

## Obstetrical Forceps in Fibroid Extraction

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### Abstract

Fibroids are common benign tumours of the uterus. Their incidence increases with age but presence of huge fibroid in young age females is less common. For large fibroids in young females which are not manageable by medical means, myomectomy is the primary treatment option. Complete excision of these fibroids without causing inadvertent damage is extremely difficult in some cases. Such challenges call for use of alternative techniques for myoma resection and delivery. We report a case of an unmarried 24 year old female with a 15 cm large submucosal fibroid occluding the lower part of uterus and cervical canal completely necessitating its resection by both abdominal as well as vaginal route. Since hysteroscopic resection was impossible, first laparotomy followed by hysterotomy was performed, from which upper half of the fibroid (within the uterus) was resected and removed, and then remaining lower half of the fibroid (in the cervix and the vagina) “stuck in pelvis” was extracted using obstetric forceps much like the delivery of a fetal head.

**Keywords:** Obstetrics forceps; Fibroid; Myomectomy

### Introduction

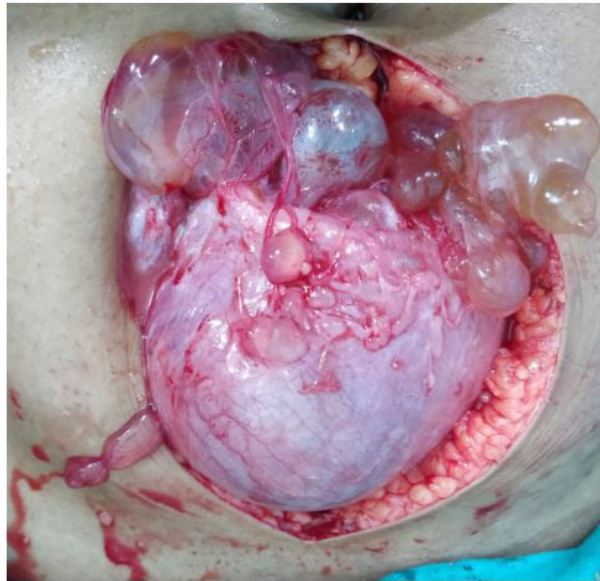
Fibroids are benign, monoclonal tumours of the smooth muscle cells of the myometrium. They are more common in the late reproductive age group women. They occur in over 70% of women by the onset of menopause and are clinically apparent in 25% of women of the reproductive age group [1]. Their incidence increases with age and presence of huge fibroids in young age groups is seen less commonly. For large fibroids in young females which are not manageable by medical means, myomectomy is the primary treatment option [2]. Complete excision of these fibroids without causing inadvertent damage is extremely difficult in some cases. Such challenges call for use of alternative techniques for myoma resection and delivery. We report a case of an unmarried 24 year old female with a 15 cm large submucosal fibroid occluding the lower part of uterus and cervical canal completely necessitating its resection by both abdominal as well as vaginal route. Since hysteroscopic resection was impossible, first laparotomy followed by hysterotomy was performed, from which upper half of the fibroid (within the uterus) was resected and removed, and then remaining lower half of the fibroid (in the cervix and the vagina) “stuck in pelvis” was extracted using obstetric forceps much like the delivery of a fetal head.

### Case Presentation

A 24 year unmarried female presented to the outpatient department with chief complaints of irregular, pro-longed menstrual cycles with increased flow, inter-menstrual bleeding and dysmenorrhea for 1 year and abnormal watery vaginal discharge for 6 months. She received 4 units of packed RBCs for severe anemia. Her abdominal examination was suggestive of a large abdominopelvic mass which corresponds to 16 weeks of pregnant uterus. Gynaecological examination revealed a large submucosal fibroid filling the whole vagina with a broad stalk, origin of pedicle was not reached. Ultrasound showed a pedunculated fibroid in cervical canal bulging into internal os with stalk in its cranial aspect. On MRI, two endometrial cavities were seen with maintained fundal contour with single cervical canal. A 15x 11x 11 cm well defined mass lesion with whorled appearance was seen arising from fundal region of right uterine cavity and was protruding into the cervical canal. The mass was causing expansion of endometrial cavity and thinning of myometrium. There were areas of cystic degeneration within the mass.

Open myomectomy was performed for the patient as there was no space in the cervical canal to allow passage of any probe or hysteroscope. Abdomen was opened by midline vertical approach. Small vesicular blebs containing serous fluid were present

over uterus and adnexa (Figure 1). Bilateral tubes were dilated and tortuous. Adhesions were present between uterus and bowel and between bilateral adnexa and bowel. Pouch of Douglas was obliterated. Uterus opened by transverse fundal incision. Cavity opened. A broad based large submucosal fibroid (approximately 15x12cm) was seen arising from fundus. It was enucleated from its capsule at the cranial aspect and was bisected near lower part of uterus to facilitate removal of the portion lying in the uterine cavity abdominally. The cervical and lower uterine portion of the fibroid was still posing difficulty in removal due to its size which caused restricted movement both superiorly and inferiorly. Hence low obstetric forceps were used to apply steady traction and allow downward movement of the fibroid and its delivery through the introitus (Figure 2). This was coupled with a right mediolateral episiotomy given at the point when fibroid was distending the introitus much like delivery of fetal head using obstetrical forceps. Thereafter uterus was closed using baseball stitch and episiotomy was repaired. One unit of packed RBC was transfused. Postoperative course was uneventful. Histopathology showed Leiomyoma with focal myxoid change. The serosal blebs from various surfaces proved to be fibrocollagenous tissue lined by mesothelium with prominent vessels, areas of old haemorrhage, fibrin deposition and collagenisation (hemorrhagic mesothelial cysts).



**Figure 1:** Intraoperative finding: Small vesicular blebs containing serous fluid over uterus and adnexa



**Figure 2:** Application of obstetric forceps to apply steady traction to fibroid and to allow delivery through the introitus

## Discussion

The presentation of fibroids can vary from abnormal uterine bleeding and dysmenorrhea to pressure symptoms to sometimes even causing renal impairment or urinary retention [3]. According to FIGO classification these can be classified into - submucous, intramural, subserosal, transmural and those with no involvement of the myometrium namely cervical fibroid, round or broad ligament fibroids and parasitic fibroids [4]. The presenting complaints primarily depend on the location of the fibroid and so does the management. Sonography and magnetic resonance imaging are useful modalities for diagnosis of fibroids.

Treatment modalities available today are conservative medical management for asymptomatic or mildly symptomatic fibroids, conservative surgical options such as hysteroscopic myomectomy for submucosal fibroids, laparoscopic myomectomy for subserosal

and intramural fibroids or abdominal myomectomy for large fibroids where fertility preservation is required. Alternatively uterine artery embolisation has been used for fertility preservation in cases of fibroid uterus. Lastly in patients who have completed their family and have very bothersome symptoms definitive surgical management in form of hysterectomy by laparoscopic, abdominal or vaginal route is employed [2].

For a submucosal fibroid the usual surgical approach is hysteroscopic with the main concern being to prevent significant thinning of the myometrium and decrease the risk of uterine rupture in the future pregnancies [2]. It is very rare to use abdominal approach for submucosal fibroids and is done only where hysteroscopy is either not available or not possible.

In a young patient such as the case here, medical management is the most appropriate but the size of the aforementioned fibroid made it refractory to medical options. There was limitation of space around the fibroid to allow passage of hysteroscope through the cervix. The only feasible option left was open myomectomy which is usually least preferred for submucosal fibroids otherwise. The other unique problem faced in this case was when the bulk of the fibroid did not allow delivery of the fibroid both from intra-abdominal as well as the vaginal side despite attempting bisection. The position of the “stuck in pelvis” fibroid made any other techniques of reducing size of fibroid such as coring or morcellation risky. Hence low obstetric forceps was used successfully to achieve delivery of the fibroid.

Historically in the year 1943 an article of BMJ first mentioned use of obstetrical forceps for removal of myomatous polyp from vagina by two physicians Johns Stallworthy and John H. Aytonn separately [5]. Another study by Biswas N, *et al.* (2012) documented use of obstetrical forceps for removal of partially expelled fibroids after uterine artery embolisation thereby reducing post procedural symptoms [6].

## Conclusion

Apart from these few case reports there are very limited studies on such unconventional use of obstetrical forceps in surgical management of large fibroids. One of the reasons for limited literature here is the rarity of such patient and disease profile necessitating such application. Also in the current age of robotic surgeries and availability of multiple options for surgical management of fibroids, there is limited application for historical equipment like Obstetrical forceps. But in rare instances such as the one mentioned here it may prove to be a very safe and useful approach if kept in mind as an option.

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