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EPIDERMOID CYST OF THE SPLEEN*

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Non-parasitic, benign cysts of the spleen are exceedingly rare. A simplified and current classification of these cysts was published in 1958[1-3]. Of over 650 cases of benign cysts reported in the world literature[4], epidermoid cysts comprise approximately ten percent[1,2,5]. They occur predominantly in children (generally under the age of 15) and young adults. There is slight predilection for females[1,6,7].

Of the 160 splenectomies performed over an eighteen-year-period at the Hacettepe University Children's Hospital, three cases of cysts have been encountered, and only one of them was diagnosed as an epidermoid cyst.

Case Report

A sixteen-year-old girl with a history of intermittent pain in the left upper quadrant of the abdomen and left shoulder was examined at the Hacettepe University Children's Hospital. The pain which was unrelated to activity and unrelieved by food intake or antacids, was first noted three years ago. The patient had no history of previous trauma.

Physical examination was completely unremarkable. The hemoglobin level, leukocyte count, peripheral blood smear, platelet count, urinalysis, prothrombin time and liver function tests were all within normal limits. Roentgenograms of the chest and abdomen were also normal.

Ultrasound examination of the abdomen revealed a single cystic mass within the spleen measuring 6 ×8 cm. Computerized tomography confirmed the presence of the lesion (Fig. 1).

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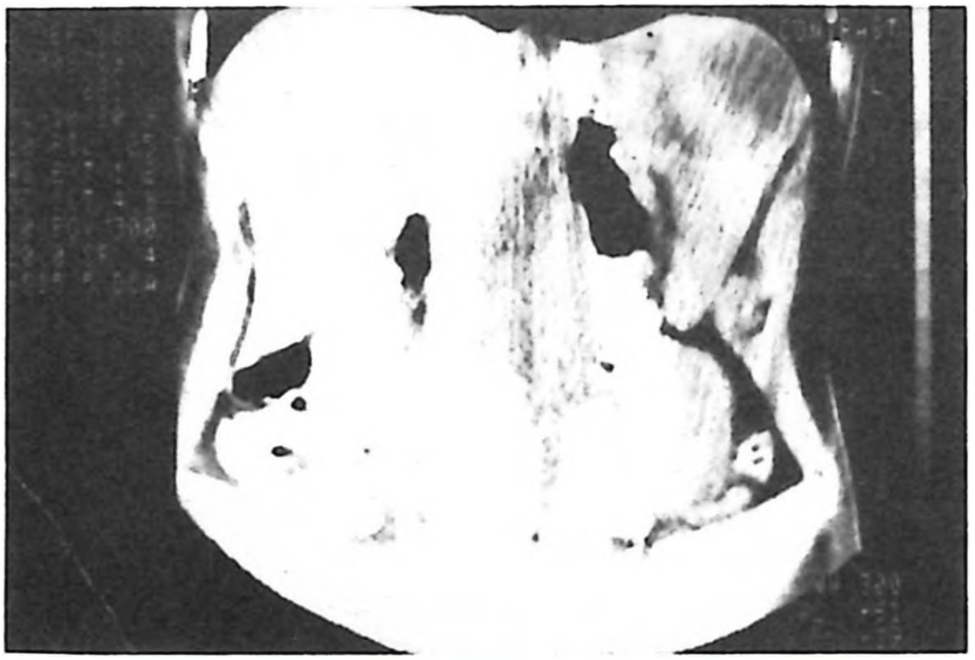

Fig. 1: Computerized tomography illustrating a single cystic lesion within the spleen.

Exploratory laparotomy performed showed no evidence of hydatid disease. A moderately enlarged spleen containing a large cystic lesion was found, and pale yellow, serous fluid was aspirated. Uninvolved splenic tissue could not be preserved due to an unsuitable vascular anatomy. A total splenectomy was performed. The postoperative course of the patient was uneventful.

Macroscopically, the multilocular cystic cavity revealed a thick, glistening, trabeculated fibrous capsule. The adjacent splenic tissue appeared normal (Fig. 2).

Fig. 2: Cut surface of the spleen showing trabeculated lining of the cyst (arrows indicate satellite cysts).

Histopathologically, the cyst was lined with stratified squamous epithelium with focal keratinization and no skin appendages. Several microcysts were present within the thick fibrous wall. A pathologic diagnosis made indicated epidermoid cyst of the spleen (Figs. 3A, 3B).

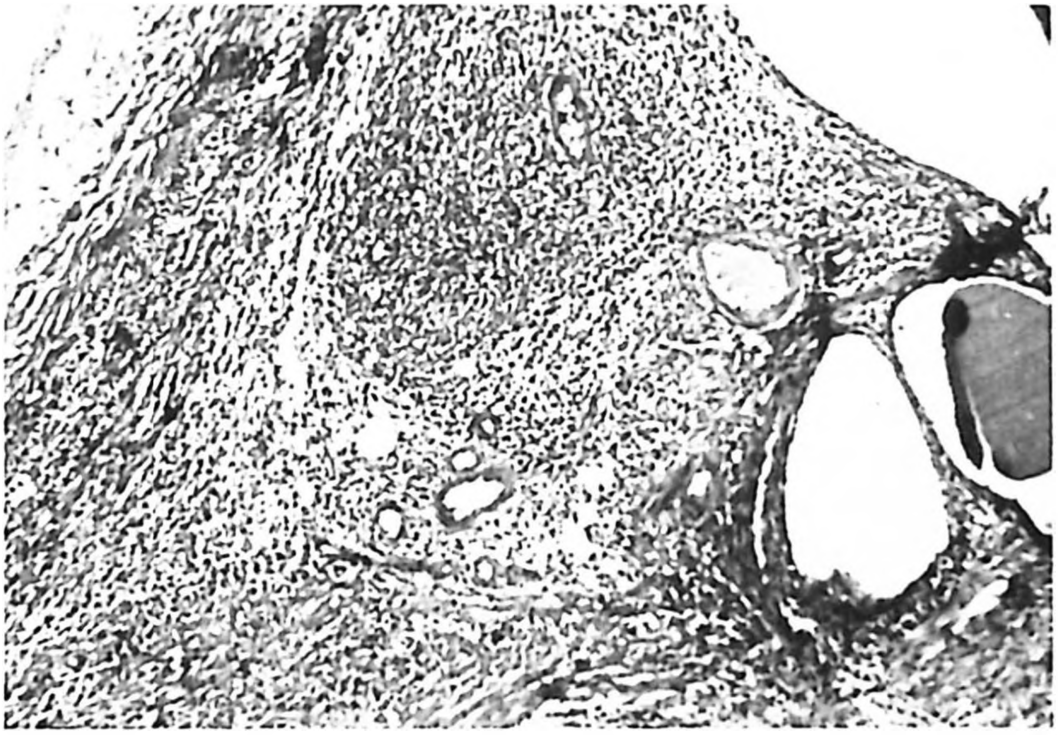

Fig. 3A: Multilocular cystic spaces and focal inflammatory reaction in cyst wall (H.E. × 100).

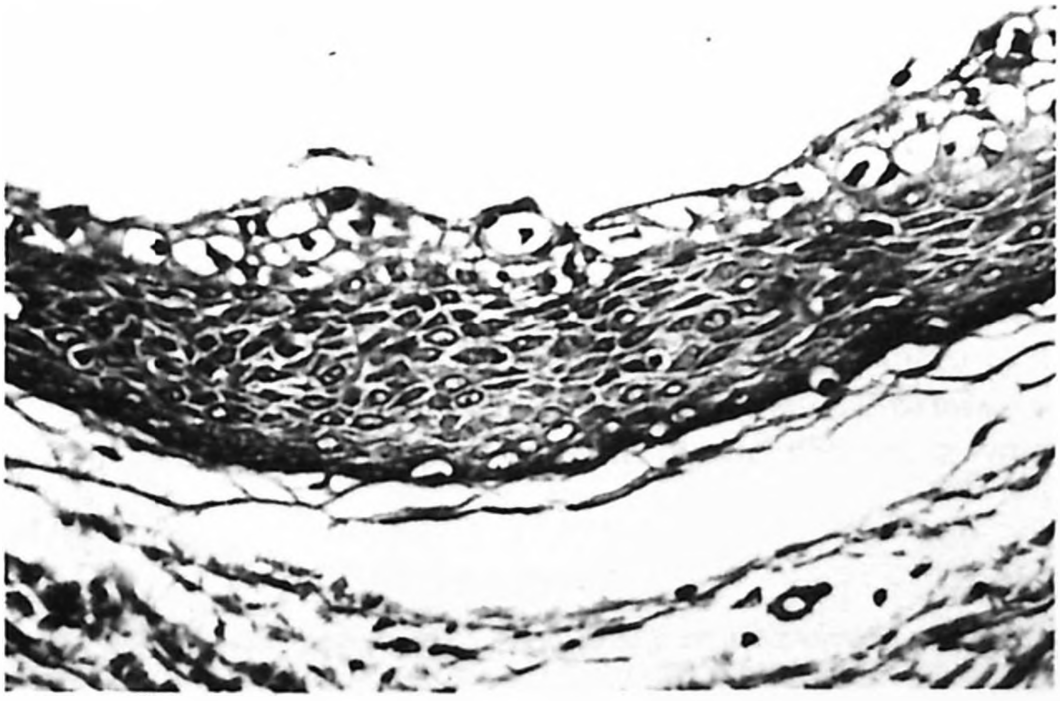

Fig. 3B: Epidermoid cyst lined by stratified squamous epithelium without skin appendages (H.E. × 400).

Discussion

The exact origin of epidermoid cysts are unknown[2]. However, most authors agree on the congenital nature of the lesion[2,7]. They are usually unilocular, and are sometimes accompanied by small satellite cysts, as in our case[2,8].

Symptoms in patients with splenic cysts are usually negligible. A vague, intermittent pain, generally described in the left upper quadrant and left shoulder is the most common presenting complaint. Large epidermoid cysts of the spleen predispose them to traumatic rupture and infection. Acute and severe symptoms are caused by hemorrhage.

Physical examination may be normal or reveal a left upper quadrant mass. Routine laboratory tests and roentgenograms are usually normal. In suspected cases, abdominal ultrasonography and computerized tomography are the most reliable studies for accurate preoperative diagnoses, and if they show a single cystic structure within the spleen, further invasive diagnostic studies such as selective splenic arteriography are unnecessary. However, epidermoid cysts are not distinguished preoperatively from other benign cystic tumors of the spleen. Most of the cystic lesions have been treated by total splenectomy. However, recently. some cases have been reported in the literature which were treated by partial splenectomy[4,7,9].

We believe that in order to prevent post-splenectomy sepsis, partial splenectomy should be preferred whenever possible. Since the splenic vascular distribution is easily visible during the operation, preoperative splenic arteriography is not necessary. However, total splenectomy may be unavoidable if there are large cysts occupying almost all of the spleen and/or inappropriate vascular tributaries, as in our case.

Summary

A sixteen-year-old girl treated by total splenectomy for epidermoid cyst of the spleen is presented. Epidermoid cysts of the spleen account for ten percent of non-parasitic cysts. Abdominal ultrasonography and computed tomography are the most reliable studies available in the diagnosis of these cysts. Partial splenectomy is the best mode of treatment for this disease, if feasible.

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