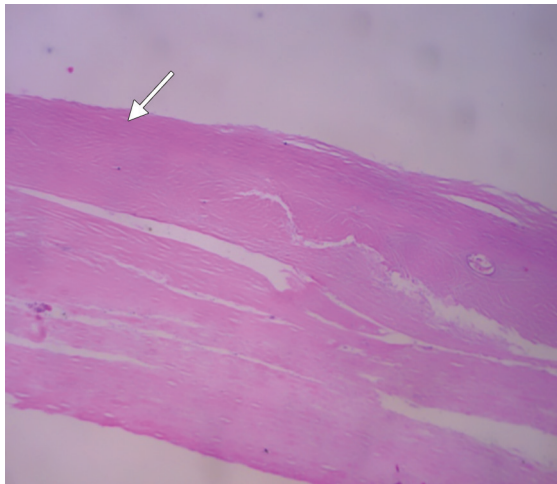
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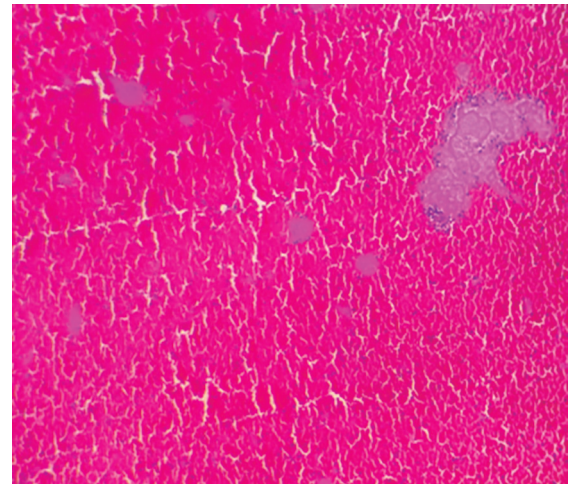
**Fig. 2:** Cut surface of the cyst showing thickened wall



**Fig. 3:** Photomicrograph shows structure of spleen with red pulp and white pulp (10×, hematoxylin and eosin)



**Fig. 4:** Photomicrograph shows structure of spleen along with thick fibrous cyst wall (4×, hematoxylin and eosin)



**Fig. 5:** Photomicrograph shows blood clot with few inflammatory cells (10×, hematoxylin and eosin)



**Fig. 6:** Photomicrograph shows calcified cyst wall lacking lining epithelium (4×, hematoxylin and eosin)

revealed only evidence of hemorrhage without atypical cells or parasites. Hence, a diagnosis of pseudocyst of spleen was considered (Figs 3 to 6).

## DISCUSSION

Pseudocysts of spleen are rare in clinical practice. They usually develop secondary to trauma.<sup>1</sup> False splenic cysts or the pseudocysts comprise 75% of the nonparasitic cysts.<sup>2</sup> Pseudocysts lack a lining epithelium and thus are differentiated from the true cysts on histology.<sup>4</sup>

Pathogenesis of cysts of spleen is yet to be discerned. Resolved and liquefied hematoma as a result of abdominal trauma is thought to give rise to pseudocysts of spleen, but can be an outcome of infection or degeneration also.<sup>7</sup> In the present case, the cyst could be a consequence of resolved hematoma due to antecedent trauma.

Cysts of the spleen are usually discovered incidentally by abdominal imaging.<sup>8</sup>

Symptoms if appear correspond to the size and position of the cyst. Common presentations include left hypochondrial pain and discomfort due to splenomegaly and capsular stretch, nausea, and vomiting due

to compression effect.<sup>9</sup> In the present case also the patient presented with left hypochondrial pain. Also there was splenomegaly. Complications of splenic pseudocysts include rupture, hemorrhage, and infection.<sup>9</sup>

The pseudocyst is formed of dense fibrous cyst wall lacking epithelial lining and infrequently contains hemosiderin.<sup>10</sup> Likewise, in our case, there was a calcified thick fibrous cyst wall with absence of epithelial lining. Raised levels of serum cancer antigen 19-9 are noted in most true cysts but are seldom raised in hemorrhagic pseudocysts, which lack epithelial lining.<sup>10</sup>

Surgery is the primary choice for the prevention or treatment of complications of pseudocysts.<sup>1</sup> Splenectomy is the treatment of choice for large cyst with minimal splenic tissue and is curative. Conservative treatment is opted for small cysts, which helps safeguard the immunological function of spleen.<sup>11</sup>

## CONCLUSION

Splenic cysts are uncommon lesions of spleen. Parasitic cysts are the most common type among them. Splenic hydatid cyst caused by *E. granulosus* is the commonest parasitic cyst. Pseudocysts of spleen are rare and usually develop secondary to trauma. It is important to distinguish pseudocysts from other splenic cysts, especially from the hydatid cyst.

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