International Journal of Science and Research (IJSR)
ISSN: 2319-7064
ResearchGate Impact Factor (2018): 0.28 | SJIF (2019): 7.583

A Rare Case of Primary Vaginal Leiomyoma

Kiran Abha[1], Bhadana Priyanka[2], Ganju Veena Malla[3], Saina Preeti[4]

[1]Senior resident, Dept of Obstetrics and Gynecology, Atal Bihari Vajpayee Institute of Medical Sciences & Dr Ram Manohar Lohia Hospital, New Delhi

[2]Assistant Professor, Dept of Obstetrics and Gynecology, Atal Bihari Vajpayee Institute of Medical Sciences & Dr Ram Manohar Lohia Hospital, New Delhi

[3]Ex-HOD, Dept of Obstetrics and Gynecology, Atal Bihari Vajpayee Institute of Medical Sciences & Dr Ram Manohar Lohia Hospital, New Delhi

[4]Senior Medical Officer, Dept of Obstetrics and Gynecology, Atal Bihari Vajpayee Institute of Medical Sciences & Dr Ram Manohar Lohia Hospital, New Delhi

Abstract: ***Leiomyomas are common benign tumors in the uterus. Vaginal leiomyomas remain an uncommon entity with only 300 reported cases since the first detected case back in 1733 by Denys de Leyden. Here we present a case of vaginal leiomyoma, which was diagnosed, treated, and confirmed by histopathology.***

Keywords: leiomyoma;vaginal leiomyoma;benign tumors of vagina

1. Introduction

A vaginal leiomyoma is a benign smooth muscle tumor. These tumors are extremely rare (1) and the etiology is unknown. Patient may present with symptoms of compression on either bladder or vagina. (1) The imaging techniques represent an enhancing soft tissue mass lesion.

27 years nulliparous female with married life of 3 years presented in female OPD with complains of dyspareunia, dysuria and pain abdomen for past 3 months. Her menstrual cycle was regular with average flow in each cycle. She was undergoing her infertility workup for past one year. She was diagnosed subclinical hypothyroidism for which she was given thyroid support. She has history of galactorrhea for which she was given cabergoline. Husband semen analysis was normal.

On general examination: Average built female without pallor, icterus, cyanosis or pedal edema. There was no thyroidomegaly or lymphadenopathy. Bilateral breast was normal on clinical examination.

On systemic examination: Patient was well oriented to time person and place. Chest and cardiovascular examinations were normal.

On per abdomen: Soft and nontender abdomen without any organomegaly or palpable lump.

On Per vaginal examination: revealed a mass 3*3 cm firm non mobile non tender in nature in anterior vaginal wall. Uterus was normal in size. There was no adnexal mass.

In hysterosalpingography (HSG) (Fig 1): there was no spillage in peritoneal cavity in both sides. Uterine cavity was normal. Patient was advised to undergo a diagnostic laproscopy.

3 months back she started feeling difficulty during cohabitation. She underwent a transvaginal ultrasound scan in which she was diagnosed with mass having mixed echogenicity and moderate vascularity in vagina (4.8cm*3.5cm*3.7cm). (Fig 2). Ultrasound for renal system was normal.

MRI pelvis (Fig 3, Fig 4) showed well defined, heterogenous, lobulated lesion at upper anterior vaginal wall region (5.2cm*3.8cm*3.2cm). The lesion is hypointense at T1 and heterogeneously iso to mild hyperintense at T2 and Fs sequences and had mild to moderate post contrast enhancement. There was no feature of extension or bladder involvement.

Management:
Enucleation of vaginal mass was planned under spinal anaesthesia.Patient laid down in lithotomy position after giving spinal anaesthesia. After proper painting and draping and urethral catheterization an incision given on most prominent part of vaginal mass. Dissection done till mass is reached and enucleation done (Fig 5, Fig 6). Hemostasis done and vaginal wall closed in layers. Specimen was (Fig .7) sent for histopathological examination. Histopathological examination revealed leiomyoma of vagina.

2. Discussion

Vagina is a tubomuscular structure. Anteriorly it is related to base of bladder and urethra. Posteriorly it is related to peritoneum, rectum and anal canal. Laterally it is related to ureter in in upper third. The blood supply to vagina is from internal iliac artery, uterine artery, vaginal artery, middle rectal and internal pudendal arteries. The veins from vagina drain into uterine, pudendal and rectal veins which finally drain into internal iliac veins. Lymphatics of upper anterior vagina and vaginal vault drains into external iliac lymph nodes, middle part drains into internal iliac lymph nodes, posterior vagina drains into inferior gluteal, sacral and anorectal lymph nodes. Distal vagina drains into femoral lymph nodes. Vaginal wall has three layers-mucosa,

muscularis and adventia. Mucosa is lined by non-keratinized squamous epithelium. Muscularis has smooth muscle bundles inner circular and outer longitudinal layers which continuous with muscle layer of uterus. The advential layer contains dense connective tissue, containing lymphatics, venous plexus and nerve bundles.

Growth in vagina can be vaginal cyst including squamous inclusion cyst, mesonephric cyst, mullerian cyst and Bartholin gland cyst. They are asymptomatic mostly and are incidental findings. (2) Other benign lesion can be fibroepithelial polyps, tubulosqamous polyp, endocervicosis, endometriosis and adenosis. Most common symptoms of vaginal polyp are bleeding and growth. (3). Benign epithelial tumors include squamous papilloma, fibroepithelial polyp, mullerian papilloma, vaginal adenoma Brenner tumor. Malignant lesions are squamous cell carcinoma, adenocarcinoma, adenosqamous carcinoma, adenoid cystic carcinoma, adenoid basal carcinoma, neuroendocrine carcinoma and undifferentiated carcinoma. Mixed epithelial and mesenchymal tumors are mixed tumor, vaginal adenosarcoma, carcinosarcoma, mixed tumor synovial sarcoma. Other rare tumors can arise from melanocytes, germ cell tumor, neuroendocrine tumor, adenomatoid tumor and lymphoma and leukemia.

The majority of leiomyomas arise from the body of the uterus and sometimes from cervix. The extrauterine sites of this tumor are round ligament, uterosacral ligament, ovary, inguinal canal and very rarely vagina and vulva. Since the first report by Denys de Leyden in 1733, approximately 300 cases of vaginal leiomyoma have been reported worldwide. In the vagina, leiomyoma usually present as a solid single nodule mostly from the midline anterior wall, and less commonly, arise from the posterior and lateral walls.(4) These are most common in women aged 30-50years.(5) Although these tumors are often asymptomatic, larger tumors may be associated with pain, dystocia, dyspareunia or obstructive urinary symptoms.

Pathologically they are firm, well circumscribed homogenous and resemble their uterine counterpart. Though the lesion is usually regarded as benign, sarcomatous changes have been reported.

These may be either intramural or pedunculated. Ultrasonography usually diagnoses it to be a cervical fibroid. On MRI these are typically round, well-circumscribed, whorl-appearing masses of intermediate T1W and T2W signal intensity, which homogenously enhances after gadolinium administration. Like uterine leiomyoma, however, vaginal leiomyomas can show various signal intensities on MR images, depending on histopathologic changes that have occurred. leiomyomas should be differentiated from leiomyosarcomas. The latter characteristically appear irregular and locally infiltrative, heterogenous with areas of necrosis or hemorrhage, and demonstrate high signal intensity on T2W sequences. (6,7)

Excision and enucleation is the treatment of choice as was done in our patient. (1)

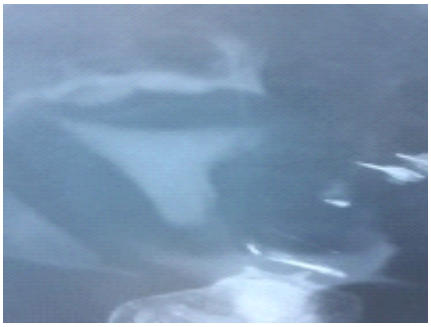

Figure 1: Hysterosalpingography showing normal uterine cavity without spill from bilateral fallopian tube

Figure 2: Ultrasound showing heterogenous mass in vagina with vascularity

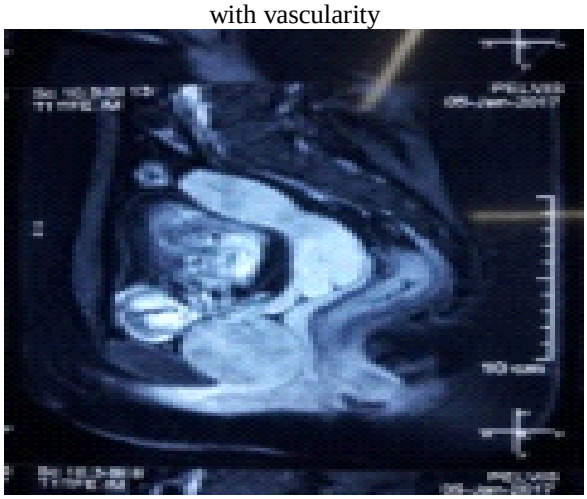

Figure 3: T1 MRI showing growth in vagina

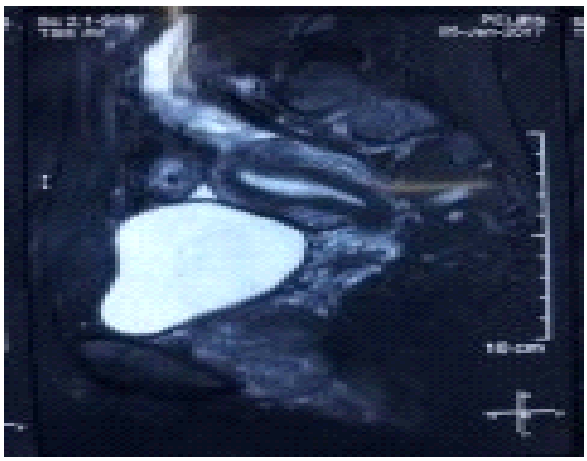

Figure 4: T2 MRI showing heterogenously iso to mild hyperintensities in growth

Figure 5: Enucleation of vaginal mass being done

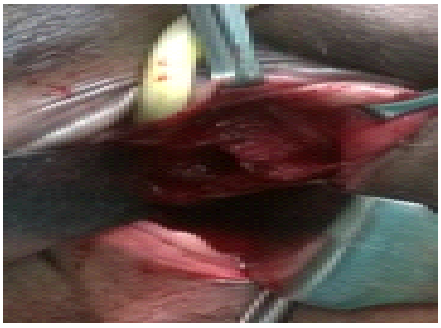

Figure 6: Empty space in vaginal wall after enucleation which was repaired

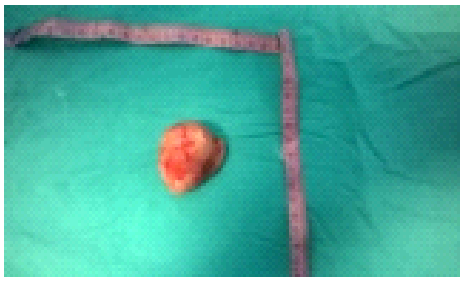

Figure 7: Gross specimen of enucleated vaginal mass

References

[1] Vaginal fibromyomata: two cases with preoperative assessment, resection, and reconstruction. Young SB[1], Rose PG, Reuter KL,Obstet Gynecol. 1991 Nov;78(5 Pt 2):972-4
[2] Vaginal cysts: a common pathologic entity revisited. Kondi-Pafiti A[1], Grapsa D, Papakonstantinou K, Kairi-Vassilatou E, Xasiakos D.,Clin Exp Obstet Gynecol. 2008;35(1):41-4
[3] Polyps of the vagina: a clinicopathologic study of 18 cases. Chirayil SJ, Tobon H.,Cancer. 1981 Jun 15;47(12):2904-7.
[4] Shimada K, Ohashi I, Shibuya H, Tanabe F, Akashi T. MR imaging of an atypical vaginal leiomyoma. AmRoentg. 2002; 178:752–4
[5] Bennett HG, Jr, Erlich MM. Myoma of the vagina. Am J Obstet Gynecol. 1941; 42:314–20.
[6] Bae J H, Choi SK, Kim JW. Vaginal leiomyoma: A case report and review of the literature. J Women's Med. 2008; 1:92–4
[7] Shadbolt CL, Coakley FV, Qayyum A, Donat SM. MRI of vaginal leiomyomas. J Comput Assist Tomogr. 2001; 25:355–7