Case Report

DOI: 10.5582/irdr.2015.01037

A rare case of giant vaginal fibromyoma

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Summary **Vaginal fibroids rarely exist as a primary vaginal tumor. Approximately 300 cases have been reported in the literature. Here we are reporting a rare case of giant vaginal fibromyoma. It was diagnosed as cervical fibroid polyp preoperatively but found to be vaginal fibromyoma peroperatively.**

Keywords: Vaginal fibromyoma, hysterectomy

1. Introduction

Leiomyomas are the most common benign tumors of the uterus. However vaginal myomas are very rare and may be confused with a variety of vaginal tumors. Approximately 300 cases have been reported in the literature (*1*). Vaginal fibromyomas are usually asymptomatic but variable symptoms can be present depending on site including lower abdominal pain, low back pain, vaginal bleeding, dyspareunia, urinary symptoms like frequency, dysuria or other features of urinary obstruction (*2*). Here we are reporting a case of giant vaginal fibromyoma which was diagnosed preoperatively as cervical leiomyoma.

2. Case report

A 30-year-old nulliparous female admitted to our hospital on 19th March 2015 with complaints of oligomenorrhea for the last year and purulent discharge per vaginum for the past six months. Her cycles were of 55-60 days with a two day duration with reduced flow. On examination a lump was present in infraumblical region.Size of lump was almost equal to 18 weeks of gestational uterus.

Slight foul smelling discharge was detected on local examination. Speculum examination showed free flowing excessive purulent discharge. A huge mass was found high up in the vagina which almost occupied the whole upper vagina. On bimanual examination a huge mass was felt high up in vagina which was firm in consistency. Uterus could not be felt separately from the mass. Ultrasonography showed bulky cervix. A heterogeneously hypoechoic space occupying lesion was found in endocervical canal with minimal increased vascularity suggestive of cervical fibroid polyp (7.2 × 4.4 cm).

Diagnosis of cervical fibroid polyp was made. Patient was prepared for polypectomy by vaginal route under antibiotic coverage. Her operation was performed on 4th April 2015. Procedure could not be done vaginally as pedicle of fibroid polyp could not be accessed vaginally. On laparotomy, uterus and adnexa were visualized and found to be normal. Vagina was found to be ballooned up. Uterovesical fold of peritoneum was incised, bladder was pushed down and anterior vaginal wall at cervicovaginal junction was opened. A sessile fibroid polyp was present in the vagina. A fibroid polyp base of around 4-5 cm was attached to anterior vaginal wall. Due to excessive bleeding peroperatively a decision of hysterectomy was taken with consent of the attendant. After achieving hemostasis, base of vaginal fibromyoma was serially clamped and was removed subsequently.

Gross pathological examination reported a single globular soft tissue piece measuring 12.5 × 10.8 cm with outer surface appearing grey white and one end showing grey white growth measuring 5.5 × 5.5 cm (Figure 1). The cut surface showed a whorled appearance. Microscopic examination reported fascicles and interlacing bundles of smooth muscle cells showing elongated to oval nuclei with eosinophilic cytoplasm, the section also showed hypercellular and myxoid areas. Intervening stroma showed mild to moderate

Released online in J-STAGE as advance publication November 20, 2015.

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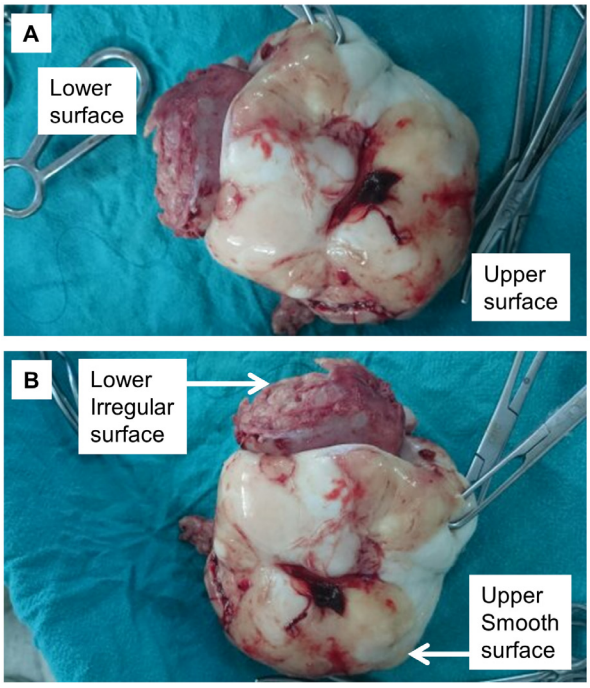

Figure 1. Gross appearance of vaginal fibromyoma. (A), showing upper surface which was attached to vaginal wall; **(B)**, lower surface of vaginal fibromyoma with irregular margins.

inflammatory infiltrates comprised of lymphocytes, and polymorphs with few plasma cells (Figure 2). Immunohistochemical analysis for CD34, CD117 and DOG1 was found to be negative.

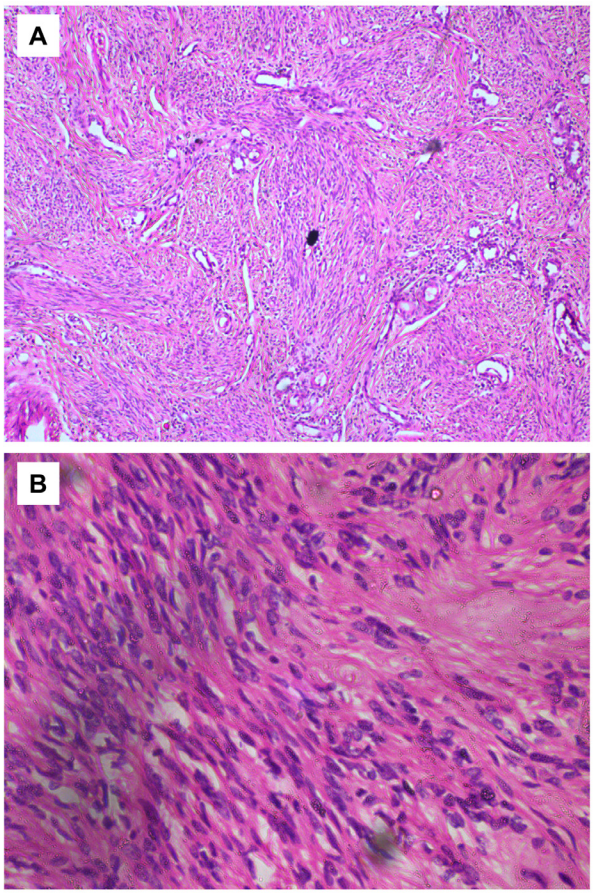

Figure 2. Microscopic appearance of vaginal fibromyoma showing fascicles and interlacing bundles of smooth muscle cells. (A), fibroid 10 × 0001; **(B)**, fibroid 40 × 0002 hyaline.

3. Discussion

Leiomyomas are mainly tumors of myometrium although they can occur in round ligament, broad ligament, urinary bladder, renal pelvis, spermatic cord, glans penis, urethra and even in peritoneum (*3*). Most common site of vaginal leiomyomas is anterior vaginal wall (*4*) followed by lateral wall (*5*). They may also arise from posterior wall (*6*). It can also cause obstruction to birth passage if present along with pregnancy (*7*).

Twenty-six patients of vaginal leiomyoma were analyzed by Zhao Y *et a*l. retrospectively. S-P immunohistochemistry was used to detect smooth muscle actin (SMA), S-100 protein (calcium binding protein), CD34 (cluster of differentiation 34), ER (Estrogen receptor) and EGFR (Epidermal growth factor receptor). Imunohistochemical staining demonstrated them to be strongly positive for SMA, and negative for S-100 protein and CD 34 in all cases, positive expression of ER and EGFR was 38.5 (10/26) and 34.6 (9/26) respectively. There was significant correlation between expression of ER and EGFR. They concluded that estrogen hormone and EGF (epidermal growth factor) might play an important role in development and growth of leiomyoma of vagina (*8*).

Preoperative diagnosis can be made by ultrasonography but is better delineated with magnetic resonance imaging. In MRI (magnetic resonance imaging) they appear as homogenous lesions with signal similar to myometrium (*9*). In this case ultrasonography showed cervical leiomyoma.

MRI usually clinches the diagnosis of vaginal fibromyoma. In MRI they appear as well demarcated solid masses of low signal intensity in T1 and T2 weighted images with homogenous contrast enhancement while leiomyosarcoma and other vaginal malignancies show characteristic high T2 signal intensity with irregular and heterogenous areas of necrosis or hemorrhage (*9,10)* MRI could not be done, because the patient could not afford the investigation.

Surgical removal is the treatment of choice. Vaginal approach is usually feasible but at times abdominoperineal approach may be required to complete the excision in large tumors (*11*). If diagnosis could be made preoperatively, gonadotrophin releasing hormone (GnRH) analogue can be tried to reduce their size (*3,12*) or preoperative embolization can be performed before excision to reduce intraoperative blood loss (*13*).

Sim CH *et al.* (*14*) reported a case of necrotising ruptured vaginal leiomyoma which was preoperatively diagnosed as vaginal malignancy. MRI revealed a

mass of 7 × 5 cm at distal end on left anterior aspect of vagina with its low signal intensity of T1 weighted image, high signal intensity on T2 weighted image. Antibiotics were given for 10 days, and subsequently the patient underwent excision of mass through vaginal approach.

Liu (*15*) analyzed 11 vaginal leiomyomas and their average time to become symptomatic was 8.4 years with an incidence of 9.1% for malignant change.

4. Conclusion

We should learn from this case that we should always make a sure diagnosis by MRI whenever there is such a huge mass in the vagina. GnRH analogues can also be given to reduce the size of fibromyoma preoperatively. In this case we could not give GnRH analogues as the mass was so infected that we could not postpone the procedure.

Acknowledgements

The authors want to thank the patient for her cooperation.

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(Received September 15, 2015; Revised October 28, 2015; Accepted November 9, 2015)