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Case Report

Lateral cervical fibroid: a case report with review of literature

Basanta M. Hota*, Lokam Geetha, Chintirla G. Prashanthi, Kurapati Maneesha

Department of Obstetrics and Gynecology, Mamata Medical College, Khammam, Telangana, India

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*Correspondence:

Dr. Basanta M. Hota,

E-mail: drmanjarahota@gmail.com

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ABSTRACT

Cervical fibroid constitutes 1-2% of total fibroids and is usually solitary as the cervix is deficient in myometrium. It is classified into anterior, posterior, lateral, and central depending on its location. Being estrogen dependent, it is common in the reproductive age group. Lateral cervical fibroids constitute 10.26% of total cervical fibroids as reported by one retrospective observational cohort study. Symptoms of lateral cervical fibroid are vague and depend on its site and size. Chronic pelvic pain, dyspareunia, abnormal vaginal bleeding, and pressure effect on bowel in a left-sided lesion are the usual symptoms in a lateral cervical fibroid. As it grows into the broad ligament, compression of the ipsilateral ureter with renal affection is early. The patient's obstetric outcome is likely to be affected. Pressure on pelvic vessels may cause hemorrhoids and edema in the legs. Growth and extension of this fibroid into the broad ligament distorts pelvic anatomy. Its definitive management is surgery, which is very challenging to the surgeon, with increased risk of ureteric damage and excessive hemorrhage. We report a case of lateral cervical fibroid of 08.5×05.0 cm with constipation, and menorrhagia; foul-smelling vaginal discharge and post-coital bleeding in a 38-year-old parous lady. Total abdominal hysterectomy with bilateral salpingectomy and right oophorectomy was done under regional anesthesia. Histopathological examination confirmed the diagnosis of right lateral cervical leiomyomas, sub-mucous fibroid polyp in the uterus, and excluded malignancy. The surgery was uneventful, and the patient remained asymptomatic and healthy during postoperative follow-up. Although the incidence is low, lateral cervical fibroids are more likely to distort the pelvic anatomy around important viscera, affecting other systems early, and surgery is challenging.

Keywords: Cervical fibroid, Estrogen, Chronic pelvic pain, Ureter, Broad ligament

INTRODUCTION

Cervical fibroids are benign leiomyomas arising from the cervix. It constitutes only 1-2% of total leiomyomas.¹ They are rare and usually solitary, as smooth muscles constitute only 10% of the cervix.² It is classified as type 8 by the Indian Federation of Obstetrics and Gynecology (FIGO) classification of myomas.³ Being estrogen dependent, it is found in women of reproductive age.⁴ Depending on location, cervical fibroids can be vaginal or supravaginal and anterior, posterior, lateral, or central.⁵ Symptoms of lateral cervical fibroid (LCF) vary with its size. Abnormal vaginal bleeding; discomfort to chronic pelvic pain; dyspareunia; pressure effect on bowel in left-sided lesion; and pressure and upward pushing of bladder causing urinary retention and infection; and compression of the

ipsilateral ureter with renal effect are the usual presentations. The patient's obstetric outcome is likely to be affected.⁶ Pressure on pelvic vessels may cause hemorrhoids and edema in the leg.⁷ Ipsilateral renal affection is more likely due to the proximity of LCF to the ureter. Surgery is challenging as there is a risk of ureteric injury while clamping the uterine artery pedicle in a hysterectomy. A preoperative urology consultation is beneficial in preventing such complications. It distorts the pelvic anatomy by extending into the broad ligament. A retrospective cohort observational study found an incidence of 10.26% for left and right LCF and 5.13% for lateral and anterior cervical fibroids.⁸

Diagnosis of the pathology is clinical with bimanual examination, complemented by ultrasonography (USG); and magnetic resonance imaging (MRI) may be required.

Surgery is the primary treatment, and the type of surgery is determined by the patient's age, reproductive needs, personal preference, and the surgeon's experience. Even in cases of hysterectomy, prior myomectomy is required before clamping the uterine artery pedicle. We present a case of lateral cervical fibroid, considering its rarity in incidence and nonspecific presentation as well as the challenging surgical management.

CASE REPORT

A 38-year-old lady reported to the outpatient department of the institution with complaints of constipation for one year; excessive bleeding per vagina during menstruation for six months; foul-smelling vaginal discharge without itching for six months; and one episode of post-coital bleeding three months back. The patient developed chronic constipation for one year, for which she got medications from a general practitioner, but without complete relief. Her present menstrual cycle was 15/30 days, with excessive bleeding and passage of clots of 3×3 cm size associated with dysmenorrhea.

There was no history of abdominal pain, nausea, vomiting, loose motion, urinary problems, or dyspareunia. She was transfused with one unit of whole blood followed by intravenous iron infusion two months ago. Her past menstrual history was 3-4/30 days, regular, normal flow, and no pain. She was a para two with two vaginal deliveries, and had undergone postpartum tubal sterilization 14 years back. The patient had no relevant past medical, surgical, family, or personal history related to her current condition. Upon arrival at the hospital, she was physically and mentally sound. There was no pallor, icterus, lymphadenopathy, or edema. Her pulse was 90/min; BP was 110/70 mmHg; respiration was 16/min; she was afebrile, and her body mass index was 24.2 kg/m². No clinically detectable abnormalities were found in the cardiovascular, respiratory, and central nervous systems. Abdominal examination was within normal limits and revealed a healthy tubectomy scar. On internal examination, the cervix was bulky with foul-smelling mucoid discharge and a nabothian follicle. A vaginal swab for culture and sensitivity, and a Papanicolaou smear were collected. Bimanual examination (BME) revealed a uterus of 10-12 weeks' pregnancy size, firm, mobile, and nontender. The right and adjacent part of the anterior fornix was full with an irregular, firm mass; attached to the supravaginal cervix; and non-tender. The rest of fornices were free, and the external os was patulous. Per-rectal examination confirmed the BME findings. She was investigated with the provisional diagnosis of cervical fibroid, keeping adnexal mass as a differential diagnosis. Her hemoglobin was 10.2 gm%. Total and differential leukocyte count, blood sugar, renal function, liver function, thyroid profile, and coagulation profile were within normal limits. Viral markers for human Immunodeficiency virus and hepatitis-B virus were nonreactive, and her blood group was O positive. Papanicolaou smear reported no evidence of intraepithelial lesion or

malignancy, and treatment was started with a sensitive antibiotic for vaginal organisms in culture. Both transabdominal and transvaginal USG revealed an anteverted, bulky uterus with endometrial thickness of 9 mm; a bulky cervix with multi-lobular, heterogeneous hypoechoic mass; the largest lobe being 5.6×3.8 cm; and increased vascularity on the right side. Kidney, ureter, and bladder were normal in USG without evidence of pressure effect. With the diagnosis of cervical fibroid, the patient was planned for total abdominal hysterectomy with bilateral salpingectomy under regional anesthesia with informed consent and fitness. She was counseled for ovarian surgery if needed and about the expected complications of the whole procedure. On laparotomy, the uterus was found to be 10 weeks' pregnancy size; the right ovary was cystic and unhealthy; and a soft to firm polypoidal cervical fibroid of 8.5×5.0 cm in size was found arising from the right lateral wall of the supravaginal cervix. The uterovaginal fold of peritoneum was opened, and the bladder was well pushed down. The same incision was extended upward and medially over the cervical myoma on right side, exposing the polypoidal mass arising longitudinally along the lateral wall of the cervix with comparatively thin attachment, as shown in Figures 1 and 2.



Figure 1: Uterus with right-sided cervical fibroid, anterior view.

After upper pedicles on both sides and uterine artery pedicle of the uterus on left side were clamped cut and ligated; the right uterine artery; and utero-sacral and Mackenrodt's pedicles were clamped by manipulating the myoma anteriorly and medially, excluding ureter and bladder from the field. Total abdominal hysterectomy with left salpingectomy and right salpingo-oophorectomy was completed as the right ovary was cystic and unhealthy. Blood loss was within normal limits; the intra and postoperative period was uneventful; and the patient was discharged on the eighth postoperative day. She was healthy and doing well on postoperative follow-up after one month. Histopathology reported chronic non-specific cervicitis with surface keratinization; cervical leiomyomas with secondary degeneration and benign adeno-leiomyomatous polyp endometrium, as shown in Figure 3; multiple simple cysts in the right ovary; and normal fallopian tubes. There was no evidence of malignancy.



Figure 2: Uterus with right-sided cervical fibroid, posterior view.



Figure 3: Sagittal section of uterus showing sub-mucous fibroid polyp in the uterus and right-sided cervical fibroid.

DISCUSSION

Lateral cervical fibroid, though a rare category of all leiomyomas, is prone to produce symptoms at a comparatively small size, and its surgery is highly challenging. In addition to hyper estrogenic conditions, vitamin D deficiency and a family history of fibroids are important etiological factors in the development of all types of fibroids.⁹ Genetic causation is found to be translocation of chromosomes 12 and 14, deletion of 7q, and trisomy 12.¹⁰ Lateral cervical fibroid extending into the broad ligament is not likely to cause AUB.¹⁰ But as the etiology of the hyperestrogenic state affects both the myometrium and the endometrium, bleeding per vagina is common. In our case, the patient had a submucous fibroid polyp in the uterus (Figure 3), causing AUB. USG is the first line imaging to confirm the diagnosis, which was useful in our patient in complementing the clinical diagnosis of cervical fibroid, but the submucous fibroid was missed. Magnetic resonance imaging may be required for a better delineation of the LCF and its relation to adjacent viscera in certain cases. We did not need it as the fibroid was not very large, nor did it have a pressure effect on the ureter or bladder. Surgery is the definitive treatment for the pathology.^{11,12} Preoperative treatment with gonadotropin-releasing hormone analogs for a short period of about 3 months in cases of large fibroids may help to

reduce the size and vascularity, lowering the risk of ureteric damage and blood loss during the surgery.¹³ Vascular embolization may be taken as an alternative to surgery for the treatment of myoma and to reduce intraoperative blood loss. Ureteric damage is the most serious complication of surgery in lateral cervical fibroid.¹³ Preoperative ipsilateral ureteric stenting through cystoscopy or intraoperative tracing of the ureter is another method to prevent its injury.^{14,15} Histopathology of the specimen is of supreme importance for confirmation of diagnosis and exclusion of malignancy.

CONCLUSION

Lateral cervical fibroid produces pressure on the ipsilateral ureter even at comparatively smaller sizes for its location, extension into the broad ligament, and proximity to this viscus. Though rare, it may compress pelvic vessels, leading to hemorrhoids and unilateral pedal edema. Surgery is also riskier as the approach to ligation of the ipsilateral uterine artery pedicle is difficult; ureteric damage is likely, and more tissue dissection leads to increased intraoperative hemorrhage. Preoperative hormone treatment in large fibroids, MRI, ureteric stenting or intraoperative tracing, myomectomy before hysterectomy, and an experienced surgeon are needed to reduce such complications.

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