

## Cervical Fibroids with Its Management and Review of Literature: An Original Article

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**Abstract:** Most of the leiomyomas are situated in the body of uterus. Fibroids arising from cervix are rare tumours accounting for 2% of all fibroids. A central cervical fibroid is usually either interstitial or sub mucous in origin and usually arises from supravaginal portion of the cervix so that it expands the cervix equally in all directions and can displace 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 we present five cases of cervical fibroid. 4 of the cases had menorrhagia as the presenting symptom whereas one of the cases presented with urinary complaints. In 2 cases the patients were nullipara and were desirous of future fertility hence in one case fibroid was removed by vaginal myomectomy leaving the uterus intact where as in other case laparotomy with cervical fibroid enucleation done and in other three cases enucleation of fibroid was done to remove it followed by total abdominal hysterectomy. [Rajshree K SEAJCRR 2017; 6(1):5-9]

**Key Words:** cervical fibroid, vaginal myomectomy, enucleation, total abdominal hysterectomy

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**Introduction:** Leiomyomas are the most common tumours of the uterus. They are responsible for about 1/3rd of hospital admissions to Gynaecology Department. The incidence of leiomyoma is 20% in the reproductive age group, and only 1-2% are found in the cervix<sup>1</sup>. Growth of leiomyoma is dependent on oestrogen production. The tumour thrives during the period of greatest ovarian activity. Continuous oestrogen secretion especially when uninterrupted by pregnancy and lactation is thought to be the most important risk factor in development of myomata. After menopause, with regression of ovarian oestrogen secretion, growth of leiomyoma usually ceases. Cervical fibroids develop in the wall of cervix. They mainly develop in supravaginal part of cervix<sup>2</sup>. They can change the shape of the cervix or may lengthen it. If cervical fibroid get bigger, it may even push the uterus upwards. In some cases, cervical fibroid may grow rapidly and can obstruct the cervix. A cervical fibroid can lead to infertility, urinary retention, urinary frequency, constipation, menstrual abnormalities, dyspareunia, and sometimes post coital bleeding. Large cervical fibroids are difficult to handle and need an expert hand to operate these cases. The identification of ureters and prevention of injuries to urinary bladder and ureter is important during surgery.

**Case 1:** 40 years old female multipara came to Outpatient department with complaint of dysuria since 15 days with ultrasonography showing bulky uterus with anterior cervical wall fibroid of 15x14cmx12cm and posterior wall fibroid of

7cmx5cm. She had no menstrual complaints. On examination she was vitally stable. Per abdomen examination had mass of 18weeks- 20 weeks uterus size arising from pelvis, on per speculum examination anterior lip of cervix was not visualised, pinkish mass arising from posterior lip of cervix was seen, and it did not bleed on touch. On per vaginal examination uterus of size 18weeks-20weeks, firm to hard in consistency mobile arising from posterior lip of cervix was. Uterus not felt separately from the mass. On MRI scan uterus was 10cmx8cmx7cm, mass arising from posterior lip of cervix extending into vagina 7cmx6cmx6cm suggestive of cervical fibroid was seen. After anaesthetic fitness patient posted for Myomectomy SoS Hysterectomy. After opening the Abdomen the uterus was 10weeks - 12weeks size huge cervical fibroid of 15cmx12cmx10cm with another cervical fibroid of 7cmx5x6 cm was present.(Case1 figure 1,2,3) Total Abdominal Hysterectomy with Enucleation of the cervical fibroid done successfully after the meticulous urinary Bladder dissection and ureteric dissection. Preservation of ovaries done.

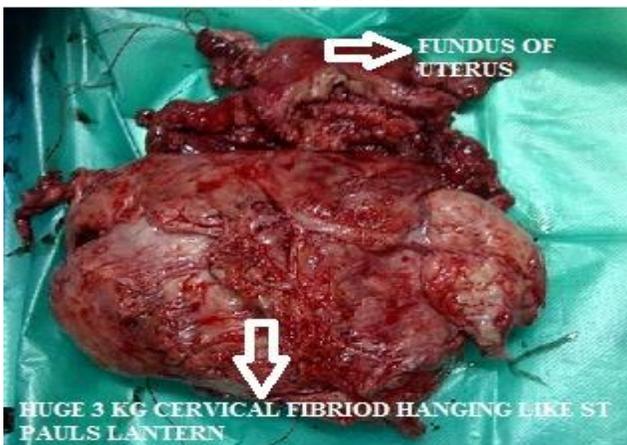
**Case1 Figure 1: Intra operative finding showing large cervical fibroid**



**Case 1 Figure 2- Intra operative finding of uterus with large uterine fibroid**



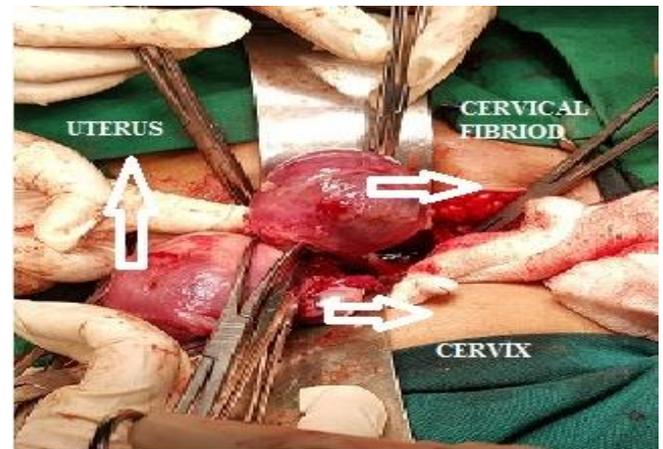
**Case1 Figure 3: Specimen of uterus with large cervical fibroid**



**Case 2:** 38 years old female para one living one [P1L1] married since 20 years presented in Out Patient Department with complaints of mass coming out of vagina associated with white discharge since 2 months . She also had menorrhagia since 5 months. On examination general condition was fair, patient was vitally stable, pallor was absent. Per abdomen was soft, per speculum showed 6cmx4cmx5 cm of mass attached to cervix and some part of it protruding out high up in the vagina, external os not visualised, does not bleed on touch. On per vaginal examination mass of 6cmx5cmx4cm of mass felt protruding from cervical os , cervical rim felt high up around mass. Uterus was bulky Ultrasonography was done which showed 8.3cmx6cmx4.3cm of lesion arising from cervix extending upward in posterior myometrium in uterine body , rest of Ultrasonography findings were normal . MRI was done suggestive of mass of 7.2cmx5.1cmx6cm arising from lower cervix extending into upper vagina suggestive of fibroid of lower cervix. It also showed bicornuate uterus with minimal

extension of lesion into posterior cornua which reveals filling defects within. Bilateral parametrium was normal. The base of bladder was intact. Total Abdominal Hysterectomy with cervical myomectomy done. Cervical myoma was adherent to bladder and was separated from bladder with sharp and blunt dissection. Histopathology confirmed the cervical fibroid. (Figure 1) Patient withstood procedure well. postoperative period was uneventful.

**Case 2 Figure 1: Intraoperative finding of cervical fibroid**



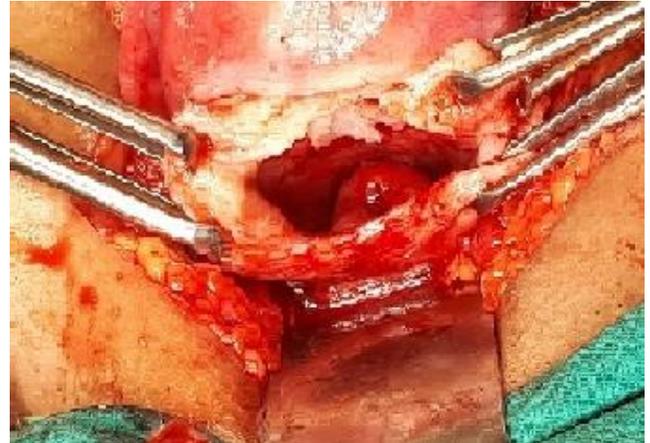
**Case 3:** 21 years old female, nulligravida, married since 2 years presented in Out Patient Department with complaints of menorrhagia since one year. On examination general condition was fair, patient was vitally stable, pallor was present. Per abdomen was soft, per speculum showed 5X5 cm of cervical fibroid protruding out from cervical os, external os not visualised. On per vaginal examination 5x5 cm of cervical fibroid felt, uterus size could not be assessed. Patient had haemoglobin of 5gm% and was transfused with 3 pint of packed cell volume. Ultrasonography showed cervical fibroid of 5.2 x6x 4.5cm with uterus of 9.1x4.5x3cm with normal bilateral ovaries. Patient underwent uterine artery embolization but the symptoms were not relieved with it and size of fibroid was not decreased. Hence decision of vaginal myomectomy was done. Intraoperatively fibroid was held by myoma screw per vaginally and dissected and separated with blunt and sharp dissection skilfully and fibroid send for histopathology and cervix reconstruction done. Intraoperatively two units of blood was given. Patient withstood procedure well. In the follow up period patient is now having regular menstrual cycles with no complaints of menorrhagia.

**Case 3 figure 1: Cervical Fibroid of 7cm x 7 cmx 5 cm size**



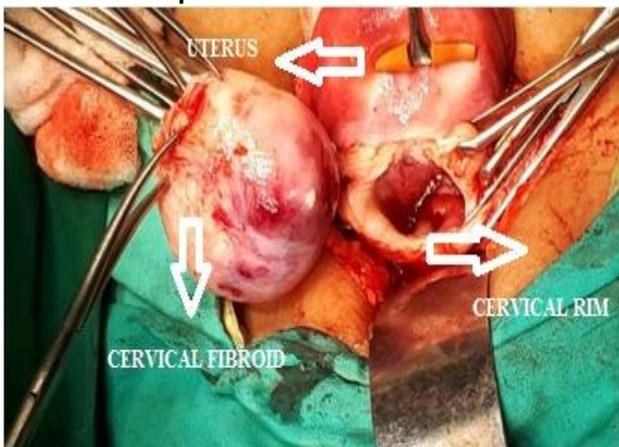
**Case 4:** 35 years old female, nulligravida, married since 2 years presented with complaints of menorrhagia since 3 months. On examination general condition was fair, patient was vitally stable, and pallor was absent. Per abdomen was soft, per speculum showed small mass inside endocervical canal. On per vaginal examination 7cmx5 cm x4cm of cervical fibroid felt Anteriorly. Uterus size could not be assessed. Pelvic ultrasonography showed cervical fibroid extending up to lower uterine segment of size 6.6cm x 5.4cmx 4.5cm with uterus of 11.7cm x 4.8cm x3.6cm with normal bilateral ovaries. Myomectomy done by taking incision over the distended part of cervix anteriorly after dissecting the uterovaginal fold of peritoneum and dissecting the urinary Bladder by sharp dissection as the bladder was adherent to the capsule of fibroid. Fibroid dissected and separated skilfully [Case-4 figure1,2] and fibroid send for histopathology and uterine closure done. Patient withstood procedure well. In the follow up period patient is now having regular menstrual cycles with no complaints of menorrhagia.

**Case 4 Figure 2: intact cervical os without any anatomical distortion**

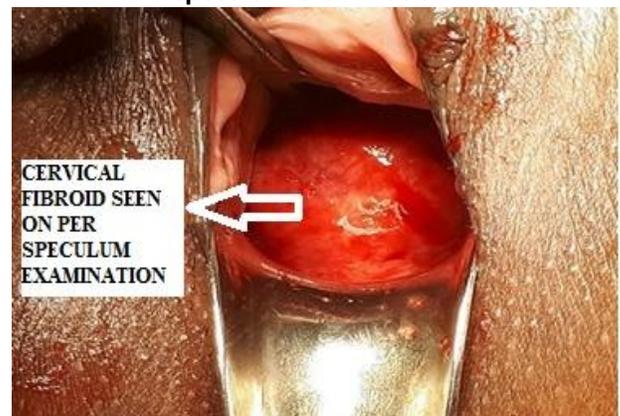


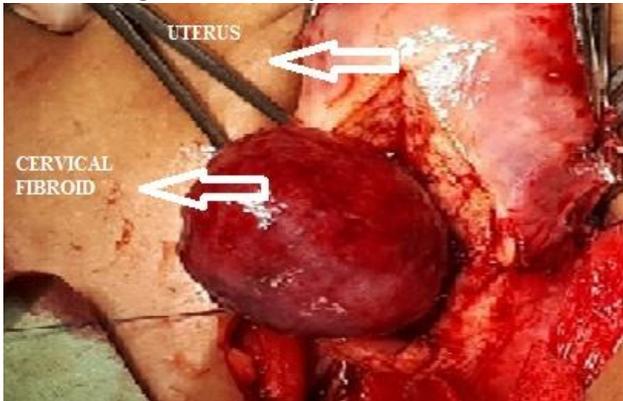
**Case 5:** 37 years old female, Para 2 living 2, married since 21 years presented with complaints of menorrhagia since 3 months. On examination general condition was fair and vitally stable. Per abdomen was soft, per speculum showed mass of 5cmx5 cm arising from cervix with smooth and regular surface. On per vaginal examination uterus size 16 weeks mass of 5x5 cm arising from cervical canal felt .Ultrasonography showed cervical fibroid extending up to lower uterine segment of size 5 x 4 cm with uterus of 10.6x4.5 x 5.4 cm with posterior wall fibroid 1.9 x1.6cm with normal bilateral ovaries. Patient and relatives are explained about surgical line of management, about myomectomy and total abdominal hysterectomy and patient and relatives were willing for total abdominal hysterectomy so fitness done. Intraoperatively incision taken over lower uterine segment to identify the origin of cervical fibroid and fibroid was held by myoma screw and dissected and separated skilfully [Case-5 figure 1,2] and total abdominal hysterectomy done . Patient withstood procedure well.

**Case 4 Figure1: showing leomyoma separated from posterior cervical wall**



**Case 5 Figure 1: cervical fibroid seen on per speculum examination.**



**Case 5 Figure 2: intra operative cervical 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<sup>3</sup>. 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<sup>4</sup>.

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<sup>5</sup>. 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 tumour, elevated on the top of which is the uterus like the Lantern on the top of St Paul's<sup>5</sup>. The operation for removal of cervical fibroid is hysterectomy, but it can be difficult<sup>6</sup>. The problems anticipated during hysterectomy for cervical fibroid are: 1) uterine vessels- displaced upwards & outwards; 2) Bladder can be pulled up; 3) distortion of normal anatomy of ureters may occur. Therefore, more

chances of injury to ureter, bladder and uterine vessels.

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 journal<sup>6</sup>. Intra-operative delineation of ureters and pre-operative ureteric stenting are essential precautions which should be taken. Intra-capsular enucleation of fibroid is the best approach to prevent injury to bladder and ureters, which was done in one of our cases of cervical fibroid in nulligravida patient. Vaginal myomectomy was done with preservation of uterus keeping in mind further chances of fertility in her. Uterine artery embolisation was initially done in this case to decrease size of tumour and also to reduce the blood loss during surgery. Other two cases were operated for total abdominal hysterectomy with enucleation of cervical fibroid.

**Conclusion:** The cervical fibroids are one of the rare entity amongst the types of fibroid. The anterior and central cervical fibroid gives most of urinary complaints from dysuria to retention of urine, and posterior cervical fibroid gives rise to bowel symptoms. These are pressure symptoms. Thorough investigations from imaging modalities, USG, Doppler, CT scan, MRI which gives idea of site, size, vascularity and course of ureter. Good clinical acumen and surgical expertise is required to handle such cases intraoperatively. Proper surgical dissection is required to prevent the injuries to ureter, urinary bladder and the bowel. Dissection and enucleation of cervical fibroid is treatment of choice where fertility preservation is required and it will also help to avoid excessive blood loss, prevent inadvertent injury to ureters or the bladder<sup>7</sup>.

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