Epithelioid Leiomyoma of Vagina

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Citation

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Abstract

Leiomyoma is the most common benign mesenchymal tumor of the vagina. However, leiomyoma with epithelioid features are very uncommon in the vagina. We report a rare case of epithelioid variant of leiomyoma in a 40-year old woman who presented with a painless vaginal mass. Immunohistochemistry against smooth muscle actin was done for confirmation.

INTRODUCTION

Leiomyoma is the most common benign mesenchymal tumor of the vagina[1,2] . However, leiomyoma with epithelioid features are very uncommon in the vagina[3]. We report a rare case of epithelioid variant of leiomyoma also known as leiomyoblastoma of the vagina which usually occurs in the stomach or uterus.

CASE REPORT

A 40-year old woman presented with a soft, non-tender mass in the anterior vaginal wall. The mass had been enlarging slowly and causing progressive discomfort with no drainage, erythema or fever. An examination revealed a 4x3 cm solid mass in the anterior vaginal wall overlying mid urethra. The mass was excised totally with surgically free margins. Excised specimen was greyish-brown, globular measuring 3x2x1.5cm with a fleshy homogeneous cut surface. Microscopically the dominant pattern was that of epithelioid cells arranged in vague nests with intervening collagen (Fig-1). In some areas, spindle cell features resembling smooth muscle were identified. The nuclear morphology was uniform throughout and consisted of round, regularly shaped nuclei. There was no evidence of necrosis or increased mitotic activity. The tumor was sharply demarcated peripherally and was covered throughout by a thin layer of delicate fibrous connective tissue. The final pathologic diagnosis was epithelioid leiomyoma. Immunohistochemistry shows positive staining with smooth muscle actin (Fig. 2) and negative staining with S-100 protein and cytokeratin, thus confirming the pathologic diagnosis. The patient is asymptomatic without recurrence at 6-months follow-up.

Figure 1

Fig 1: Insert (lower left) shows low power view of epithelioid leiomyoma (H&E, 200x); at higher magnification (H&E, 400x) benign nuclear features with abundant cytoplasm of epithelioid leiomyoma can be appreciated.

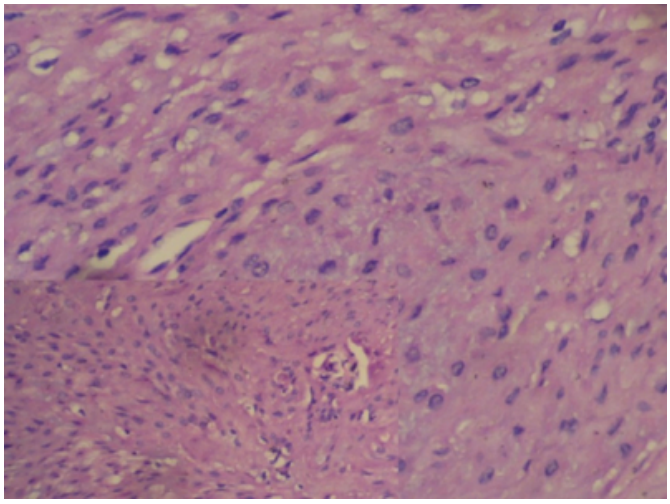
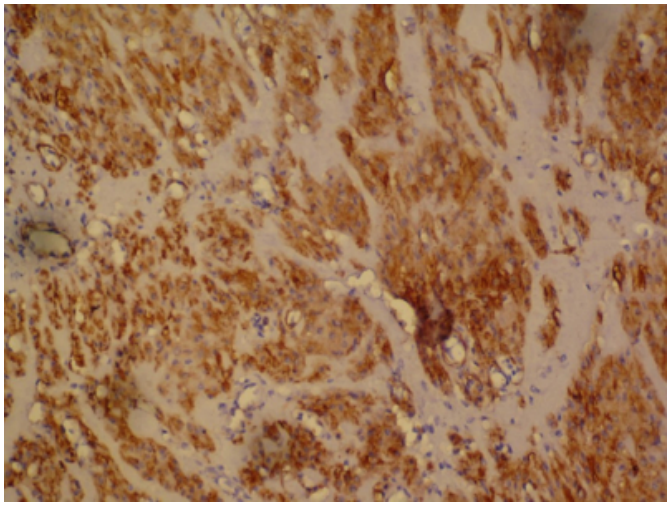


Figure 2

Fig 2: Strong positivity for smooth muscle actin shown by epithelioid leiomyoma (200x, Immunohistochemistry for smooth muscle actin)



DISCUSSION

Vagina is not easily inspected by patients. Symptoms such as vaginal bleeding, pain and dyspareunia may be a patient's chief complaints while the lesion may not have been noticed by the patient. Smooth muscle tumors are rare in the vulva and vagina, although they are the most common mesenchymal tumor of the vagina[4] They may occur at any level of vagina and tend to be solitary. Tavassoli and Norris[2,5] found that smooth muscle tumors of vulva and vagina occurred predominantly in white women ranging from 20 – 70 years of age. On gross examination the tumor has the same appearance as that of uterine leiomyoma. Vaginal leiomyomas are well circumscribed and range in size from 0.5 to 15 cm, with a median of 3 cm. [2] The microscopic features are also similar to those in uterine leiomyomas, with hyalinization and myxoid changes being frequent. Epithelioid morphology is defined by the presence of round to polygonal cells with a central nucleus and usually abundant acidophilic or clear cytoplasm. Immunohistochemistry shows positive staining for vimentin and smooth muscle actin and negative staining for S-100 protein and cytokeratin. As is true of uterine leiomyomata, the vaginal lesions are estrogen dependent. Of major importance is the distinction between benign and malignant tumors. Tavassoli and Norris[2] did a clinicopathological study of 60 vaginal smooth muscle tumors and developed criteria for malignancy that included moderate to marked cytological atypia and at least five mitotic figures per 10 high power fields. All the vaginal tumors were circumscribed except one with infiltrating margins and this was the only tumor with metastasis. It appears that infiltrative margins are likely to be associated with aggressive behaviour. The differential diagnosis of a midline anterior vaginal mass includes urethral diverticulum, fibroepithelial polyp, cystocele or vaginal malignancy. Tumors arising from the upper part of vagina is mistaken for cervical fibroid. Smooth muscle vaginal tumors are treated surgically. Benign lesions should be excised conservatively. Recurrence is uncommon but reported.[6] In short, this case report highlights that epithelioid leiomyoma though commonly seen in stomach and uterus, should be looked for in mesenchymal tumors of vagina as well.

References

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