Leiomyoma of the Vagina: A Case Report

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Abstract

Vaginal leiomyoma is a rare clinical entity which has different clinical presentations. These tumors generally produce mobile, pain-free and well defined bordered masses. Vaginal leiomyomas may be asymptomatic or may produce pain or urinary symptoms. Surgical excision is the treatment of choice for these tumors. The excised material should be examined pathologically because of the chance of malignancy. In this article we reviewed the literature along with a case of vaginal leiomyoma.

Keywords: leiomyoma, vaginal neoplasms, surgical excision

Özet

Vajinal Leiomyom: Olgu Sunumu

Vajinal leiomyom, farklı klinik prezentasyonları olan nadir bir klinik antitedir. Bu tümörler genellikle mobil, ağrısız ve iyi sınırlı kitleler oluştururlar. Vajinal leiomyomlar asemptomatik olabilecekleri gibi ağrı oluşturabilirler ya da üriner semptomlara neden olabilirler. Cerrahi eksizyon bu tümörler için tercih edilen tedavi seçeneğidir. Malignite olasılığı nedeni ile eksize edilen materyalin histopatolojik incelemesi yapılmalıdır. Bu yazıda bir vajinal leiomyom olgusu eşliğinde, ilgili literatür gözden geçirilmiştir.

Anahtar sözcükler: leiomyom, vajinal neoplazm, cerrahi eksizyon

Introduction

Leiomyoma of the vagina is a rare entity and was first reported by Denys de Leyden in 1733; since that time approximately 300 cases have been reported in the world literature (1).

This rare tumor usually shows a variable clinical presentation and broad differential diagnosis that can lead to preoperative misdiagnosis. Careful histological examination of these tumors is essential, especially to exclude malignancy such as leiomyosarcoma.

The tumor is usually encountered in the midline anterior vaginal wall but rarely unusual presentations are reported (2). Surgical enucleation via a vaginal approach is the treatment of choice and the recurrence rate of leiomyoma of the vagina after removal is very low (3).

Case Report

A 48-year-old multiparous woman admitted to our hospital with the complaint of awareness of a mass in the vagina also with dyspareunia and difficulty in micturation for the last 18 months. There was no history of constipation, vaginal bleeding or abdominal pain.

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A smooth surfaced, semi-solid, mobile, 6x6 cm mass palpated in the anterior vaginal wall with a base of 4 cm. There was no cystourethrocele, rectocele, enterocele or uterovaginal prolapse. Cervix, uterus, and adnexa were unremarkable except for slight discharge.

All routine investigations including intravenous pyelogram were normal. Pelvic ultrasonography showed 58 x 50 mm echogenic mass arising from the anterior vaginal wall (Figure 1).

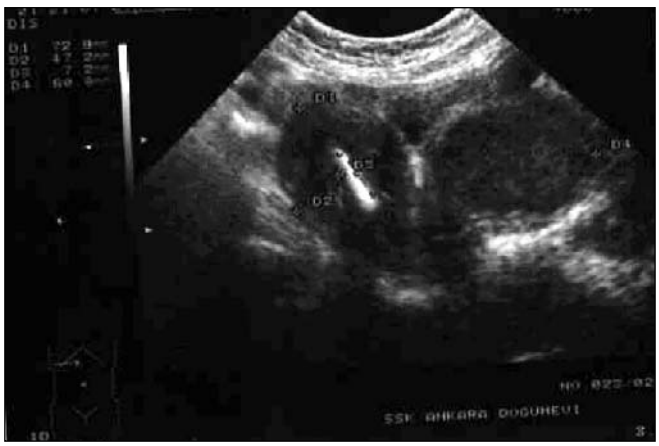

Figure 1. Transabdominal ultrasound image showing the echogenic mass in the vagina (Arrow).

A midline vertical incision was made over the vaginal mass which was enucleated from the paravaginal tissues by sharp and blunt dissection. Frozen-section examination reported that the mass is benign. Pathological examination revealed a well encapsulated, firm and 8x5x4 cm mass. Microscopic examination revealed a well differentiated benign leiomyoma.

The patient was discharged on the second postoperative day; 6 months later she was asymptomatic and voiding normally.

Discussion

Vaginal leiomyoma is a very rare tumor. Bennett and Erlich found only nine cases in 50000 surgical specimens and only one case was found in 15000 autopsies reviewed at the Johns Hopkins Hospital (3). However, it may be possible that the tumor having the characteristics of slow growth and small size does not produce symptoms at the onset and regresses spontaneously after the menopause, may not make itself evident in a large number of patients who never become aware of the disease.

The tumors usually arise from the anterior vaginal wall and **less commonly** from the lateral vaginal walls (3,4). Leiomyoma of the vagina occurs most frequently between the ages of 35 and 50. Though the tumor begin at a much earlier age, slow growth characteristic of the tumor and the good distensibility of the vagina results in production of symptoms and awareness of the mass only around the age of 40 (1,4). There has been no correlation between the occurrence of leiomyoma in the vagina and any other sites (4) however, Meniru et al. reported a case of vaginal leiomyoma co-existing with broad ligament and multiple uterine leiomyomas (5). The majority of these tumors are localized, non tender and mobile masses. They are usually solitary and small in size, approximately 3-4 cm in diameter, but occasionally may be multiple or enormous in size (3,4). In our case the leiomyoma had arisen from the anterior vaginal wall, was 6 cm in diameter and there was not associated uterine leiomyomas like the others (1,3,4).

Although these rare tumors are obvious on vaginal examination, the clinical presentation varies. Many are asymptomatic vaginal masses. Large lesions may cause pain, dyspareunia constipation leucorrhea and urinary tract symptoms including frequency, urgency, dysuria, urinary retention and incontinence. These lesions were even called as 'female prostate' by Njeh et al., who reported a case of vaginal leiomyoma with an intravesical defect revealed in cystogram which resembles hypertrophied prostate (6). Shirvani et al. reported an another unusual case of vaginal leiomyoma mimicking a urethral diverticulum (7). Vaginal leiomyomas which are situated **at the upper part of the lateral wall** can lift the ureters upwards (3). A preoperative intravenous pyelogram can delineate the course of the ureter in such cases and provide information relating to the displacement. In the present case, the leiomyoma had arisen from the anterior wall and did not displace the ureters but caused urinary tract symptoms such as difficulty in micturation.

Pelvic examination can demonstrate a non tender vaginal mass of cystic semi cystic or solid consistency due to degenerative changes. In a small number of cases ulceration of the overlying epithelium has been noted with subsequent necrosis, purulent discharge and bleeding (3,4). The variable consistency can lead to preoperative misdiagnosis. The differential diagnosis includes cystocele, urethrocele, urethral diverticulum, Skene duct abscess, Gartner duct cyst, Bartholin gland cyst, prolapsed uterus and vaginal malignancies (1,4,8). Ultrasonography is extremely useful to depict the morphology and anatomic location and to reveal the heterogeneous echo texture consistent with myomata. A suburethral diverticulum can be excluded with urethroscopy and voiding cystourethrography. Needle biopsy is an option to exclude malignancy. In our case we used ultrasonography to evaluate our diagnosis and we showed the echogenic mass in the vaginal wall which demonstrates vaginal leiomyoma. We also used intravenous pyelogram to evaluate the urinary tract.

Whenever a vaginal leiomyoma is detected, though small in size, it should be removed to prevent it from growing further and subsequent sarcomatous changes in the future (3,4,8). The treatment of vaginal leiomyoma is surgical enucleation, which in the majority of cases has been performed using the vaginal approach (1,8). An urethral catheter may aid in dissection and help to prevent the urethral injury (8). If the tumor is large and located high in the anterior wall of the vagina, the abdominal route may be preferred (1). Vaginal leiomyomas usually do not involve the vaginal mucosa or urethral epithelium and the tumor can be separated easily from surrounding tissues. Every effort should be made to remove the tumor unblock and avoid morcellation to prevent the recurrence of the tumor, which is, in any case, is very rare (3). In the event that enucleation of a large anterior vaginal wall mass results in skeletonization of the urethra and the bladder support, a colporrhaphy or pubourethral ligament pilication is required (1,8). In a series of 11 cases with vaginal leiomyoma, it was reported a 9.1% incidence of sarcoma (3,4). Careful histological evaluation is essential to rule out the leiomyosarcoma, which whether arise *de novo* or as a malignant change in benign tumors is unknown, but likely requires more aggressive resection and possibly adjuvant therapy.

In conclusion vaginal leiomyomas are rare entities which can be misdiagnosed with many other conditions. Therefore, while distinguishing a vaginal mass, vaginal leiomyoma should be beared in mind. Surgical enucleation is the treatment of choice, but resection of this mass should be followed by careful histological examination to exclude malignancy.

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