

Angioleiomyoma of Broad Ligament: A Rare Variant of Leiomyoma

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Abstract

Angioleiomyoma, which is synonymous with vascular leiomyoma, is an extremely rare and uncommon variant of leiomyoma which is a benign mesenchymal tumor. It originates from the smooth muscle cells and contains numerous thick-walled blood vessels. Although the common location is in the skin of the lower extremities, a few cases of uterine leiomyoma have also been reported in middle-aged women.¹ Patients with uterine leiomyomas usually present with abdominal pain, menorrhagia, and abdominal mass. Angioleiomyoma in the broad ligament is extremely rare. We present one such rare case of broad ligament angioleiomyoma occurring in a 40-year-old female patient.

Key words: Angioleiomyoma, Benign, Broad ligament mesenchymal tumor

INTRODUCTION

Angioleiomyoma or vascular leiomyoma is a benign mesenchymal tumor of smooth muscle cell origin. It is most often seen in the subcutis of the lower extremities. Although a few cases of uterine angioleiomyoma have been reported in literature, broad ligament angioleiomyomas are extremely rare.¹ Keeping this in view, a rare case of broad ligament angioleiomyoma is reported here. Angioleiomyomas are commonly seen in the 4th and 5th decade of life. Uterine angioleiomyomas usually present with menorrhagia due to local dysregulation of uterine vascular structures, the presence of venous plexuses and elaboration of certain growth factors by tumor cells.² They are benign mesenchymal tumors composed of interlacing bundles of smooth muscle cells with interspersed thick blood vessels. They have to be differentiated from other closely related mesenchymal tumors with proliferated vascular channels.

CASE REPORT

A 40-year-old female patient presented with a mass per abdomen of 6 months' duration. A vaginal examination revealed a firm mass measuring 6/5 cm in the left fornix. A speculum examination revealed no abnormalities.

Ultrasonography revealed a homogenous solid mass in the left lower abdominal region. The mass was hypodense in attenuation and showed mottled heterogenous enhancement.

A provisional clinic-radiological diagnosis of broad ligament fibroid was offered.

The patient underwent total hysterectomy with bilateral salpingo-oophorectomy, and the specimen was submitted for histopathological examination.

Gross Examination Findings

Uterocervix with bilateral adnexae and a mass in the left sided broad ligament was received (Figure 1). Cut section of uterocervix showed an endometrial thickness of 0.2 cm. The broad ligament mass was measured 10 cm × 6 cm × 5 cm. A external surface was smooth with congested and dilated blood vessels. Cut surface was gray-white, firm with whorling patterns. Areas of hemorrhage and multiple

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www.ijss-sn.com

Month of Submission : 12-2015
 Month of Peer Review : 01-2016
 Month of Acceptance : 01-2016
 Month of Publishing : 02-2016

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tiny cysts were shown in Figure 2. Bilateral adnexae were normal in appearance.

Microscopy

Uterocervix and bilateral adnexae showed no significant abnormalities. The broad ligament mass showed a benign mesenchymal tumor with prominent vascular channels lined by flattened endothelium and surrounded by loosely arranged interlacing fascicles and bundles of spindle cells with oval and bland nuclei (Figure 3).

Final Diagnosis

Angioleiomyoma

DISCUSSION

Angioleiomyoma a benign mesenchymal neoplasm composed of smooth muscle cells and thick-walled blood vessels. Although commonly seen in the skin of extremities, it is uncommon in the uterus.¹ Broad ligament angioleiomyoma is a more uncommon than the uterine counterpart.³ The patients with uterine angioleiomyomas usually present with abdominal pain which is believed to be related to ischemia due to vascular contraction.⁴ However, our patient presented with a mass per abdomen. On gross examination, the tumor exhibits a whorling pattern and a multi cystic appearance due to the dilated vascular channels as in our case. Histologically, angioleiomyomas are divided into three subtypes namely, capillary, cavernous and mixed. Our case belonged to the capillary subtype.⁵ Unlike uterine leiomyomas which are presumed to arise from parenchymal myometrial cells, angioleiomyomas arise from the smooth muscle cells of the vessel walls.⁶ Differential diagnosis includes angiofibroma, angiomyolipoma, angiomyofibrosarcoma and perivascular epithelioid tumors. Duhig and Ayer in their study observed that there was no recurrence following excision in any of their cases.⁷ Other complications like spontaneous rupture of the tumor, consump coagulopathy, and pseudo-Meigs syndrome have been reported.⁸⁻¹⁰ Our patient had an uneventful post-operative course and recovery on her follow-up after 6 months.

CONCLUSION

Angioleiomyoma, a rare variant of uterine leiomyoma is a benign mesenchymal tumor amenable to surgical excision. It has to be differentiated from the other mesenchymal neoplasms with prominent vascular components.



Figure 1: Uterocervix with bilateral adnexae and a mass in the left sided broad ligament

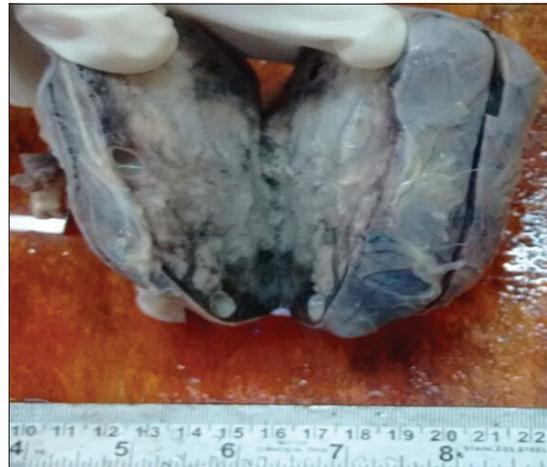


Figure 2: Cut surface of broad ligament mass - Gray-white, firm with whorling patterns, areas of hemorrhage and multiple tiny cysts

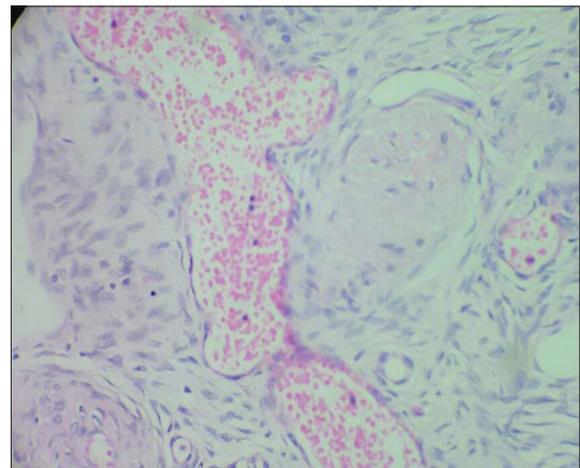


Figure 3: Benign mesenchymal tumor with prominent vascular channels lined by flattened endothelium surrounded by swirls of spindle cells having oval and bland nuclei

ACKNOWLEDGMENT

We wish to acknowledge Dr. M G Shivaramu, Principal Adichunchanagiri Institute of Medical Sciences for his constant support and encouragement.

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How to cite this article: Hemalatha AL, Nanjundaswamy DN, Sahni S, Kumari A. Angioleiomyoma of Broad Ligament: A Rare Variant of Leiomyoma. *Int J Sci Stud* 2016;3(11):290-292.

Source of Support: Nil, **Conflict of Interest:** None declared.