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Case Series

Fibroids with atypical presentation and related surgical challenges: case series

Rosy Khanam*, Bhaswati Hazarika

Department of Obstetrics and Gynecology, ESIC Model Hospital, Beltola, Guwahati, Assam, India

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***Correspondence:**
Dr. Rosy Khanam,
E-mail: khanamrosy7@gmail.com

ABSTRACT

Uterine fibroids refer to benign growth arising from uterus and are considered to be the most common gynaecological tumour mostly seen in women of reproductive age group. Myomas or uterine fibroids in majority may be asymptomatic and are diagnosed incidentally on imaging or on clinical examination. Significant morbidity can be caused by uterine fibroids by causing uterine bleeding, anemia, bulk symptoms and fertility issues. Quality of life can be severely affected in women with symptomatic fibroids. Uterine fibroids can be diagnosed early by ultrasound and magnetic resonance imaging (MRI). However, certain cases may present with unusual ultrasound and MRI reports causing diagnostic dilemma. Currently it is the most common indication for hysterectomy worldwide. We report 6 cases of uterine fibroids with atypical presentation with respect to location and features that caused diagnostic challenges and difficult surgeries that were performed at our institution.

Keywords: Leiomyoma, Atypical presentation, Hysterectomy

INTRODUCTION

Uterine fibroids refer to benign smooth muscle cell tumours arising from uterus. Leiomyoma, myoma are terms that are used interchangeably with uterine fibroids. Among women of reproductive age group, uterine fibroids are the most common gynaecological tumours affecting more than 70% of women worldwide.[1] Because they contain 50% more extracellular matrix proteins than their surrounding myometrium, these are considered to be fibrotic disorders. Remarkable features of uterine fibroids are excessive extracellular matrix accumulation and distorted remodelling of uterine myometrial tissue.[2] Older age, premenopausal state, family history of uterine fibroids, nulliparity are amongst the many risk factors causing uterine fibroids.[3]

International Federation of Gynecology and Obstetrics (FIGO) classifies uterine fibroids into three subgroups: Submucosal, Others and Hybrid leiomyomas. These are classified into submucosal pedunculated intracavitary, intramural and subserosal leiomyomas further subdivided into types 0-8, depending on the position and percentage of contact with the myometrium.[4] Even though benign, uterine fibroids are associated with significant morbidity. Fibroids can cause a wide spectrum of symptoms including menorrhagia, pelvic pain to recurrent miscarriage, preterm labour and infertility.[5,6]

Medical management include combined oral contraceptive pills (OCPs), gonadotropin-releasing hormone (GnRH) agonists, SPRMs, GnRH antagonists, levonorgestrel – releasing intrauterine system amongst many other. Uterine artery embolization, endometrial ablation are other treatment options. However, definitive management include myomectomy through laparoscopic, hysteroscopic or abdominal route. When family is completed and symptoms do not subside with medical and other conservative approaches, hysterectomy is to be considered as ideal.[7,8] Presented below are a few cases of fibroids with atypical location and features that resulted in difficult

diagnosis and surgery that were performed at ESIC Model Hospital, Beltola, Guwahati.

CASE SERIES

Case 1

41 years old P1L1 (previous caesarean section (CS)) female presented with pain abdomen since 3 months, which was radiating to back and thigh and was increasing progressively. The patient had regular cycles with heavy menstrual bleeding and severe pain during menses. On examination, suprapubic firm mass of size corresponding to 20-weeks gravid uterus was present. Bowel sounds were present on auscultation. Ultrasound whole abdomen revealed large hypoechoic lesion 11.9 × 6 cm^2 in left lateral myometrium suggestive of fibroid. Patient was posted for laparotomy. Intra-operatively, dense adhesions were encountered with large left sided broad ligament myoma of size approx. 14×10 cm^2. Bladder peritoneum was densely adhered to uterus and the fibroid in its entirety. Adhesiolysis and delineation of pelvic anatomy was done first. Total abdominal hysterectomy with B/L salpingo-oophorectomy was done under general anaesthesia. Blood loss was approximately 200 ml. Post-operative period was uneventful following which patient was discharged.

The incidence of broad ligament fibroids is relatively rare constituting <1% of all reported cases of uterine fibroids.[9] These myomas have tendency to acquire enormous sizes and cause pressure symptoms. Clinical diagnosis of the broad ligament fibroid is always challenging. Transvaginal ultrasound, computed tomography, and magnetic resonance imaging (MRI) are helpful.[9] Usually they are confused to be an ovarian mass. Surgical management of broad ligament fibroids is challenging as ureter delineation has to be done first as the operative procedure may be associated with complications like hemorrhage and ureteric injuries. One may consider clamping the uterine arteries before starting the dissection in order to minimise blood loss.

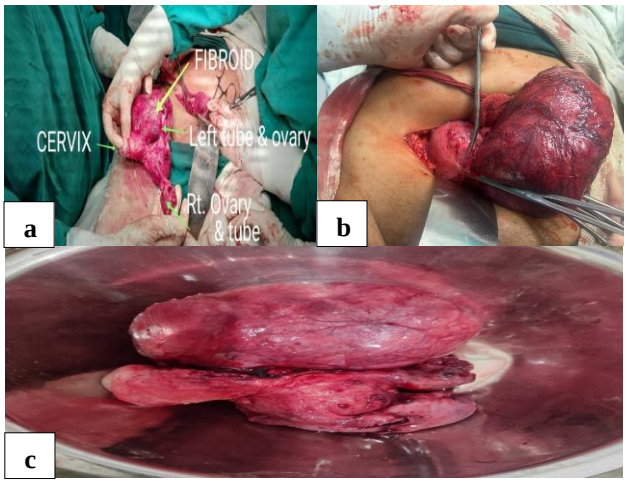

Figure 1 (a-c): Uterus with intact broad ligament fibroid.

Case 2

48 years old female P2L2 (twice post CS), presented to gynaecology. Outpatient department (OPD) with lump and pain abdomen on and off for 2 months. There was increased frequency of micturition with occasional incontinence. On examination, uterus was corresponding to 16 weeks size. Ultrasound revealed subserosal fibroid arising from fundus of uterus. Surgery was planned with 1 unit blood in hand.

Intraoperatively, dense adhesions were encountered with distorted anatomy. There was difficulty in locating the fibroid as it was embedded deep into the pelvis below the urinary bladder. Adhesiolysis was done from the fundal end. Uterine manipulation was done from the cervical end by the assistant which pushed the fibroid upwards and helped in locating its origin which was traced to the uterine isthmus. B/L ovaries appeared bulky and cystic. Total abdominal hysterectomy with bilateral salpingo-oopherectomy was done for the patient. Post operative period was uneventful.

The isthmus of uterus is different from rest of uterus and cervix in both anatomy and functional aspects. Tumours arising from uterine isthmus may grow tangentially or horizontally since these are subjected to a different set of forces. Incidence of isthmic uterine fibroids is relatively rare occurring in <5% cases.[10] Because of its atypical location one may encounter difficulty in operating such cases of uterine myomas.

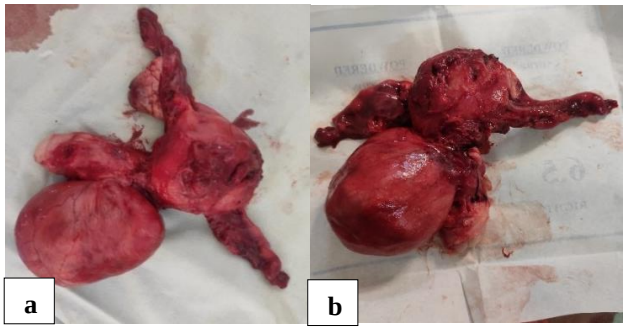

Figure 2 (a and b): Specimen of uterus with intact isthmic fibroid.

Case 3

P1L1, 50 years old female, presented with heavy and prolonged menstrual bleeding for last 5 months and anemia with Hb-7 g/dl. There was history of taking medical management with mifepristone for 4 months as advised by another practitioner with symptoms not being relieved. On per speculum examination there was large fibroid polyp. However, peduncle could not be appreciated. Ultrasound revealed multiple uterine fibroids largest of size 3×3×2 cm^3. 2 units packed red blood cell (RBC) was transfused pre operatively. Total abdominal hysterectomy was done for the patient with intact fibroid

being removed with minimal blood loss. Post-operative period was uneventful, repeat Hb% post operatively being 9.4 g/dl, following which patient was discharged.

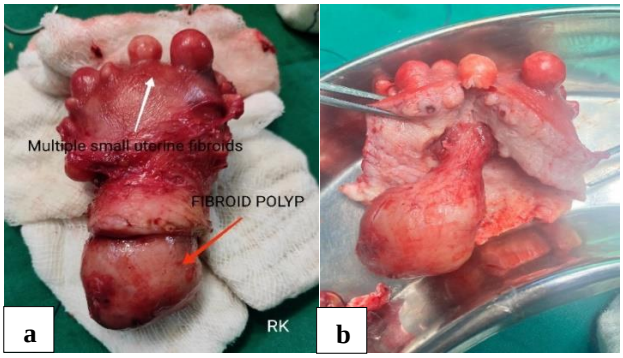

Figure 3 (a and b): Specimen of uterus with endometrial polyp with multiple fibroids.

The endometrial polyp had attachment at posterior fundus but had protruded into the vagina through cervical canal. Possible complications are torsion, uterine inversion and necrosis. Surgical challenge in these kinds of fibroids was ballooning out of uterine cavity because of polyp and hence uterine artery clamp and uterosacral clamps were difficult to apply. However stepwise clamp application and careful circumferential incision between cervix and vaginal vault facilitated removal of uterus with the intact pathology.

Case 4

47 years old female, para 2, living issue 2, presented with prolonged and heavy menstrual bleeding not getting relieved with medications advised for around 4 months by another practitioner. On bimanual examination, uterus was bulky, on speculum examination, cervix appeared healthy, no polyp was seen. Dilatation and curettage was performed, histopathological examination (HPE) report of which showed exogenous hormonal effect on endometrium. Ultrasonography report was suggestive of submucosal fibroid or endometrial polyp. Total abdominal Hysterectomy with Bilateral salpingo-oophorectomy was done with minimal blood loss. Cut section of specimen showed endometrial polyp protruding from fundus and extending upto internal os. Post-operative period was uneventful following which patient was discharged.

This was also a case of fibroid polyp but was difficult to diagnose and surgery was performed with indication mostly being failed medical management, examination could not reveal the same because of shorter length of the polyp as there was difficult visibility on per speculum examination.

Case 5

43 years old female, para 4, living issue 4, came to OPD with pain abdomen, heavy menstrual bleeding and abdominal distension for 6-7 months. On examination, there was 28-weeks size uterus. Ultrasonography was advised which revealed large submucosal uterine fibroid of size 10×8×8 cm^3. MRI was done which revealed large submucosal uterine fibroid with diameter approximately same as USG finding. Patient was a known case of schizophrenia under treatment. Opinion regarding surgical clearance was taken preoperatively from psychiatrist in house. 2 units PRBC was arranged and total abdominal hysterectomy was done. Intraoperatively before putting hysterectomy clamps, careful delineation of the surrounding structures was done with uterine artery ligation bilaterally which facilitated in reduced blood loss with safe surgery. Specimen was sent for HPE which revealed degenerated uterine fibroid with CuT in situ. Post-operative period was uneventful following which patient was discharged.

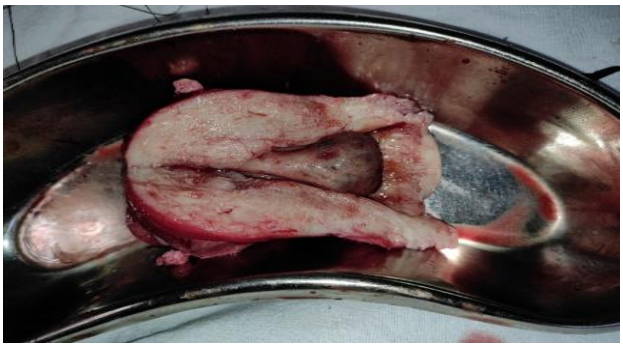

Figure 4: Specimen of uterus with endometrial polyp.

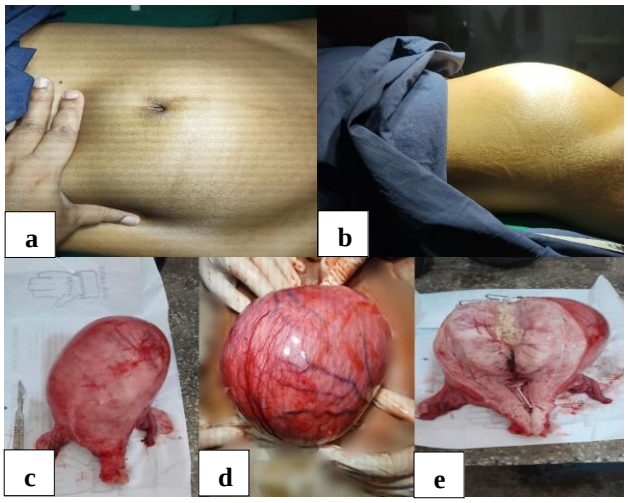

Figure 5 (a-e): Specimen of uterus with large degenerated fibroid with CuT in situ.

Case 6

41 year old female with para 1, living issue 1, came to the OPD with complain of occasional pain abdomen for 2-3 months. Her menstrual cycle was regular with no other complaint. On palpation, lump of 16 weeks size uterus was found. Ultrasonography was advised which revealed exophytic fibroid of size 7×6.5×5.5 cm^2 arising from

uterine fundus. MRI pelvis was advised which revealed subserosal fibroid of similar diameter as reported in USG. Surgery was planned with 1 unit PRBC in hand. Intraoperatively, dense adhesions were encountered with myoma completely covered with dense omental adhesions. Sequentially, adhesiolysis was done, adhered Omentum was ligated and separated. Omentectomy was done at few points to relieve the fibroid off the adhesions. Myomectomy was done with minimal blood loss. Post operative period was uneventful following which patient was discharged. Myoma in this case was getting its blood supply entirely from surrounding omentum.

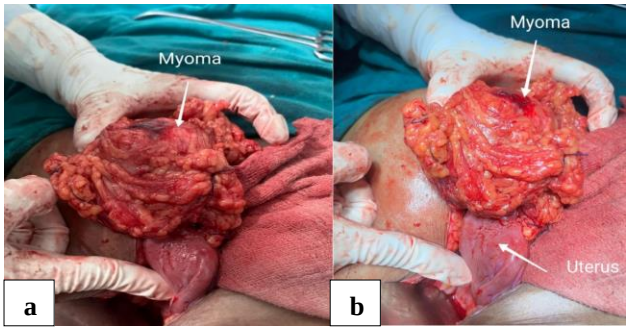

Figure 6 (a and b): Fibroid enwrapped in omentum.

DISCUSSION

Most common uterine tumours are fibroids with incidence as high as 70%.[1] Small fibroids are asymptomatic but larger ones may present with variety of symptoms, most common being menstrual. There may be other symptoms as lower abdominal pain, menorrhagia, polymenorrhea, dysmenorrhea, infertility.[5,6]

In case 1, the patient had pain in the back radiating to thigh. Intraoperatively it was evident that the symptoms were due to the large broad ligament fibroid putting pressure posteriorly. The incidence of broad ligament fibroids is less than one.[9] These myomas can further grow in size and cause pressure symptoms. Diagnosis of broad ligament fibroid is always challenging. Diagnosis may be confused with ovarian tumours, para- ovarian or para-tubal cysts, endometrioma, focal adenomyosis, mesenteric, retroperitoneal tumours amongst many other. Transvaginal ultrasound, CT, and MRI help in confirmed diagnosis.[9] Surgical management of broad ligament fibroids is also challenging as it may be associated with complications like haemorrhage, ureteric and bowel injuries.

Sometimes there may be compression symptoms like retention of urine, increased urinary frequency, incontinence of urine. As in case 2, there was lump and pain abdomen with increased frequency of micturition and occasional incontinence because of pressure effect of the isthmic uterine fibroid over the urinary bladder. There was difficulty in locating the fibroid as it was embedded deep into the pelvis below the urinary bladder.

There may be other atypical symptoms as a protruding vaginal mass with or without uterine inversion. As in cases 3 and 4, protruding polyps and their difficult diagnoses could have eventually led to uterine inversion, however, timely detection and intervention avoided any further complication.

In case 5, patient presented with abdominal distension and bloating for past 6-7 months. On primary examination, it was thought to be ovarian tumour causing distension and bloating. However, on detailed investigation, large submucosal fibroid was diagnosed. On palpation it was soft, cystic, because of fatty degeneration of the fibroid. Degeneration in fibroids can be hyaline, myxomatous, calcific, cystic, fatty and red.

While most common uterine fibroids are intramural in location, broad ligament fibroids, subserosal pedunculated, parasitic fibroids are considered to be amongst the rare entities.

As in case 6, ultrasound suggested exophytic uterine fibroid. However intraoperatively, a wandering or parasitic fibroid was seen densely adhered and covered in omentum. At first look, no fibroid was seen intraoperatively, however on carefully palpating the surrounding structures, fibroid could be felt completely enwrapped inside the omentum which was its source of blood supply. Adhesiolysis and partial omentectomy helped in retrieval of the myoma.

CONCLUSION

Uterine fibroids cause significant morbidity in affected women by causing varied symptoms and clinical manifestations. Difficult diagnosis further complicates and delays the definitive treatment. Atypical presentation in terms of clinical manifestation and location of fibroid causes difficult diagnosis and thereby challenging surgery. Explicitly knowing the structures in the pelvis and their anatomical relations with one another helps in delineating the anatomy of vital structures during surgery thereby causing reduced blood loss, reduced duration of surgery and thereby reduced morbidity.

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