



## Mistaken Identity : Large Cervical Fibroid Mimicking Ovarian Neoplasm

<b>Dr Preeti Lewis</b>	Associate Professor , OBGY, GGMC, JJH, Mumbai
<b>Dr Vilas N Kurude</b>	Associate Professor ,OBGY, GGMC , JJH ,Mumbai
<b>Dr Surbhi Sinha</b>	Resident Doctor ,OBGY,GGMC, JJH, Mumbai
<b>Dr Mehel Bhansali</b>	Oncosurgeon, CAMA Hospital, Mumbai

### ABSTRACT

Giant fibroids are known to arise from the uterus, and very rarely from the cervix . Cervical fibroids account for 2% of all fibroids (1,2). They arise from deep pelvis and get impacted hence causing surgical difficulties and frequent complications . Here is such a case of a huge cervical fibroid measuring 32x28x16 cm weighing 8.5 kg masquerading as ovarian neoplasm managed at our institute with minimal blood loss and inadvertent injury to bladder due to its size, impaction, anatomic distortion and increased vascularity. The ultrasonographic and contrast-enhanced computed tomographic findings of this case were suggestive of ovarian neoplasm. The rare possibility of a giant fibroid with cystic degeneration was kept as a differential diagnosis. The diagnosis was however confirmed on histopathological examination after the patient underwent exploratory laparotomy with removal of the large cervical fibroid, en mass with uterus and tubes and ovaries .Patient was discharged without any post-operative complications.

### KEYWORDS

Broad ligament, computed tomography scan, fibroid, ultrasonography , cervix

### INTRODUCTION

A leiomyoma or fibroid is the most common uterine neoplasm, with a prevalence of 20% to 30% in patients older than 30 years. They develop in the portion of cervix .They originate either from supra-vaginal or vaginal portion of cervix. Commonly, cervical leiomyomas are single and are either interstitial or subserous. Rarely they becomes submucous and polypoidal . Giant fibroids distort the shape of the cervix , lengthen it or may even push the uterus upwards or laterally .Rarely, they may grow rapidly causing obstructive symptoms like retention of urine , urinary frequency, constipation, menstrual abnormalities, dyspareunia , and rarely post coital bleeding . The sonographic appearance of a uterine fibroid is usually characterized by a homogeneous or heterogeneous hypoechoic uterine mass, but the appearance can be variable, with degenerative changes appearing as a diagnostic challenge. They can mimic ovarian cyst, endometrioma, abscess, and endometrial hyperplasia. They cause operative difficulties and need an expert hand to operate these cases . This case exemplifies the diagnostic dilemma of a large cervical fibroid mimicking an ovarian neoplasm in a perimenopausal patient.

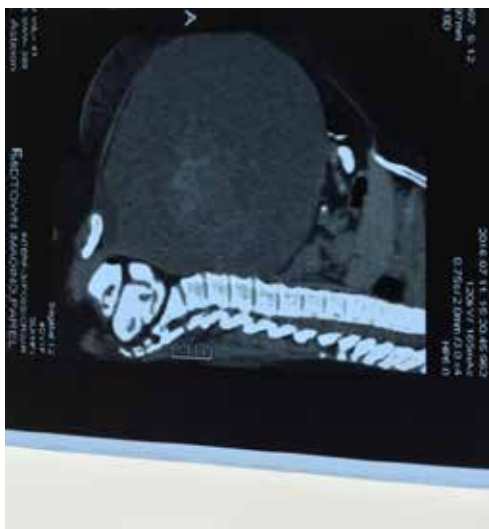
### CASE STUDY

A 40-year-old multiparous lady, came with a 2-month history of abdominal distension. She had no history of bowel or bladder complaints, weight loss, anorexia, or fever. Previous menstrual cycles were regular. The patient was afebrile, pulse 76/min, and blood pressure 130/80 mmHg. Abdominal examination revealed a huge mass arising from pelvis extending in all quadrants , superficially reaching upto xiphisternum and inferiorly upto hypogastrium .



**Fig 1 : Pre-operative abdominal mass**

On palpation, mass was found to be cystic to firm in consistency, non-tender, transversely mobile with irregular margins . Per speculum, cervix was not visualised as bulging mass was seen in upper vagina. On per vaginal examination, cervix was flushed with the vagina and high up , the mass was felt in the pouch of Douglas and through all fornices with uterus pushed antero-medially . Rectal mucosa was free. Routine blood investigations were within normal limits. Ovarian tumor markers were also normal . On ultrasonography, a 24x25 cm sized solid cystic(predominantly solid) lesion, heterogeneously hypoechoic ,likely neoplastic was seen in the right adnexa compressing the uterus anteriorly behind the bladder with endometrial thickness 4.5 mm . The mass showed vascularity within and right ovary was not seen separately from the lesion. Left ovary was normal. Diagnosis of right ovarian neoplasm was made.



**Fig 2: CECT (A+P) showing sagittal view of the pelvic mass.**

On contrast-enhanced computed tomographic (CECT) scan of abdomen and pelvis, a large thick walled abdomino-pelvic cyst was noted arising from right adnexa measuring 20x27x-28cm with solid enhancing nodulated mural nodule within the mass measuring 10.4x12.4 in cross section. Few thick internal septae measuring 20x27x28 cm were also noted. The lesion was pushing small bowel loops superolaterally and protruding outside abdominal wall through diverticulation of recti. The septations and solid components showed significant enhancement on postcontrast images. Right ovary was not seen separately from the lesion suggestive of ovarian malignancy most likely serous cyst adenocarcinoma. Final diagnosis based on the CECT scan of abdomen and pelvis was right ovarian neoplasm.



**Fig 3: CECT (A+P) showing coronal view of the pelvic mass.**

The patient was taken up for an exploratory laparotomy with a provisional diagnosis of malignant ovarian tumor. Intra-operatively, an abdomino-pelvic mass of size approximately 32.5 cm x 20 cm x 28 cm was seen with variable consistency and increased vascularity, arising from the right side of the posterior cervix extending into the broad ligament pushing the ureter laterally and pushing the bladder anteriorly. Right fallopian tube, ovarian ligament, and round ligament were stretched over the mass. Right ovary was normal. Left tube and ovary were normal. The mass was loosely adherent to the small bowel loops. As the tumor was distorting the pelvic anatomy, careful dissection was done to prevent ureteric injuries.



**Fig 4: Intra-operative findings**

Removal of the large cervical fibroid, en mass with uterus and tubes and ovaries was done. Bilateral ureters were exposed and visualized normally, but in spite of thorough and meticulous precautions during surgery, a small mucosal rent in posterior wall of bladder occurred which was repaired and suprapubic cystostomy was done with the help of urologist. Suture removal was done on day eight. Foleys catheter and suprapubic catheter were kept for 28 days. Suprapubic catheter was removed after doing micturating cystourethrogram on day 28. Rest post-operative course was uneventful.

The surgically resected specimen weighing 8.5 kg included a large solid cystic mass measuring 32 cm x 28 cm x 16 cm adjacent to the uterus in the right broad ligament with bilateral normal ovaries and fallopian tubes.



**Fig 5: Post operative specimen.**

On histopathological examination, the cut section of the mass showed solid fleshy areas and cystic areas filled with hemor-

rhage. Sections through the endometrium revealed autolytic changes while those through the solid areas revealed well encapsulated tumor composed of interlacing fascicles and bundles of spindle shaped cells separated by collagen fibres and thin slit-like vascular spaces, scattered thick-walled blood vessels, and evidence of cystic, myxoid and hyaline degeneration. The individual tumor cells have moderate amount of eosinophilic cytoplasm and spindly blunt ended mitotically inactive nuclei. Right fallopian tube was stretched and measured 14 cm and right ovary was 3.5 cm × 1.5 cm × 0.5 cm. Cut section of right ovary revealed corpus albicans. Left fallopian tube was 3.5 cm. Cervix showed a mild-to-moderate sub-epithelial lymphocytic infiltrate. There was no evidence of dysplasia or malignancy in the cut sections of the cervix. The final histopathological report was myxoid leiomyoma.

## DISCUSSION

Uterine leiomyoma is one of the most common indication of hysterectomy. Cervical fibroids may be anterior, posterior, lateral, central or multiple. They can arise from supra-vaginal or vaginal portion of cervix. Supra-vaginal fibroids can be central, expanding the cervix equally in all directions or lateral, burrowing out into the broad ligament and expanding it to displace the ureters laterally. Pedunculated fibroids arise from endocervical canal or from uterine cavity and protrude through the cervix while sessile cervical fibroids arise from cervical lips of vaginal portion and are rare (3). The symptoms of cervical fibroid depend upon the type of cervical fibroid (4). Anterior fibroids bulge forward and undermine the bladder while posterior fibroids flatten the pouch of Douglas backwards, compressing rectum against sacrum.

Treatment of huge cervical fibroid is either by hysterectomy or myomectomy and needs an expert hand (5). Myomectomy may be the operation of choice if the patient is young and desirous of having a baby. Preoperative GnRH analogues administration for 3 months facilitate surgery and improve the hemoglobin status (6). In case of vaginal part fibroids, myomectomy is done for sessile tumors while polypectomy is done for pedunculated fibroids.

The operative difficulties anticipated during hysterectomy for cervical fibroids are: 1) displacement of uterine vessels upwards & outwards; 2) Bladder pulled up 3) anatomical distortion of ureters. Therefore, there are more chances of injury to bladder, ureter and hence the relation of cervical fibroids to the ureter is important for the operative intervention. Wherever the ureter and uterine artery may be in relation to the fibroid, they will always be extracapsular [7]. The knowledge of this fact can help in preventing injuries during operation. 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. 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. Intra-operative delineation of ureters and pre-operative ureteric stenting are essential precautions that can be taken to prevent urologic injuries. Intra-capsular enucleation of fibroid 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

Cervical fibroids occur infrequently, although they are histologically benign, may mimic malignant ovarian tumors at imaging and may present a diagnostic challenge. The clinical symptoms and imaging features depend on the location of the lesion and on its growth pattern. Cervical fibroids involved with excessive growth, may cause pressure symptoms (8) Sonography may or may not be able to dissect the details needed for differentiation between ovarian and extraovarian masses because of many factors, such as a limited field of view and inability to view the relationships of large masses with the uterus or ovary to determine their origin.

Magnetic resonance imaging may be helpful in complicated cases due to the distinctive MRI appearances of typical fibroids but should not be used indiscriminately. Also, the knowledge of the altered anatomical structures is important for doing hysterectomy for cervical fibroid to prevent intra-operative complications.

In spite of the fibroid being huge, vascular & deeply impacted in pelvis in the above case, the whole tumor along with uterus and adnexa was removed into successfully without any significant haemorrhage or ureteric injury due to careful dissection. Also bladder injury was indentified promptly & treated meticulously. The patient was discharged without any residual complications.

## REFERENCES

1. Kaur AP: Saini AS; Kaur D; Madhulika; Dhillon SPS. Huge cervical Fibroid-Unusual presentation, The Journal of Obstetrics & Gynaecology of India 2002;52 (1):164.
2. Tiltman, Andrew J. Leiomyomas of the uterine cervix: A study of frequency. International Journal of Gynecological Pathology 1998;17(3):231-4.
3. Kumar P, Malhotra N. Tumours of the corpus uteri. In: Jeffcoat's Principles of Gynaecology. 7th Ed.; Jaypee Brothers Medical Publisher (Pvt.) Ltd. New Delhi. 2008;p.487-516.
4. Buttram VC Jr., Reiter RC. Uterine leiomyomata: etiology, symptomatology, and management. Fertil Steril 1981;36:433
5. Basnet N, Banerjee B, Badani U, Tiwari A, Raina A, Pokhrael H, Yadav P, Agarwal A, Chetri S. An unusual presentation of huge cervical fibroid. Koirala Institute of Health sciences. Kathmandu University Medical Journal (2005) Vol. 3, No.2, Issue 10, 173-174.
6. Lethaby A, Vollenhoven B, Sowter M. Efficacy of pre-operative gonadotrophin hormone releasing analogues for women with uterine fibroids undergoing hysterectomy or myomectomy: a systematic review. BJOG 2002;109:1097-1108
7. Swati Singh, Priyakshi Chaudhary, Central cervical fibroid mimicking as chronic uterine inversion, Int J Reprod Contracept Obstet Gynaecol 2013;2(4):68788.
8. Jeffcoate N. Tumors of corpus uteri. In. Batla N (ed). Jeffcoate's Principles of Gynaecology, 6th edn. Delhi, Arnold Publication 2001, 466 - 497.