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Varied presentation and management of cervical fibroids: A case series

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Abstract
Cervical fibroids are rare pelvic tumours with varying clinical presentations. Clinical and radiological evaluation of these fibroids help in deciding the treatment approach. There will be surgical difficulties due to their close proximity to pelvic organs like bladder, ureters and rectum. Hence proper intraoperative delineation is important. We present a series of four cases of cervical fibroid with different presentations and management. All these cases were evaluated and surgically managed without complications. The first and third case presented with huge mass per abdomen and pressure symptoms. Both underwent exploratory laparotomy where fibroid was enucleated followed by hysterectomy. The second and fourth case mimicked like a large polyp. In both the cases, cervical fibroid was excised vaginally and was followed by hysterectomy. Histopathological examination was suggestive of cervical leiomyoma. Therefore, cervical fibroid as a differential diagnosis should always be considered while evaluating any pelvic masses.

Keywords: cervical fibroid, pelvic mass, hysterectomy

Introduction
Uterine leiomyomas are benign tumours composed of smooth muscle and fibrous connective tissue. They are the most common tumours among the reproductive age group women with an incidence of 20-40% [1, 2, 3, 4].
Cervical leiomyomas are rare and make up only 2%. Depending on their site of origin cervical fibroids can be anterior, posterior, lateral and central [2]. A cervical fibroid can present with pressure symptoms like urinary retention, constipation, dyspareunia, post coital bleeding and infertility depending upon their location. They can have associated utero-vaginal prolapse due to traction effect. They may present as an abdominal mass mimicking ovarian mass or like a large polyp. Cervical fibroids may be confused with an incarcerated procidentia or chronic uterine inversion [2, 3, 5].
There may be surgical difficulties due to their close proximity to pelvic organs and hence risk of bladder and bowel injuries is very common along with increased intraoperative bleeding. Pre-treatment with GnRH analogues or Ulipristal acetate may be of benefit [4]. Surgeries like myomectomy and hysterectomy are the treatment of choice in almost all symptomatic cervical fibroids. We present a series of four cervical fibroid cases with different clinical presentations and successful management.

Case 1
A 41 year old para 2 live 2 peri-menopausal female came with complaints of mass per abdomen since 1 year, increased frequency of micturition with burning sensation since 1 month and pain in abdomen since 15 days. General and systemic examination were unremarkable. Per Abdomen examination revealed a non-tender mass of 26 weeks size pregnant uterus. On per speculum examination external os couldn't be appreciated. Patient was catheterized and bimanual examination was done which revealed a huge firm mass of size 15*10 cm, arising from the cervix from 2 o clock to 7 o clock position and occupying the whole pelvis. Uterus could not be appreciated. Ultrasonography showed a large fibroid along posterior wall of uterus and cervix with bilateral mild hydro-uretero-nephrosis. CECT confirmed this diagnosis. Her kidney function test and urine analysis were normal.
Patient was posted for laparotomy. Intra-op findings revealed a 15*12*12 cm central cervical fibroid impacted in the pelvis and displacing the normal sized uterus upwards giving it a typical

"Lantern of St Paul's dome" appearance. (figure1) After careful delineation of the surrounding structures and bladder dissection, myomectomy was done. It was followed by total abdominal hysterectomy. Bilateral ovaries were preserved.There were no intra-operative and post-operative complications. She was stable and discharged on day 10. Histopathology report suggested leiomyoma. (Figure 2) Her postoperative ultrasound showed resolution of bilateral hydronephrosis.

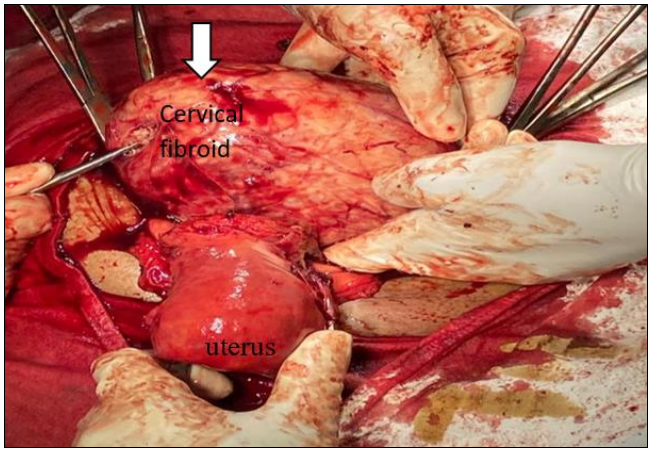

Fig 1: "Lantern of St Paul's dome" appearance of cervical fibroid during laparotomy.

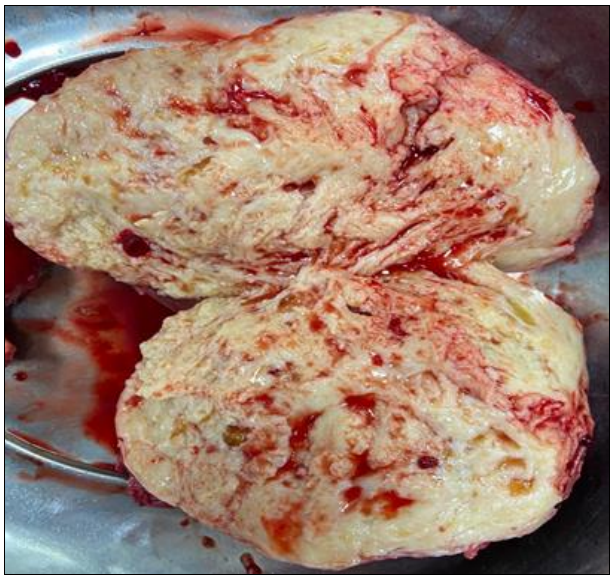

Fig 2: Cut section of the cervical fibroid.

Case 2

A 52 year old para 3 live 3 post-menopausal female presented with complaints of huge irreducible mass coming out of vagina since 1 month, urinary retention since 2 days. Her general and systemic examination was within normal limits. Per Abdomen no mass was felt. On local examination there was a large lobulated mass of 20*20 cm with areas of cystic degeneration and necrosis seen protruding out of vagina. (Figure 3) There was an offensive odour due to tissue sloughing. On per vaginal examination, pedicle was felt but the origin could not be determined and bimanual examination was restricted.

MRI scan reported a giant cervical fibroid with secondary vaginal prolapse and bilateral ureter kinking. Patient was started on parenteral broad spectrum antibiotics, local antiseptics and regular dressing. She was posted for exploratory laparotomy and dealt with abdominal as well as vaginal approach. During operation the uterus was not visualized and bilateral fallopian tubes were found going deep into the vagina suggesting an accompanying uterine prolapse.

Actual anatomy of the mass and its relationship with surrounding structures was delineated when the patient was examined under anaesthesia in operation theatre. Hence this infected fibroid was accessed per vaginally and cauterized from its origin that is 9 o clock position of cervical wall. Following this the abdominal anatomy became clear and hence procedure proceeded with total abdominal hysterectomy with bilateral salpingo-oophorectomy. Postoperative patient was stable and discharged on day 12. Histopathology of the specimen confirmed the diagnosis.

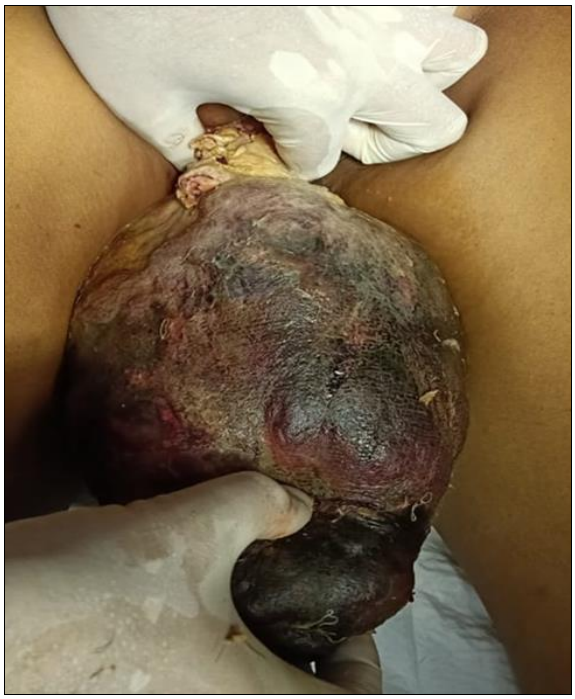

Fig 3: Cervical fibroid polyp with necrosis

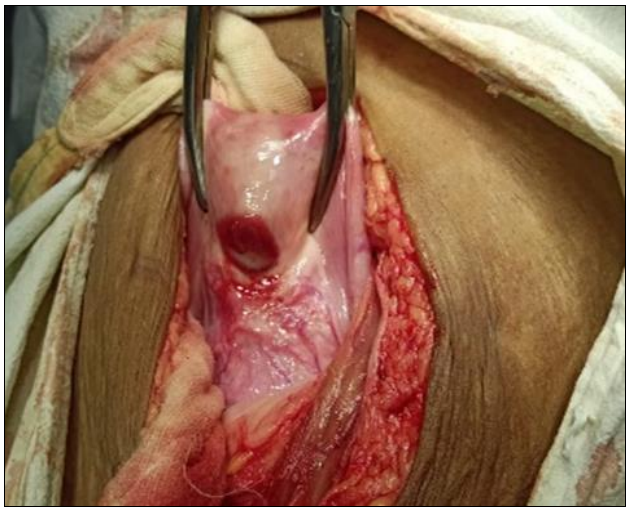

Fig 4: The uterus after excising the fibroid

Case 3

A 37 year old para 2 live 2 pre-menopausal woman came with complaints of dysmenorrhea, dyspareunia and pain in lower abdomen since 6 months with increased frequency and difficulty in micturition since 1 month. General and systemic examination were normal. On Per Abdomen examination, a firm non-tender

mass of 14 weeks size could be palpated. On per speculum examination posterior fornix was obliterated and cervix could not be differentiated from the mass.Patient was catheterized and bimanual examination revealed a mass of size 10 * 10 cm occupying the posterior and right lateral fornix. Uterus could not be differentiated from the mass.

Ultrasonography suggested a posterior cervical fibroid of 10*5*3 cm. Her kidney function test and urine analysis were normal. Patient was posted for Laparotomy. Intra-op there was evidence of a large fibroid measuring 8*8*6 cm arising from the posterior part of cervix. (Figure 5) The uterus was displaced upwards. "Lantern of St Paul's dome" appearance was also seen in this case.

Fibroid was enucleated after creating a plane of dissection and hysterectomy was done sparing the bilateral ovaries. There were no intra-operative and post-operative complications. Patient was stable and discharged on day 7. Histopathology report suggested cervical leiomyoma.

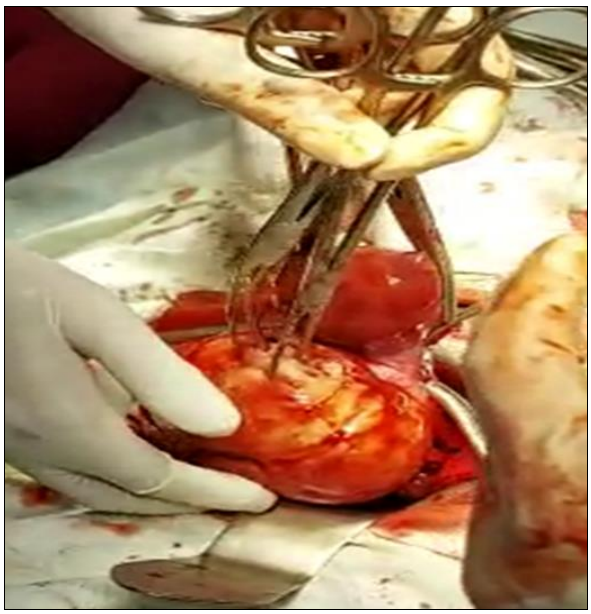

Fig 5: Posterior cervical fibroid of 8*8*6 cm with displaced uterus

Case 4

A 55 year old para 2 live 2 post-menopausal female came with complaints of something coming out of vagina since 2 days, postmenopausal bleeding since 2 days with no history of altered bowel and bladder habits. On clinical examination she was pale, her vitals were normal and systemic examination unremarkable. Abdomen was soft, non-tender with no organomegaly. On local examination, large multilobulated, variegated mass of size 10*10 cm was seen with areas of congestion and necrosis. (Figure 6) Mass was very friable and fragile. External os couldn't be appreciated. On per speculum examination this large pedunculated mass was seen arising from posterior lip of cervix. On bimanual palpation uterus was not palpable.

Ultrasonography was suggestive of cervical fibroid. Patient was started on broad spectrum antibiotics, local antiseptics and regular dressing. She underwent vaginal hysterectomy with fibroid enucleation. This huge cervical fibroid caused surgical difficulty because of relative inaccessibility and proximity to anterior bladder and posterior rectum. The principle followed was enucleation of fibroid followed by hysterectomy in order to minimize injury to ureter. No intraoperative and postoperative complications were noted. Patient was stable and discharged on day 7. Histopathology report suggested leiomyoma.

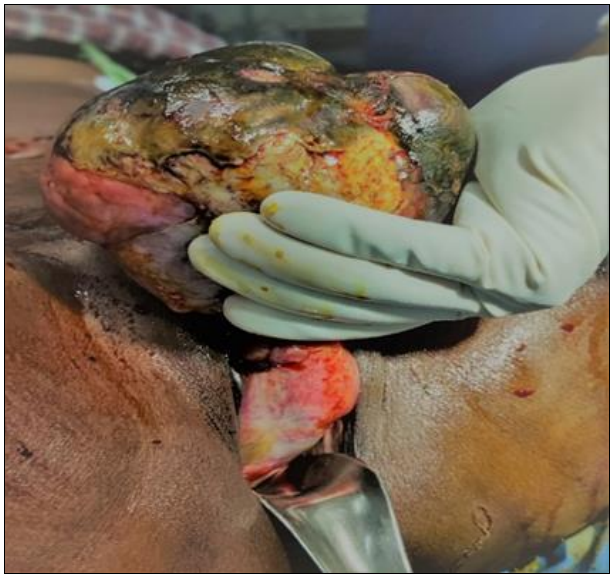

Fig 6: Large multi-lobated, pedunculated fibroid with areas of congestion and necrosis.

Discussion

Cervical fibroids are rare and can be anterior, posterior, lateral and central. It commonly occurs as a single fibroid but can also be multiple and is either interstitial or subserous [2, 3, 5, 6]. Rarely can it be sub mucosal or polypoidal [3, 6]. In this study we noted 2 central interstitial fibroids and two polypoidal variety. Very few cases of large isolated cervical fibroids have been reported in literature as excessive growths in cervical fibroids are rare due to the paucity of smooth muscles in the cervical stroma [1, 2, 3, 5, 6]. Fibroids are oestrogen dependent and usually occur in the reproductive age group. However in this study two patients were post-menopausal. Risk factors among postmenopausal women include high blood pressure, low vitamin D levels, family history of fibroids, obesity, use of hormonal replacement therapy [3, 7].

The presenting symptoms depend upon the type of cervical fibroid. Anterior fibroid undermines the bladder while posterior flattens the pouch of Douglas thus compressing rectum against sacrum. Hence retention of urine, constipation and abdominal mass are common symptoms. Lateral cervical fibroid that begins at the side of the cervix expands the broad ligament [2, 5, 6]. When the ureter and uterine artery are related to the fibroid, they will always be extracapsular [6]. This knowledge makes the surgical procedure relatively safe. Central cervical fibroid expands the cervix equally in all directions and can be recognized easily on opening the abdomen because the cavity of the pelvis is filled by the tumour. Elevated on top of this fibroid is the uterus, thereby giving the appearance of "the lantern on the top of St Paul's" [3, 6]. This typical appearance was seen among cases reported by Samal *et al.* and Gupta *et al.* which was comparable with two of the cases in this study who came with urinary complaints [3, 5].

Cervical fibroid polyp presenting as protruding introital mass can also be one of the presentation. It could be associated with necrosis and foul smelling discharge.[5]Two patients in this study presented with huge necrosed fibroid polyp who were initially treated with intravenous antibiotics. Similar cases were reported by ribeiro *et al.*, gupta *et al.* and Ikechebelu *et al.* [2, 5, 8]. Differential diagnosis for this type of fibroid includes uterine inversion, cervical carcinoma, cervical polyp and prolapse of uterus. Abdominal and Bimanual palpation help differentiate them such that dimpling of fundus is found in inversion and sounding is not possible. Prolapse of uterus can be differentiated

from cervical fibroids which are firm and have no cough impulse [3].

These masses can be evaluated by various modalities of imaging such as ultrasonography, computed tomography and MRI. To accurately localize the leiomyomata & surgical planning for myomectomy MRI plays a superior role [2, 5]. In this study all the cases had undergone ultrasonography and mild bilateral hydro-uretero-nephrosis was seen in first case of central fibroid and ureter kinking in second case of fibroid-polyp. A study by Samal SK *et al.* also reported a large cervical fibroid with mild hydroureteronephrosis [3].

Laparotomy is the most common mode of surgical dissection. Other management options include laparoscopic laser excision, diathermy/harmonic scalpel loop morcellation and uterine fibroid embolization [1, 4]. Surgical treatment depends on the characteristics of the uterus, any concomitant uterine pathology and characteristics of myoma like number and location [2, 5]. Poor access to operative field, difficulty in suturing the repairs and increased blood loss are some of the difficulties faced during operation [5].

Many problems can be anticipated during hysterectomy for large cervical fibroid like injury to ureter, bladder and uterine vessels due to distortion of normal anatomy of ureter and uterine vessels which are elevated and run parallel to ovarian vessels forming a vascular leash close to the uterus. Also the bladder may be pulled up anteriorly. The principal to be followed is enucleation followed by hysterectomy to minimize injury to ureter [3, 5]. This principle was used in the two abdominally operated cases of this series. Pre-operative gonadotropin-releasing hormone analogues given 3 months prior to surgery have been tried by few researchers to reduce the size and vascularity of fibroids [4, 6]. But they have a disadvantage of destroying the plane of cleavage between the capsule of the tumour and the surrounding structures [6]. Intra-capsular enucleation of the cervical fibroid is the best approach to prevent injury to the bladder and ureters.

The presence of long pedicle in pedunculated cervical fibroid polyp favours vaginal myomectomy due to adequate vaginal access and mobility of the mass. Both fibroid polyps were removed in this fashion before proceeding to hysterectomy. Cases reported by Gupta *et al*. also underwent similar procedures [5].

Conclusion

Cervical fibroids are rare with varying clinical presentations. Their management is a challenge to gynaecologists as they are difficult to operate due to their close proximity to pelvic structures. Complete pre-operative evaluation with good anatomical and clinical knowledge helps to anticipate the intra-operative complications and manage them. Hence cervical fibroid should always be kept in mind while evaluating any pelvic mass and treated accordingly.

References

1. Sunanda N. Large cervical fibroid: a rare case report, Int J Reprod Contracept Obstet Gynecol 2019;8:3414-6.
2. Ribeiro A, Oliveira N, Moreira M, Ramos F. A Giant Cervical Fibroid: Case Report, Clinical Case Reports International - Gynaecology and Obstetrics 2019;3(1107):1-2.
3. Samal SK, Rathod S, Rajsekaran A, Rani R. An unusual presentation of central cervical fibroid: a case report, Int J Res Med Sci 2014;2:1226-8.
4. Wong M, Thompson OM. Large cervical fibroids: a surgical challenge, ultrasound in Obstetricsa and Gynecology 2015;46(1):156.
5. Gupta A, Gupta P, Manaktala U. Varied Clinical Presentations, the Role of Magnetic Resonance Imaging in the Diagnosis, and Successful Management of Cervical Leiomyomas: A Case-Series and Review of Literature. Cureus 2018;10(5):e2653. Doi:10.7759/cureus.2653.
6. Mendiratta S, Dash S, Mittal R, Dath S, Sharma M, Sahai RN. Cervical fibroid: an uncommon presentation,Int J Reprod Contracept Obstet Gynecol 2017;6:4161-3.
7. Andrew J. Leiomyomas of uterine cervix: a study of frequency, MSD manual, Kshirasagar SN. Unusual presentation of cervical fibroid.
8. Ikechebelu JI, Eleje GU, Okpala BC *et al.* Vaginal myomectomy of a prolapsed gangrenous cervical leiomyoma. Niger J Clin Pract 2012;15:358-60.