AMJ Australasian Medical Journal [AMJ 2019;12(4):119-122]

Vaginal myoma – A rare type of vaginal tumour

Angel Yordanov[1], Stanislav Slavchev[2], Vasil Nanev[3], Denislava Ivanova[4], Momchil Ivanov[5], and Strahil Strashilov[6]

1. Department of Gynecologic Oncology, Medical University Pleven, Bulgaria
2. Clinic of Gynaecology, University Hospital "St. Anna"-Varna, Bulgaria
3. Department of Surgical Oncology, Medical University Pleven, Bulgaria
4. Department of Obstetrics and Gynecology, University Hospital Sofiamed, Sofia, Bulgaria
5. MHAT "Saint Paraskeva"-Pleven, Bulgaria
6. Department of Plastic Restorative, Reconstructive and Aesthetic Surgery, Medical University Pleven, Bulgaria

CASE STUDY

Please cite this paper as: Yordanov A, Slavchev S, Nanev V, Ivanova D, Ivanov M, Strashilov S. Vaginal myoma – A rare type of vaginal tumour. AMJ 2019;12(4):119–122. https://doi.org/10.35841/1836-1935.12.4.119-122

Corresponding Author:
Angel Danchev Yordanov
Clinic of Gynecologic Oncology, University Hospital "Dr. Georgi Stranski", Medical University Pleven, Georgi Kochev 8A, Bulgaria
Email: angel.jordanov@gmail.com

ABSTRACT

Vaginal myoma is an extremely rare benign tumour. Its clinical picture is multiform, core being the presence of pain symptom. This diagnosis is not that easy and malignant tumour should always be considered.

We present three clinical cases, where the formations differ in their dimensions, localizations and clinical pictures. We used one and the same method in their surgery and there was no recurrence during the follow up period.

We cannot rely on clinical symptoms or gynaecological examination to diagnose vaginal leiomyoma. The ultrasonography is only of orientational character. Therefore, each formation originating vaginally should be treated as malignant – it should be removed intact, without disrupting its entirety.

Key Words
Vaginal myoma, diagnosis, treatment

Implications for Practice:

1. What is known about this subject?
Vaginal myoma is a very rare type of vaginal tumour.

2. What new information is offered in this case study?
There are no diagnostic tools that can diagnosticate the vaginal myoma with absolute sure.

3. What are the implications for research, policy, or practice?
When treating vaginal mass, we must bear in mind that malignant tumour may be present in this vaginal mass.

Background

Vaginal leiomyoma is a very rare type of smooth muscle tumour and until nowadays less than 400 cases have been reported in publications worldwide. Bennett and Ehrlich found only nine cases in 50,000 surgical specimens and only one case in 15,000 autopsies reviewed at Johns Hopkins Hospital.[1] Usually they are small, originating from the anterior vaginal wall and are asymptomatic,[2] yet depending on their size and localization they may be accompanied by low abdominal pain, back pain, vaginal bleeding, dyspareunia and various urinary symptoms as voiding frequence or difficulty.[3] Sometimes the diagnosis is not easy and the differential diagnostic plan includes also cystocele, urethrocele, skene duct abscess, gartner duct cysts, urethral diverticulum, vaginal cysts, bartholin gland cysts, and vaginal malignancies.[1]

We present here three cases of vaginal myomas of different clinical manifestations and localization.

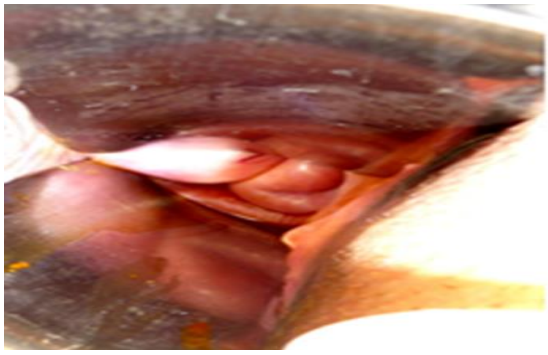
Case Details

First case: It relates to a 47-year-old patient with no concomitant diseases and family pedigree. She had surgical interventions for fibroadenoma of left mammal gland twice. She gave birth to three children and had 10 abortions by her own wish. Three months prior to her admission she was operated for uterine myoma of dimensions 5/5cm, performing supracervical hysterectomy sparing the ovaries. The histologic finding from this intervention was: uterine with leiomyoma, adenomyosis and proliferative endometrium.

When admitted into our clinic the complaints were of pain and feeling heaviness in the vagina. During the gynaecological examination a rounded, solid, motile tumour in the anterior vaginal wall of a 5cm diameter approximately 2cm away from the uterine cervix was found. The tumour surface was coated by normal vaginal epithelium. The abdominal echography revealed echo-homogeneous and positive formation of dimensions 5.72/5.35cm.

Due to the localization of the formation and the clinical examination data we diagnosed it as vaginal leiomyoma. Decision was taken it to be removed through vaginal route. After performing a longitudinal incision in the anterior vaginal wall the formation was easily removed (Figure 1).

Figure 1: Anterior vaginal wall formation

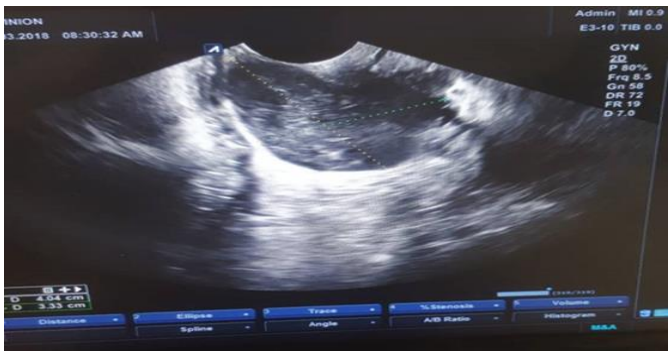


The histologic finding was: leiomyoma of distinguished hyalinization to shaping of hyaline 'infarcts' and a Ki67 proliferative index of 7 per cent. Material was examined from previous biopsy of material from hysterectomy – cell-type leiomyoma of moderate cellular polymorphism with a Ki67 proliferative index of 4 per cent, combined with adenomyosis the patient was discharged on the third day. Four years after the surgery no recurrence was observed.

Second case: It relates to a 41-year-old patient, admitted due to dull pain in the groins, irradiating to the anus, having started a month ago. She reported arterial hypertension. The preceding surgeries include two caesarean sections; myomectomy – 2012; supracervical hysterectomy sparing the ovaries – 2012; left adnexectomiy and cystectomy of right ovarii - 2015.

The gynaecologic examination found a rounded, solid Ty-formation of dimensions 4/4cm in midline 1/3 of posterior vaginal wall. Same was visualized by vaginal ultrasound test – echo-homogeneous, echo-positive formation of dimensions 4.64/3.33cm (Figure 2). Based on data from her medical record she had it for 10 years.

Figure 2: Ultrasound finding



Transvaginal enucleation of the reported formation was performed (Figure 3).

Figure 3: Intraoperative finding

The histology results were: bundle structured tumour, built up by spindle cells of elongated nuclei with rounded edges. Evidence of sectors with hyalinises. Clinical picture corresponding to leiomyoma.

The patient was discharged on the second day. One year after there was no recurrence.

Third case: It is about 46-year-old patient, reporting painfulness during sexual contact since several months. There is no report of family pedigree or concomitant diseases, she has two children, no abortions, no family

pedigree and concomitant diseases.

Previous surgeries – conisation of the uterine cervix for in-situ carcinoma, laparoscopic left cystadnexectomy for endometriosis – 2012; dilatation and curettage – 2012, 2013 for heavy menstrual bleeding; The gynaecological examination found a rounded, solid tumour formation, dimensions 1/2cm in the upper 1/3 of posterior vaginal wall.

The formation was enucleated through the vagina. Histological finding: soft tissue pieces and lesion, consisting of elongated cells of bundle- and swirl-type growth. The nuclei are elongated with rounded edges. Alpha SMA – uninterpretable, S 100 – negative. Clinical picture corresponding to leiomyoma. The patient was discharged on the second day. Three years after there was no recurrence of the disease.

Discussion

Leiomyoma is the most common benign tumour in females. Extra uterine fibroids are rare benign neoplasm which may cause diagnostic difficulties. Leiomyomas in female genital tract are common in the uterus and to some extent in the cervix followed by the round ligament, utero-sacral ligament, ovary, and inguinal canal.[4] Although they very rarely originate from the vagina, most often they proliferate from anterior, followed by lateral vaginal wall. More seldom they come out from vaginal posterior wall and may also occur after hysterectomy.[5] Usually the tumour is single, and most of them are small and slow growing. But these lesions are usually oestrogen dependent and can grow rapidly during pregnancy or regress after menopause.[6]

Females of Caucasian race and aged between 35 and 50 are most often affected.[7] Vaginal fibroids are single, benign, and slow-growing tumours but sarcomatous transformation has also been reported in the literature.[8] This transformation is not more likely occur in vaginal myoma than uterine myoma but malignancy check-up is necessary, and if malignancy is suspected, extensive removal is necessary. Usually an ultrasound examination is enough to set the diagnosis, but MRI is significantly more precise, especially in differentiating it from leiosarcoma. In MRI, vaginal leiomyomas appear as well-demarcated solid masses of low signal intensity in T1- and T2-weighted images, with homogenous contrast enhancement. Leiomyosarcomas show characteristically high T2-signal intensity with heterogeneous areas of haemorrhage or necrosis.[9]

The consistency may vary from solid to cystic and may be misleading. Patients are usually asymptomatic in early stage; symptoms arise with the growth of tumour and mainly due to compression effect to the adjacent structure.[10] Presentation can have varying symptoms including urinary obstruction, dysuria, dyspareunia, lower abdominal pain, vaginal bleeding etc.[3]

The treatment is surgical and generally the vaginal approach is recommended. When the tumour is large the combined abdominal and perineal approach can be used.[11] It is important tumour to be removed intact and the patient to be followed up because, while uncommon, recurrence has been reported.[12]

Our patients were between 41 and 47 years old which is responsible to the date of the literature. In two of the three cases it is localized in posterior vaginal wall and in two of the cases the patients had uterine myoma surgeries. The first case impressed us with the rapid formation growth, while in the second case the patient knew about this formation for 10 years and it had not been growing. In the third case the formation appeared about two years after the last gynaecological exam. The complaints in all the three cases were associated with pain syndrome. Following the tumour extirpation, the patients were discharged with no complications and no disease recurrence during the follow-up period.

Conclusion

We cannot rely on the clinical symptoms or gynaecological examination to diagnose vaginal leiomyoma. Ultrasonography (US) is only of orientational character. When treating vaginal mass, we must bear in mind that malignant tumor may be present in this vaginal mass and it should be removed intact, without disrupting its entirety.

References

1. Bennett HG Jr, Ehrlich MM. Myoma of the vagina. Am J Obstet Gynecol. 1941;42:314–320.
2. Freed SZ, Haleem SA, Wiener, et al. Bladder outlet obstruction caused by vaginal fibromyoma: the female prostate. J Urol. 1975;113:30–1.
3. Chakrabarti I, De A, Pati S. Vaginal leiomyoma. J Midlife Health. 2011;2:42–3.
4. Young SB, Rose PG, Reuter KL. Vaginal fibromyomata: Two cases with preoperative ssessment, resection and reconstruction. Obstet Gynecol. 1991;78:972–4.
5. Shrivastava D, Bhute S, Kakani A, et al. A Rare Case of Vaginal Leiomyoma Diagnosed Postoperatively. Journal of SAFOG. 2011;3(3):143–144.
6. Wu Y, Wang W, Sheng X, et al. A Misdiagnosed Vaginal Leiomyoma: Case Report. Urol Case Rep. 2015;3(3):82–

3. Published 2015 Mar 18. doi:10.1016/j.eucr.2015.02.004
7. Hartmann KE, Birnbaum H, Ben-Hamadi R, et al. Annual costs associated with diagnosis of uterine leiomyomata. Obstet Gynecol. 2006;108:930.
8. Cobanoğlu O, Gürkan Zorlu C, Ergun Y, et al. Leiomyosarcoma of the vagina. Eur J Obstet Gynecol Reprod Biol. 1996;70:205.
9. Shadbolt CL, Coakley FV, Qayyum A, et al. SM. MRI of vaginal leiomyomas. J Comput Assist Tomogr. 2001;25:355.
10. Zuber I, Nadkarni P, Nadkarni A, et al. Int J Reprod Contracept Obstet Gynecol. 2016;5(6):2047–2048.
11. Gowri R, Soundararaghavan S, Oumachigui A, et al. Leiomyoma of the vagina: an unusual presentation. J Obstet Gynaecol Res. 2003;29:395–8.
12. Dhaliwal LK, Das I, Gopalan S. Recurrent leiomyoma of the vagina. Int J Gynaecol Obstet. 1992;37(4):281–3.

PEER REVIEW

Not commissioned. Externally peer reviewed.

CONFLICTS OF INTEREST

The authors declare that they have no competing interests.

FUNDING

None

PATIENT CONSENT

The authors, *Yordanov A, Slavchev S, Nanev V, Ivanova D, Ivanov M, Strashilov S*, declare that:

1. They have obtained written, informed consent for the publication of the details relating to the patient(s) in this report.
2. All possible steps have been taken to safeguard the identity of the patient(s).
3. This submission is compliant with the requirements of local research ethics committees.