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Case Report

Lantern on dome of St Paul's: successful removal of a cervical fibroid with unusual presentation: a case report

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ABSTRACT

Fibroids are most common benign tumour. Most commonly fibroids are situated in the body of uterus but rarely in cervix accounting only about 1-2% of all cases. We report a case of a 49 years old nulliparous women with gradually increasing abdominal mass for one and half year associated with urinary symptoms. A huge mass of 20week size of gravid uterus revealed in abdominal examination which was non tender, firm in consistency, immobile with regular margin and smooth surface. In USG abdomen and pelvis showed huge abdominopelvic mass. CT revealed mass lesion occupying body of uterus and cervix with displacement of endometrium and elongated cervix. Ureters displaced laterally. Total abdominal hysterectomy with bilateral salpingo-oophorectomy was performed. Histopathological examination confirmed diagnosis confirmed diagnosis of benign smooth muscle tumour -cervical leiomyoma with significant inflammation. The postoperative period was uneventful.

Keywords: Cervical fibroid, Leiomyomas, Lantern on dome of St Paul's, Total laparoscopic hysterectomy

INTRODUCTION

Fibroid is the most common benign tumour of the uterus and it is also the commonest benign solid tumour in females.[1] They are responsible for about one-third of the hospital admission in the gynaecological department.[2] About 3% among outpatient have incidence of symptomatic fibroid in the hospital. These are common in nulliparous women or in patients with infertility after one child. The women of age group 35-45 years have highest prevalence. The most common location of fibroids is body of uterus and multiple in number but the cervical fibroid is rare accounting for 1-2% of the cases. Due to growth of this fibroid, anatomical disturbance in the pelvis can occur.[1] Cervical fibroids usually arise from the supra vaginal part of the cervix, they are further classified as anterior, posterior, central and lateral.[3] The clinical presentation of such tumours depends upon the size and location of the cervical fibroid. Anterior fibroids exert pressure effects on the bladder causing urinary retention or urinary frequency due to pressure over the utero vesical junction. Posterior fibroids press over the rectum thereby flattening it and cause constipation or painful defecation while the lateral fibroids grow into the broad ligament and compress the ureters leading to hydro ureters.[4] This case report presented below shows its rare form of fibroid with unusual complaints of the patient.

CASE REPORT

A 49-year-old nulliparous married woman came with the complaint of abdominal mass for one and half year gradually increasing in size associated with dull ache pain. She also complained about frequent micturition and incomplete voiding of bladder with intermittent dribbling of urine from past 6 months. She had no history of weight loss or loss of appetite. She had no history of menstrual irregularities. Past menstrual history was regular with 3-4 days of normal flow. There is no significant family history for leiomyomas.

On general and systemic examination, no abnormality was identified. On abdominal examination, a huge mass occupying lower abdomen extending into pelvis, corresponding to 20 week size of the gravid uterus was palpated, which was nontender, firm in consistency, immobile, with a smooth surface and regular margins. No free fluid in pouch of Douglas. On speculum, cervix and vagina appeared to be normal healthy. she was not sexually active, vaginal examination could be done. On per vaginal examination, the mass felt continues with cervix, the uterus could not be felt continues with cervix, the uterus could not be felt separate from the mass and it was felt through all fornixes.

On investigation her haemoglobin was 11 gm%. Liver and renal function tests showed no abnormalities. The tumour marker CA 125 level was 7.3 IU. Her USG abdomen and pelvis showed a huge abdominopelvic mass of 25×15×13.4 cm size, both the ovaries appeared normal. Computed tomography (CT) of abdomen and pelvis showed bulky uterus with enhancing mass lesion of size 22×11×11 cm occupying body of uterus and cervix with the displacement of the endometrium anteriorly, possibly of polyp extending into the vagina. The length of cervix appeared to be elongated up to 11.4 cm, appeared heterogeneous hypoechoic lesion, both ovaries appeared normal. Ureters were displaced laterally. Hence, it suggested a provisional diagnosis of large cervical fibroid with elongated cervix and she was planned for surgery.

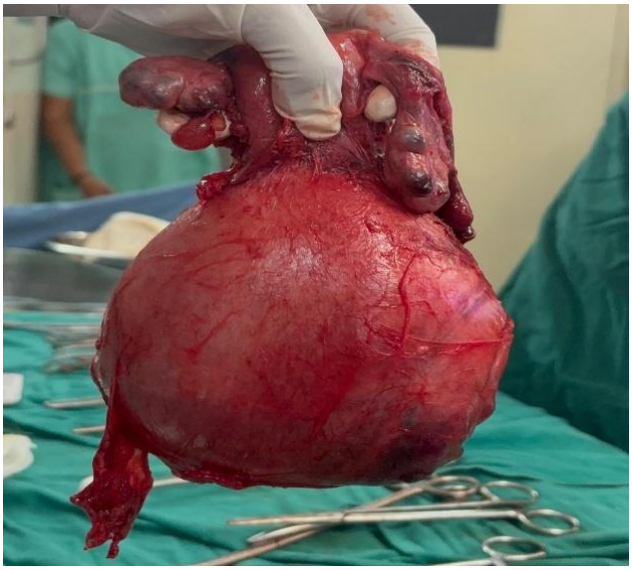

Figure 1: Lantern on top of the St. Paul's cathedral.
*A huge central cervical fibroid and normal uterus and ovaries sitting on top of the fibroid.

Total laparoscopic hysterectomy with bilateral salpingo-oophorectomy was performed and the specimen as removed as around 23×10×11 cm. Huge cervical fibroid. The uterus was sitting on top of cervical fibroid exactly as described as a lantern sitting on dome or top of St Paul's cathedral. Vascular uterine vessels were stretched enormously along length of fibroid, and uterus with displaced laterally. After cauterization of bilateral uterine vessels and the specimen was removed from vagina carefully. Integrity of bladder and uterus was checked and was found normal. The specimen was sent to histopathological examination (HPE) showed interlacing fascicles elongated smooth muscle with background inflammation of eosinophilic cytoplasm and distinct cell membranes suggestive of benign smooth muscle tumour-cervical leiomyoma with significant inflammation. The post operative period was uneventful. The patient was discharged in good condition. After 2 weeks of post-surgery, the patient visited for follow up, wound was checked and stitches were removed. She resumed normal activities within 6 weeks.

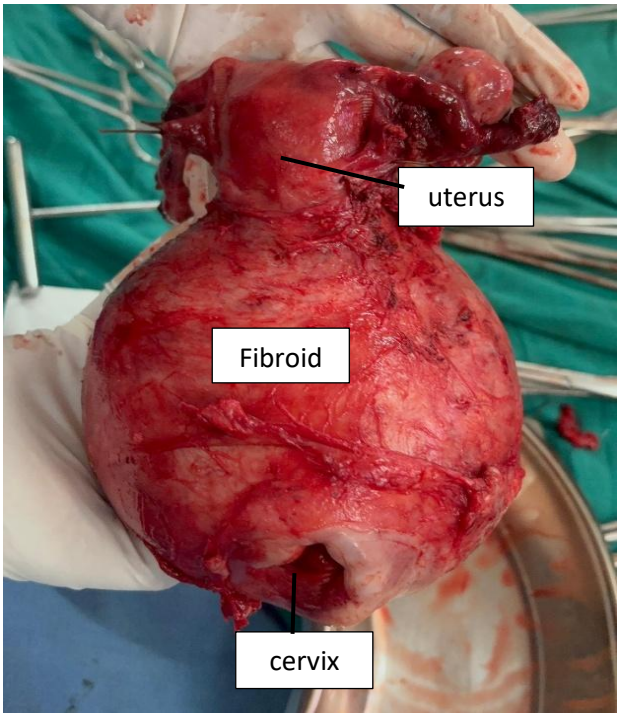

Figure 2: Gross appearance of cervical fibroid after removal.

DISCUSSION

Cervical leiomyomas accounting for 1-2% of all the uterine leiomyomas. Depending upon the position, it may be anterior, posterior, lateral or central. Interstitial growths may displace the cervix or expand it so much that the external OS is difficult to recognize. All these disturb the pelvic anatomy, especially the ureter. Central fibroid produces predominantly bladder symptoms. The cervix is expanded on all sides. The uterus elevated on the top of this expanded fibroid giving the appearance of "lantern on the dome of St Paul's".[1] A cervical fibroid exerts pressure on the bladder, ureter and in rare cases on the rectum.[5] Unlike other case, this patient presented with bladder symptoms and investigation showed that ureter was laterally displaced.[6] The imaging assessments were helpful in evaluating the pelvic structures for planning treatment. Sonography is the most readily available and least costly

imaging technique to differentiate fibroids from other pelvic pathology.[7,8] Cervical fibroid has difficulty to treat surgically due to their relative inaccessibility and proximity to the anterior bladder, posterior rectum and distorting the normal anatomical relationship of pelvic structures.[9] Confirmation of diagnosis is by radiological imaging techniques like ultra sonogram, CT scan and MRI scan. A contrast CT is done to rule out involvement of the ureters and also to delineate the course of the ureter.[10] 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. Surgical treatment depends on the characteristics of the uterus, any associated uterine pathology and characteristics of myoma like number and location.[11]

CONCLUSION

Thus, we conclude here that due to rarity and significance of large cervical fibroids in gynaecological conditions, knowledge of proper diagnostic evaluation and surgical treatment approaches is needed for effective management. The new methods of diagnostic evaluation like transvaginal sonography, CT scan, MRI are helpful in accurate preoperative diagnosis. The proper knowledge of pelvis and pelvic organs anatomy and proper surgical techniques of good surgeon are important to operate such cases, to prevent complications while operating.

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