Parasitic Cyst within Large Hemangioma Arising From Spleen: A Rare Case Report

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ABSTRACT
Cavernous hemangioma is a rare disorder of the spleen with few cases being reported in literature. Even then, it is the most common primary neoplasm of the spleen which rarely attain the large size, usually being less than 2 cm. Splenic hemangioma are usually asymptomatic and discovered incidentally. They are not treated unless they are symptomatic or very large with an increased risk of hemorrhage. We present a case of 35 years old manual laborer patient, CT abdomen showed large splenic hemangioma measuring 7.1x6.2x6.3cm in upper pole and underwent open splenectomy. Histopathology revealed it to be cavernous hemangioma of spleen with parasitic cyst within the hemangioma, which is being very unusual presentation and unknown correlation. While isolated parasitic cyst and hemangioma of spleen are known the association of both is unanswered in the present literature.

KEYWORDS: Cavernous haemangioma of spleen, Parasitic cyst, splenectomy

INTRODUCTION
Cavernous hemangioma is a rare disorder of the spleen with few cases being reported in literature. Even then, it is the most common primary neoplasm of the spleen which rarely attain the large size, usually being less than 2 cm[1]. Cavernous hemangiomas are congenital hamartomatous lesions that originate from the mesodermal tissues, which are composed of large dilated blood vessels and contain large blood-filled spaces that are caused by dilation and thickening of the walls of the capillary loops[2]. They have been reported in different organs, including the liver, spleen, colon, retroperitoneum, adrenal glands, soft tissues, bone, central nervous system, and mediastinum[2, 3]. No literature gives correlation between cavernous hemangioma and the parasitic cyst either as causal factor or as complication. In this case report, we present a rare incidental presentation of cavernous hemangioma of spleen with parasitic cyst within.

CASE REPORT
A 35 year old married lady, laborer by occupation, known case of diabetes mellitus on medication presented with pain abdomen in the left hypochondriac region with menorrhagia. Her routine blood investigations were normal. Ultrasonography showed splenic mass and was further evaluated with CECT of the abdomen (Figure 1) which showed focal hypodense lesion in the splenic parenchyma demonstrating centripetal filling pattern consistent with splenic hemangioma of size 7.1x6.2x6.3cm in upper pole and also subserosal fibroid of the anterior myometrium of body of uterus.

Patient was planned for splenectomy in view of left hypochondriac pain and manual laborer status with risk of rupture of hemangioma which is more than 4 cm. Patient underwent open splenectomy and peroperatively spleen was enlarged with large mass in the upper pole of the spleen with remaining part maintaining normal architecture and other solid organs appeared to be normal. Procedure was uneventful. Cut section of splenic gross specimen showed parasitic cyst within the large upper pole Hemangioma (Figure 2). Histopathologicalexamination revealed dilated spaces filled with RBC’s (Figure 3) and calcified parasitic parts (Figure 4), reported as cavernous hemangioma of spleen with parasitic cyst, possibility of Echinococcal cyst. Patient was treated postoperatively with course of antibiotics and anthelmintic medications with supportive analgesics, patient recovered well.
DISCUSSION

Hemangioma in general is a relatively common mesenchymal tumor that typically arises in skin and subcutaneous soft tissue and occasionally in viscera. Among the visceral organs the liver is the most frequent involvement location. However, its occurrence in the spleen is rare[4]. Benign vascular endothelial origin tumours are the most common tumors of the spleen. They include hemangioma, hamartoma, littoral cell angioma, lymphangioma, hemangioendothelioma and hemangio-pericytoma[5]. The differential diagnosis of splenic vascular tumour is broad and may represent benign (haemangioma, hamartoma, lymphangioma), indeterminate (littoral cell angioma- LCA, haemangioendothelioma, haemangiopericytoma), or malignant neoplasms (angiosarcoma)[6]. Although unusual, haemangioma is the most common primary splenic neoplasm. They are usually small, less than 2 cm in size. Haemangioma presenting as giant splenomegaly is very rare. Haemangiomatas may be single or multiple (splenic haemangiomatosis), or may be part of generalized angiomatosis when haemangiomas involve multiple organs, especially the liver and skeleton [1]. Cavernous haemangioma is an unencapsulated mass of dilated endothelial-lined vascular channels filled with slow-flowing blood[1].
These tumors frequently are asymptomatic and discovered incidentally at imaging, surgery or autopsy, but can have serious consequences. The diagnosis of such lesions can be challenging, and ultrasonography and CT have been used. Ultrasound scanning reveals a solid mass with a heterogeneous multinodular appearance, whereas CT reveals a homogenous or a heterogeneous mass, or a mixed picture [7]. MR imaging is more sensitive and specific than other imaging modalities in the diagnosis of splenic haemangioma. It can be used for imaging splenic lesions in which differential diagnosis is not reached by CT. They are typically hyperintense at T2-weighted MR imaging with a centripetal filling pattern after administration of gadopentetate dimeglumine [1].

Splenic hemangioma mass lesion should not be biopsied percutaneously, as biopsy may potentially cause a rupture or bleeding of the tumor[3]. The treatment for cavernous hemangioma is surgical excision if the tumour is large, more than 4cm [7, 8, 9, 10, 11]. Large tumours are resected for the fear of high mortality following traumatic rupture[11, 12, 13]. Laparoscopic splenectomy is lately becoming the norm, as it is associated with reduced pain and low morbidity.

Parasitic cyst of the solid organ is not infrequent, but more commonly seen in liver than spleen. There is no correlation in occurrence of parasitic cyst in hemangioma of solid organ and not described in any of the literature, but in our case histopathological examination showed coexistence of parasitic cyst(suspected of Echinococcal cyst) within large cavernous hemangioma of the upper pole of the spleen which is being rare presentation with unknown correlation. While isolated parasitic cyst and hemangioma of spleen are known, the association of both is unanswered in the present literature. There is need to arrive at hypothesis for coexistence of both condition in isolated solid organ and its impact on the patient management.

CONCLUSION

Splenic hemangioma is rare benign tumour and may be associated with involvement of other organs. Splenic hemangioma should be considered one of rare differential diagnosis in patients with left hypochondriac pain. It needs proper evaluation as it may turns out to be malignant variants or may be associated with generalized hemangioma. Splenectomy is treatment of choice in symptomatic large hemangioma. Sometimes it may show some associated pathology, as in our case showing parasitic cyst within, which needs more case studies for evaluation of association of each other and management.

REFERENCES


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