

## Spontaneous Expulsion of Degenerated Uterine Fibroid Following Delivery, a Rare Case Presentation

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### Abstract

The most frequent benign tumors in females are fibroids or leiomyomata. These tumors arise usually from the smooth muscle layer of the uterus. Their size can range from as small as a seed to exceptionally huge. Our patient is a 36 years old lady, P1 with previous SVD who was booked at 12 weeks of pregnancy and was known to have a fibroid uterus. She had followed regularly in pregnancy, had an unremarkable pregnancy and was delivered by Kiwi cup. She presents with irregular bleeding per vagina at 4 weeks after delivery. She was known to have a uterine fibroid before pregnancy. We did not have more details as she does not have previous ultrasound reports that were done outside the country. The patient reported abdominal pain and passage of clots off and on along with pinkish vaginal discharge for 1 week. On speculum examination there was a smooth round-shaped mass protruding out the cervix into the vagina. The vagina was almost filled with the protruding pinkish pale mass that was freely mobile and non-tender to touch. She was admitted to the ward. The plan of management was discussed with her. Her bloods and vaginal swab were taken, she was given antibiotic cover and was kept on surgical list for the next day after 24 hours of antibiotic cover. She had examination under anaesthesia and partial removal of the mass and sample was sent for histology. She stayed in hospital for two days, remained stable and was discharged on the third day in stable condition. Histology showed a fibroid (leiomyoma) with no evidence of malignancy. Her repeat USG pelvis after six weeks showed myoma regression in size to 20 mm x 22 mm x 22 mm.

**Keywords:** Uterine Fibroid; Leiomyoma; Cervix; Vagina

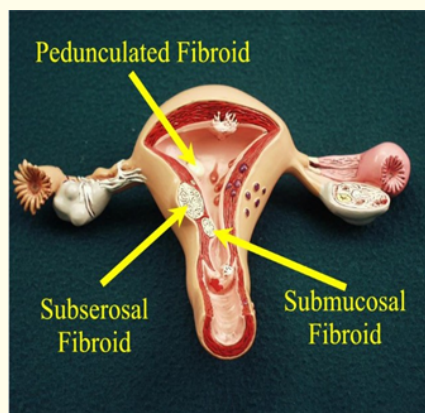


Figure 1

### Background

This rare case of complication of uterine fibroid, as a cause of irregular bleeding per vagina (PV), discharge and pain lower abdomen and has valuable educational interest because of its nature of presentation: a fibroid uterus being prolapsed into vagina in a symptomatic patient during puerperium. Uterine fibroids and bleeding per vagina are common. That is why other more serious causes of abnormal PV bleeding or pelvic mass can often co-exist and need to be excluded. Uterine fibroids are benign. They occur in 1 in 3 women aged 30 years and above and become more common as women approach menopause.

Even though uterine fibroids are commonly associated with PV bleeding, it is rare that patient with known fibroid present with vaginal expulsion after delivery. There was no similar published reports identified by the literature search. Thus, this is a rare case of vaginal bleeding, discharge and pain lower abdomen in women of reproductive age.

### Case Presentation

A 36 years old lady attended the booking clinic at 13+3 weeks of pregnancy and gave history of fibroid uterus. Her booking scan showed a singleton pregnancy corresponding to gestation and a large intramural fibroid of 11 cm x 11 cm x 11 cm at right upper fundus that was confirmed in early pregnancy unit at 16 weeks pregnancy. The placenta appeared to be implanted over the fibroid in fundus. Her booking BMI was 26.5 and she a normal anomaly scan. She had frequent regular ANC.

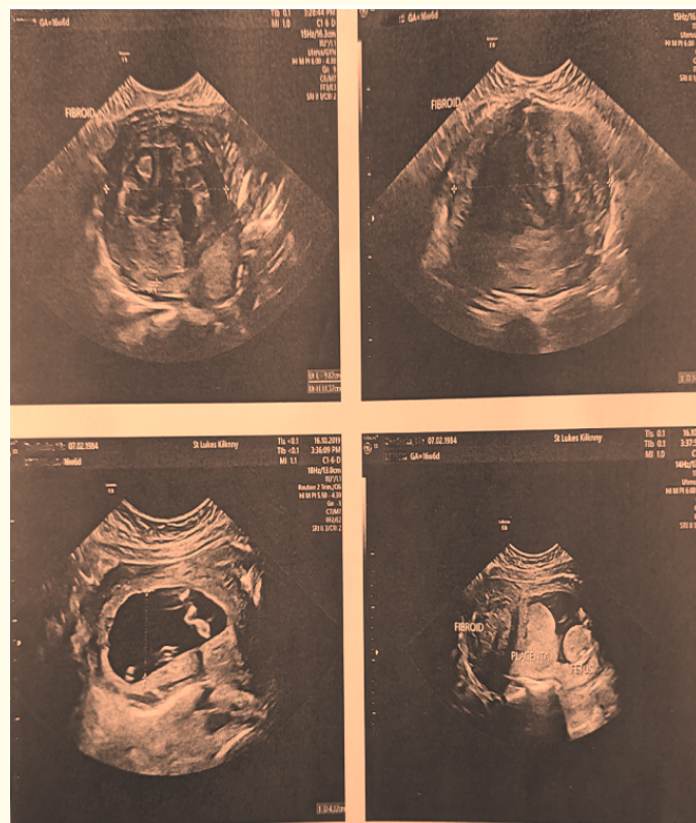


Figure 2

The patient was explained about the risks associated with fibroid in pregnancy including risk of miscarriage, preterm delivery, ante partum haemorrhage, intrauterine growth restriction, red degeneration of fibroid and postpartum haemorrhage, need for blood transfusion. The fibroid remained the same size throughout pregnancy. She was given 2 doses of steroid injection for fetal lung maturity at 32 weeks. She was given oral iron throughout pregnancy and her haemoglobin level was checked at intervals that remained normal. At 36 weeks gestation, the plan of delivery was discussed with patient in detail. The plan was for spontaneous labour and delivery.

At 38+4 weeks gestation, she started having mild hypertension, did not need any medication and her PET bloods were normal. After informed consent, she was given a sweep, had an unfavourable bishop score. She was seen back in ANC at 39 weeks when her blood raised to 157/101 mmhg, urine proteins were negative and she c/o headache and blurring of vision. She was admitted for BP monitoring, CTG and induction of labour. Her BP remained mild and she was not started on antihypertensive medications, there was 2+ of urine proteins, PET bloods were normal. She was induced the next day with process. After 24 hours, she was transferred to labour ward, AROM was done. She progressed well in labour, the partogram was normal. The plan was discussed with her at start of labour about active management of third stage of labour, 2 units of blood were cross matched and kept ready. She opted for epidural analgesia and it was cited in first stage of labour. She had kiwi delivery with episiotomy because of repeated variable decelerations in second stage of labour. Active management of third stage was done, 40 units of oxytocin infusion was given prophylactically for 4 hours after delivery and misoprostol 800 mcg per rectal was given. The outcome was a baby boy with normal apgar score and cord PH, weight was 3460 gms. She was discharge home on second day in stable condition, was given analgesia for use at home.

She was followed up at 6 weeks after delivery, she complained of abdominal pain, vaginal bleeding on and off with some clots and excessive vaginal discharge, on inquiring she stated to have feeling of fever sometimes with chills. On examination, uterus was measuring upto umbilicus and was nontender. On speculum examination, there was large mass of yellowish tissue protruding out of cervix, on traction was fixed inside the uterine cavity, not reduceable and mild tenderness on deep palpation. Our provisional diagnosis was prolapsed necrotic fibroid or retained placental part. The vaginal swab was taken and sent for culture. She was explained and plan was made with her for admission, antibiotic cover, blood biochemistry, cross match 2 units of blood and for Examination under anaesthesia and uterine exploration the next day in theatre with full preparation. The consent was taken for possible laparotomy with consent for balloon tamponade versus hysterectomy if needed. Her abdominal USG showed enlarged uterus with intramural myoma with mixed heterogeneous echogenicity measuring 71 mm x 75 mm x 74 mm, difficult to see endometrial cavity and not possible to exclude RPOCs due to acoustic shadowing.



**Figure 3**

Next day in theatre, on EUA findings were large mass of tissue was protruding from cervix with fundal extension and attachment possibly degenerated fibroid. The prolapsed part was avulsed and sent for histopathology. There was no active bleeding. Postoperatively, she was continued on antibiotics for 1 week, she remained stable and was discharge home after 2 days. The histology report showed 'Infrected Leiomyoma'.



Figure 4

She had a repeat USG after six weeks again that showed that uterine shape and overall normal morphology, uterus measuring 94 mm x 69 mm x 62 mm, no obvious myoma was seen, there was possible small intramural myoma which appears slightly bright possibly becoming calcified measuring 20 mm x 22 mm x 22 mm. Both ovaries appear normal, normal Pouch of Douglas.

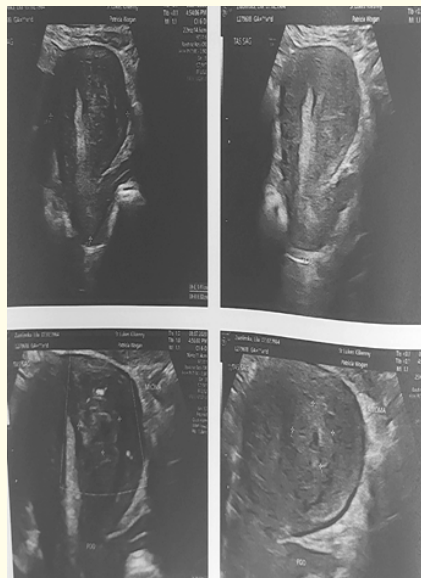


Figure 5

## Discussion

Fibroids are common, benign smooth muscle tumours originating from uterine myometrial cells. They are estimated to affect 40 - 80% of women by age 50 years [1,2]. Fibroids are noncancerous tumors that grow on or in the muscular walls of the uterus. While fibroids are non-cancerous, they cause uncomfortable and often painful symptoms and can lead to infertility. If the fibroids aggressively grow, they can degenerate, causing significant pain to the patient. They are living tissue, requiring oxygen and nutrients to survive and grow, supplied by blood vessels in an around the uterus. When fibroids become too large, the blood vessels supplying the blood are no longer able to provide enough sustenance to meet the needs of the fibroid. When this happens, the cells of the fibroid begin to die in a process called degeneration. Uterine fibroid degeneration occurs when a fibroid outgrows its limited blood supply. When the connecting blood vessels cannot provide enough oxygen to a fibroid, its cells begin to die, or degenerate. When a fibroid degenerates, it shrinks back to a smaller size that its blood supply can support.

For some women, a degenerating fibroid is what first draws attention to their fibroids. Common symptoms of fibroid degeneration include:

- Acute abdominal pain lasting a few days to a few weeks
- Swelling of the abdomen
- Fever in addition to other symptoms
- Bleeding during pregnancy, resulting from a type of degeneration called necrobiosis.

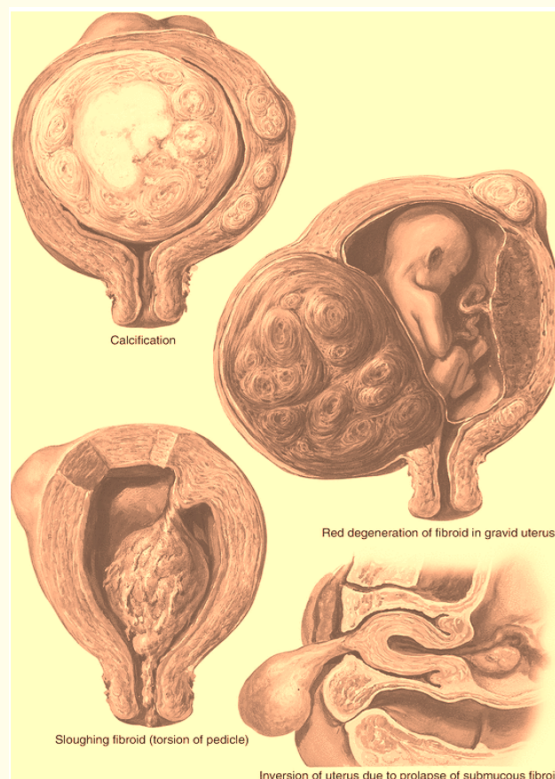


Figure 6



Uterine artery embolisation is a well-established treatment for uterine fibroids. Embolisation of blood supply to the tumour triggers fibroid degeneration, with a reduction in vascularity, followed by ischaemia and degeneration. The necrotic fibroid tissue is either reabsorbed over time, or transvaginal expulsion occurs [3-9]. Expulsion following uterine artery embolisation has been described in many case studies and is increasingly recognised as a favourable outcome rather than a complication of the procedure [9-11]. This case is unusual in that our patient experienced degeneration and expulsion spontaneously without embolisation.

There is one documented case of a submucosal cervical fibroid sloughing spontaneously following elective Caesarean delivery at 37 weeks gestation [11]. It is speculated that the conditions of pregnancy and delivery mimic those conditions present following uterine artery embolisation (namely reduced perfusion, uterine contraction, and endometrial sparseness) leading to a sloughing effect [11]. To the best of our knowledge, there is no documented case of an intrauterine fibroid undergoing this spontaneous process in association with labour or delivery, as in this case study. It is possible this process was triggered by rapid hormonal change and mechanical effects of induction of labour.

### Conclusion

An atypical presentation of the fibroid uterus is often confusing for the clinicians. Fibroids should be considered in young women who present with complaints of abdominal pain and pelvic mass. The plan of management of uterine fibroids in this age group should include the surgical procedures with the special objective to preserve fertility of young female patient. Precise analysis of the etiology of uterine fibroids in this age group is highly significant for future counseling and proper management of the patients.

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