VAGINAL LEIOMYOMA - A RARE CASE REPORT

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ABSTRACT

BACKGROUND

Leiomyomas are common benign tumours of uterus. Vaginal leiomyomas are rare benign solid tumours with only 330 cases reported in literature till now. The clinical features which they present are variable. Here, we report 2 cases of anterior vaginal wall leiomyoma and their surgical removal through vaginal approach.

KEYWORDS

Vaginal Leiomyoma.

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BACKGROUND

Benign vaginal tumours are uncommon but occur within the vaginal wall and include myoma, fibromyoma, neurofibroma, papilloma, myxoma and adenomyoma.¹

Leiomyoma of vagina is a rare condition. Leiomyomas of the vagina are not related to those of the uterus either in the frequency or in racial distribution; the Caucasian/black ratio for uterine and vaginal leiomyomas is 1:3 and 4:1 respectively (Bennet and Ehrlich, 1941).

Vaginal leiomyoma are not common; Bennet and Ehrlich report them as 0.024% (12/50000) and Wharton (1947) as 0.55% (266/47500) of gynaecological specimens. Hertig and Gore (1960) considered leiomyomas the most common vaginal tumours of benign connective tissue origin and found 200 cases reported up to date of their publication. Chein et al (1980) have shown that lesions designated as vaginal myxoma are actually of smooth muscle origin and thus represent myxomatous vaginal leiomyomas.² Here, we report a case of vaginal leiomyoma who presents with mass per vagina since 2 months with no other significant complaints.

CASE REPORT

A 32-year-old P2L2A1 came with the complaints of something coming out of the vagina since 2 months. Her menstrual cycle being regular with no other complaints apart from mass per vagina. A per vaginal examination revealed a mass of 4 × 4 cm in the lower part of the anterior wall of the vagina. An ultrasonography performed showed 2.4 × 2.3 cm heterogeneous mass probably pedunculated cervical fibroid. The tumour was surgically removed by vaginal route. A Foley's catheter was introduced in the urethra for protecting the urethra. Vertical incision was given over the mass and it

was separated from the capsule and fibroid was enucleated after clamping the base of the fibroid and stitch was taken. Redundant vaginal wall was closed vertically. The tumour was sent for the histopathological examination. Gross appearance showed 4 × 4 cm solid mass with a whirling appearance in cut section. Microscopic examination revealed smooth muscle cells. The patient was discharged on post-operative day 2. Surgery lasted for half an hour.

a. Vaginal Leiomyoma - Incision made on prominent Vaginal Leiomyoma
b, c. Dissection made for Enucleation of Myoma

Case Report 2

A 42-year-old P2L2 came with the complaints of mass per urethral region since 3 months. Her menstrual cycle being regular. On per speculum examination a mass arising in the right anterolateral wall of the vagina, firm to cystic in consistency close to urethra. Per vaginal examination revealed irregularly enlarged mass from right lateral wall. On TVS showed hypoechoic mass of 2.8 × 2.6 cm in the anterior vagina. MRI pelvis showed large homogeneous solid lesion from the urethral vaginal junction possibilities of paraurethral/vaginal leiomyoma. The tumour was removed vaginally. Postoperative period was uneventful.

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a. Vaginal Leiomyoma
b. After removal of Leiomyoma
c. Leiomyoma Cut Section

a, b, c, d - Smooth Muscle Cells

DISCUSSION

The vagina is an uncommon site for the development of benign tumours.³ Leiomyomata of the vagina are tumours, which are extremely rare and as first described case in 1733 by Denys de Leyden among 330 reported cases⁴ and take the form of round projections into the vagina.

They are either spherical or oval in shape with the characteristic firm consistence of a myoma. In Nel and Tiltman's (1978) series the gross appearance of the leiomyoma was sufficiently unremarkable that most were initially diagnosed incorrectly. Typically, the vaginal leiomyoma is described as discrete, firm, easily shelled out with a whorled white, cut surface. The lesion may present at the introitus and is usually less than 3 cm in maximum dimension, although large 'giant' lesions occasionally occur. The larger lesions are more likely to be ulcerated, otherwise they are ovoid, submucosal masses which are not commonly pedunculated; there is no apparent site of predilection within the vagina. In Tavassoli and Norris (1979) series all but three of 60 vaginal leiomyomas were single nodules; two irregular in outline and had satellite nodules.

The aetiology of vaginal leiomyomas is not better understood than is that of the corresponding and more common uterine lesion. Variable opinion exists as to the exact cell of the origin of such lesions. Chen et al (1980) suggest four possible origins for such lesions -

1. Myoepithelial cells (such as found in Bartholin's glands; such an origin might be expected in vaginal leiomyomas found in or near the introital/ vestibule region).
2. Smooth muscle cells of venule.

3. Smooth muscle cells of the vaginal muscularis (especially in the case of paravaginal lesion).
4. Myofibroblasts.²

The range of patient's ages includes virtually the entire span of the reproductive years, but the average patient is in her fourth decade (Martinetti and Comiti, 1980). Only a small number of patients are in the fifth decade or pregnant. Most patients with vaginal leiomyomas are asymptomatic (Traunier et al, 1980). With further growth, the lesion becomes symptomatic as other tissues are compressed and local function is compromised. Some women complain of dyspareunia and metrorrhagia (Martinetti and Comiti, 1980). Involvement of the rectovaginal septum may give rise to bowel complaints (Milano et al, 1980), while urethrovaginal septal involvement can result in urinary symptom (Brown et al, 1975; Freed et al, 1975). Finally, some women may simply complain of a 'sense of weight' (Hertig and Gore, 1960).²

Diagnosis by ultrasonographically is difficult preoperatively, but MRI usually clinches the diagnosis. In MRI, they appear as well-demarcated solid masses of low intensity in T1 and T2 weighted images with homogeneous contrast enhancement, while leiomyosarcomas and other vaginal malignancies show characteristic high T2 signal intensity with irregular and heterogeneous areas of necrosis or haemorrhage.

Microscopically, vaginal leiomyoma appears no different than leiomyomas elsewhere, being composed of palisading and interwoven fascicles of spindle-shaped smooth muscle cells. Within the lesion one may find areas of oedema, increased cellularity, cellular and nuclear atypia, 'myxomatous change,' epithelioid cells and mitotic figures (Tavassoli and Norris, 1979; Chen et al, 1980). In this regard and with respect to 'malignant change,' vaginal leiomyomas seem to resemble closely if not exactly their uterine counterparts. Hence, histopathological confirmation is the gold standard of diagnosis and also beneficial to rule out any possible focus of malignancy.

Morphological changes are the only known markers of malignancy in vaginal smooth muscle tumours. Tavassoli and Norris (1979) reported only five recurrences in 60 vaginal leiomyomas, all of which were 3 cm or larger in size, had 5 or more mitotic figures per High Power Field (HPF) and varying degrees of cellular atypia. The authors concluded that prognosis was related to mitoses/10 HPF and cellular atypia but not to size alone. Hence, those lesions with 5 or more mitoses/10 HPF, moderate or marked cellular atypia and infiltrating margins were more likely to behave as a leiomyosarcomas; those lesions which were 3 cm or more in maximum dimension were most likely to recur. In their cases, the only death which occurred with metastases was in association with an ulcerated tumour which had satellite nodules and 16 mitoses/10 HPF. All recurrences in Tavassoli and Norris' (1979) cases occurred within two years of the original surgery. In Nel and Tiltman's (1978) series of patients, all of whom had lesions of 3 cm or smaller in size. There were no recurrences in a follow-up period, which ranged from 8 months to 20 years.

There are no reported associations of other diseases with vaginal leiomyoma of the vagina who had previously had removed identical smooth muscle tumours of the oesophagus, stomach and uterus.

Treatment is always surgical. Surgical removal of the tumour through vaginal approach, preferably with urethral catheterisation to protect the urethra during surgery, is usually the treatment of choice. It can be shelled out without much difficulty and surgical removal is a simple procedure, though it may be accompanied by severe bleeding.^{2,5}

CONCLUSION

Leiomyoma are the commonest in the uterus. It is found in other sites also, in which vagina are one of its rare entity. Histopathological confirmation is gold standard. Treatment of choice is enucleation.

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