

A rare case of central cervical fibroid with characteristic “LANTERN ON TOP OF ST.PAUL” appearance

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ABSTRACT

Fibroids arising from cervix are rare tumors accounting for 2% of all fibroids. A central cervical fibroid is usually either interstitial or submucous in origin and arises from supravaginal portion of the cervix so that it expands the cervix equally in all directions and displaces uterine vessels & ureters. On laparotomy it can be recognized at once, as it fills pelvis, with uterus on top of tumour like “the Lantern on the top of St.Pauls” As they arise from deep

pelvis and get impacted, surgery poses difficulties and complications are not uncommon. Here is such a case that resulted in mild hemorrhage and injuries to bladder and ureters due to its size, impaction, anatomic distortion and increased vascularity. In spite of that patient was well managed and was discharged without any post-operative complications.

Key words: *Central Cervical fibroid; Distortion of anatomy; Laparotomy; St.Pauls lantern; Ureteric injury*

Introduction

Cervical fibroids account for 2% of all fibroids [1,2]. They arise from either supra-vaginal or vaginal portion of cervix. They are classified as anterior, posterior, lateral & central depending on their site of origin. Each fibroid presents differently. A central cervical fibroid is usually either interstitial or submucous in origin and arises from supravaginal portion of the cervix so that it expands the cervix equally in all directions. On laparotomy it can be recognized at once, as it fills pelvis, with uterus on top of tumour like “Lantern on the top of St.Pauls” and poses practical problems during surgery. This characteristic appearance doesn't occur when there are 2 or more fibroids in the body of the uterus. Rarely a submucous fibroid arising from the fundus of the uterus may burrow downwards to lie in the position of the cervix and simulates to form a pseudocervical fibroid.

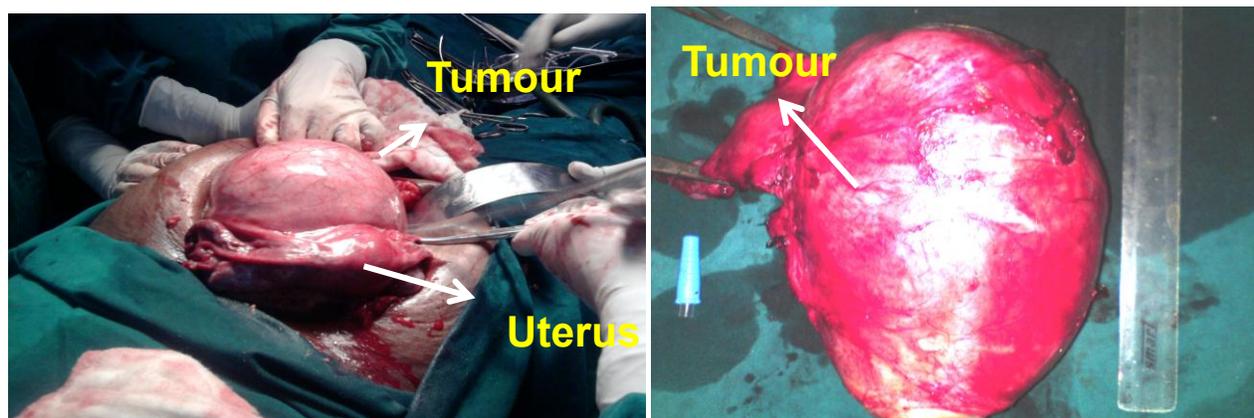
Case report

A 40 year old woman; Para₂Live₂, tubectomised, reported at Mamata General Hospital, Khammam, with mass in the lower abdomen, noticed since 2 months, associated with dysmenorrhoea and no other menstrual

irregularities. The examination was carried with the prior consent from the patient, on examination patient was anemic. Per abdomen, a firm mass of 20weeks in size, with restricted mobility arising from pelvis was noticed. Per speculum, cervix was not visualised as bulging mass was seen in upper vagina. On per vaginal examination, mass was felt anteriorly and through all fornices. Posterior lip of cervix was felt as a rim. Uterus was not felt separately.

USG showed large mixed echogenic mass of 20 × 14 cm, with mild vascularity and another mass (6 × 3cm) on fundus, both suggestive of fibroids. On intravenous urography both mid ureters were found displaced with right hydronephrosis. Contrast CT scan confirmed above findings.

At laparotomy large mass was filling the pelvis with normal uterus perched on top (lantern on top of St.Paul's) (Figure: 1), with a leash of blood vessels at both cornua. Bladder was drawn up and adherent to the mass. Mass was mobilized upwards and removed in toto. In spite of thorough investigations and meticulous precautions during surgery, we encountered transection of right ureter, accidental ligation of left ureter and bladder injury.

Figure: 1. CERVICAL FIBROID WITH UTERUS ON TOP

With the help of urologist, right ureteroureteric anastomosis, deligation of left ureter with bilateral ureteric stenting and bladder repair was done. Suprapubic catheter, per-urethral catheter and intra-abdominal drain were kept insitu. Post-operative period was uneventful.

Drain was removed on 7th day, suprapubic catheter on 10th day, per-urethral catheter on 21st day and stents after 6 weeks and patient was discharged without any residual complications.

On gross examination the mass lied in place of cervix and uterus was found perched on top of the mass. Cut section revealed a firm mass with whorled appearance and pseudocapsule. Histo-pathological examination confirmed the diagnosis of fibroid.

Discussion

Uterine myoma is the most common indication of hysterectomy. Presence of isolated fibromyoma in cervix with intact uterus is infrequent. Cervical fibroids with excessive growth are uncommon. They can arise from supra-vaginal or vaginal portion of cervix. Supra-vaginal fibroids can be central surrounding the entire cervical canal and lying centrally in pelvis displacing the ureters superiorly. Pedunculated fibroids arise from endocervical canal or from uterine cavity and protrude through the cervix. Sessile cervical fibroids arise from cervical lips of vaginal portion and are rare [3].

Cervical fibroids may be classified as: anterior, posterior, lateral, central and lastly multiple. The symptoms of cervical fibroid depend upon the type of cervical fibroid [4].

Anterior fibroid bulges forward and undermines the bladder while posterior fibroid flattens the pouch of douglas backwards, compressing rectum against sacrum. Lateral cervical fibroid, starting on the side of the cervix burrows out into the broad ligament and expands it. Their relation to the ureter is important. Wherever the ureter and uterine artery may be in relation to the fibroid, they will always be extracapsular [5]. The knowledge of this fact can turn potentially dangerous procedure into a relatively safe operation.

Central cervical fibroid expands the cervix equally in all directions. Upon opening the abdominal cavity, a central cervical myoma can be recognized at once because the cavity of the pelvis is more or less filled by a tumor, elevated on the top of which is the uterus like 'the lantern on the top of St Paul's' [5].

The operation for removal of cervical fibroid is hysterectomy, but it can be difficult, and may at times be an extremely formidable undertaking [6]. The problems anticipated during hysterectomy for cervical fibroid are: 1) uterine vessels- displaced upwards & outwards; 2) Bladder can be pulled up; 3) ureter- distortion of normal anatomy. Therefore, more chances of injury to ureter, bladder and uterine vessels.

A Central cervical fibroid forms a special case as it is not usually suitable for treatment by standard hysterectomy techniques [6], hence prone for complications like hemorrhage and urological injuries as discussed above. This is because uterine vessels are so elevated as to run parallel to ovarian vessels forming a vascular leash close to ureters. The tumor may be impacted in the pelvis displacing the ureters and over hangs the vaginal vault so much that

this cannot be reached until the myoma is dislocated upwards or removed by myomectomy.

We followed the technique of dislocating the tumour upwards & removal of fibroid intoto, as large dilated veins were seen over the capsule & myomectomy seemed difficult. As the anterior and central cervical fibroids undermine the bladder and displace the ureters, there is every chance for them to be injured as seen in similar case report published in Katmandu university medical journal⁷. Intra-operative delineation of ureters and pre-operative ureteric stenting are essential precautions, but could not be done in above case due to anatomical distortion.

Intra-capsular enucleation of fibroid is the best approach to prevent injury to bladder and ureters, which was not feasible in above case due to large vessels running over the capsule in all directions and bladder was adherent and drawn up.

Conclusion

In spite of the fibroid being huge, vascular & deeply impacted in pelvis, the whole tumor was removed intoto successfully without any significant haemorrhage. Ureteric & bladder injuries were indentified promptly & treated meticulously. The patient was discharged without any residual complications. Thus, we conclude that knowledge of the altered anatomical structures is important for doing hysterectomy for cervical fibroid.

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Conflict of Interest: None