Case Report

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Spontaneous Transformation of Intramural Myoma into Peduncle During Cesarean Section in a 33-year Woman: A Case Report

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Citation Yazdi Z, Montazeri S.M.H. Spontaneous Transformation of Intramural Myoma into Peduncle During Cesarean Section in a 33-year Woman: A Case Report. Case Reports in Clinical Practice. 2023; 8(1):29-33.

Running Title The Transformation of Intramural Myoma into Peduncles

Article info:
Received: 03 Jan 2023
Revised: 18 Jan 2023
Accepted: 02 Feb 2023

Keywords:
Myoma; Uterine myomectomy; Cesaren section; Pregnancy

ABSTRACT

We report a 33 years multipara pregnant woman who presented with vaginal bleeding due to intramural myoma and preeclampsia. After cesarean section, the myoma changed to the peduncle type and entered the internal space from the inner thickness of the uterus. This infrequent phenomenon made it easier to operate and remove the myoma within a few hours after the cesarean section. Finally, the mother and baby were discharged from the hospital safely after a few days.

Introduction:

Uterine myomas are benign masses of muscle tissue that can cause morbidity in women. (1) They are classified as submucosal, intramural and sub-serosal depending on their location in the uterine tissue and can cause different symptoms such as uterine bleeding, pain, difficulty in urinating, constipation, and dyspareunia depending on the location, number, and type. They may have no clinical sign and symptom and may just may be seen on th imaging as incidental findings (2)
Prevalence of these benign tumors is about 70% to 80% among women in reproductive age. About 30% among this need serious treatment (3) Known risk factors for this disorder include age, black race, sex hormones, uterine infections, obesity, low physical activity, smoking, alcohol, and caffeine consumption (4) Diagnosis is mainly with clinical findings and initial evaluation is with ultrasound imaging (5)

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It is treated by surgeries such as myomectomy, hysterectomy, thermal ablation, arterial embolization, as well as non-surgical treatments with drugs such as hormone receptor modulators in patients, depending on the type of myoma and symptoms, willingness or unwillingness to become pregnant again and size and number of myomas. (6) Myomas can also cause complications during pregnancy. Of course, routine myomectomy during pregnancy or cesarean section is not recommended, but what has been done is with good prognosis (7)

In this report, we have introduced a patient with sizeable intramural myoma who went to the hospital urgently in the last weeks of pregnancy with bleeding, preeclampsia and abnormal non- stress fetal test, which led to a cesarean section close to delivery. Spontaneous transformation of intramural myoma into a peduncular type was seen in her second surgery

Case Presentation

A 33-year old woman, gravida 4 para 3, abortion 1 at 36 weeks of gestation presented to the hospital with mild vaginal bleeding (spotting) and decreased fetal movement. Other symptoms included positional headache. Her vital signs were systolic blood pressure of 130mmHG, a diastolic pressure of 80 mmHg, a respiratory rate of 19 beats per minute, a temperature of 36.5 ° Celsius, and a heart rate of 72 beats per minute.

On her medical history, she had anemia and preeclampsia during previous pregnancies. She also had a miscarriage with curettage. Both last deliveries were NVD and had no history of stillbirth, preterm delivery, or other delivery-related disorders. The patient did not have a chronic illness such as diabetes, chronic hypertension, cardiovascular problems, or thyroid dysfunction. She was taking no medication other than a routine pregnancy multivitamin supplement.

In the patient's initial blood test, creatinine, urea, liver enzymes, and bilirubin levels were normal, but in the urine test, +3 proteinuria was seen. An ultrasound performed on the patient at 36 weeks of gestation demonstrated low lying placenta, 50% abruption and a 15 cm in diameter intramural myoma. Also, the position of the fetus was cephalic. Fetal NST was unfavorable and basal fetal heart rate was markedly reduced. Thus, the patient underwent emergency cesarean section. (Figure 1) In the operating room and during cesarean section, the mother's blood pressure rose sharply, which was difficult to control. Due to absence of chronic hypertension and severe proteinuria in emergency tests, the diagnosis of preeclampsia was also confirmed. The patient's CBC test results and blood pressure chart at all stages are given in Table 1 and 2.

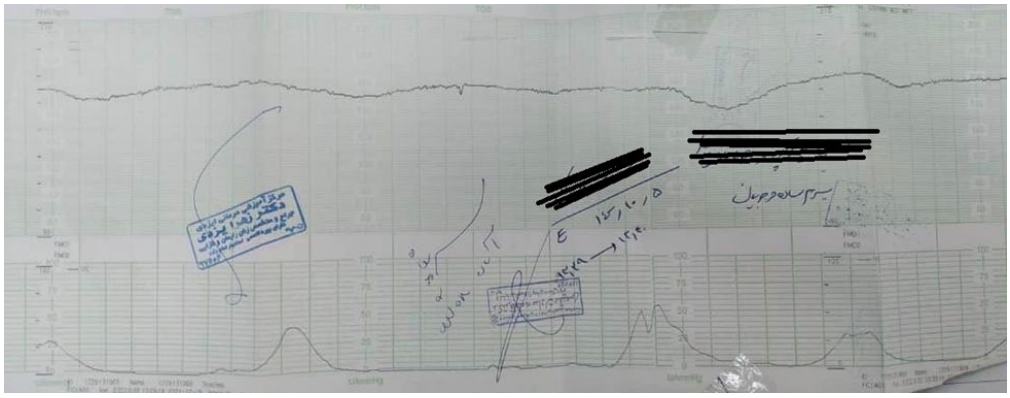

Figure 1: Part of the Non-reactive NST result (Note that black lines are the patient's identities that are covered).

Table 1: CBC laboratory data of the patient

Laboratory test/Units	At the time of referral to the emergency	before cesarean section	Before myomectomy	After Pack cell And FFP infusion	The first day later	The 2nd day later	The 3rd day later	Reference value
WBC	8300	10700	15200	12500	11100	10800	7500	4000-11000
HB	11.3	10.2	8	8.9	7.8	7.9	8.2	11-16
Plt	135	134	120	110	105	130	159	150-450*10^3

Table2: Blood pressure in the patient

Blood pressure Chart (Average)	At time of referral to the emergency	In operating room cesarean section	During cesarean section	After section	first day post-section	2nd day post-section	3rd day post-section Leaving the hospital
BP (mmHg)	130/100	150/100	170/110	145/100	145/95	130/100	120/89

The result of childbirth was an IUGR girl with Apgar score 4 /8 at five minutes. Also, the compressive mass of the myoma was palpable in the anterior wall of the uterus and 3 cm above the incision of the cesarean, which seemed to be in the third category of Figo, Thus, it was not possible to perform myomectomy simultaneously with cesarean section. After cesarean section, consistent blood reservation was performed for the patient. Oxytocin was prescribed in combination with normal saline and the antibiotics ampicillin, gentamicin, and clindamycin. The patient was also given 1000 micrograms of misoprostol as a prophylactic against possible bleeding.

Despite all preventive measures, the patient suffered significant bleeding from cervical dilatation of 5-6 cm and protrusion of a large myoma into the cervix three hours after cesarean section. Due to the deteriorating condition of the patient, she became candidate for emergency laparotomy. In surgery, the uterus was opened from a previous surgical incision of Cesarean section. An exciting event was the incision of the endometrium covering the myoma so that the myoma mass hung from the wall of the uterus with a 4 cm base at the end of the cavity. Myomectomy and initial repair were done. (Figure 2A, B)

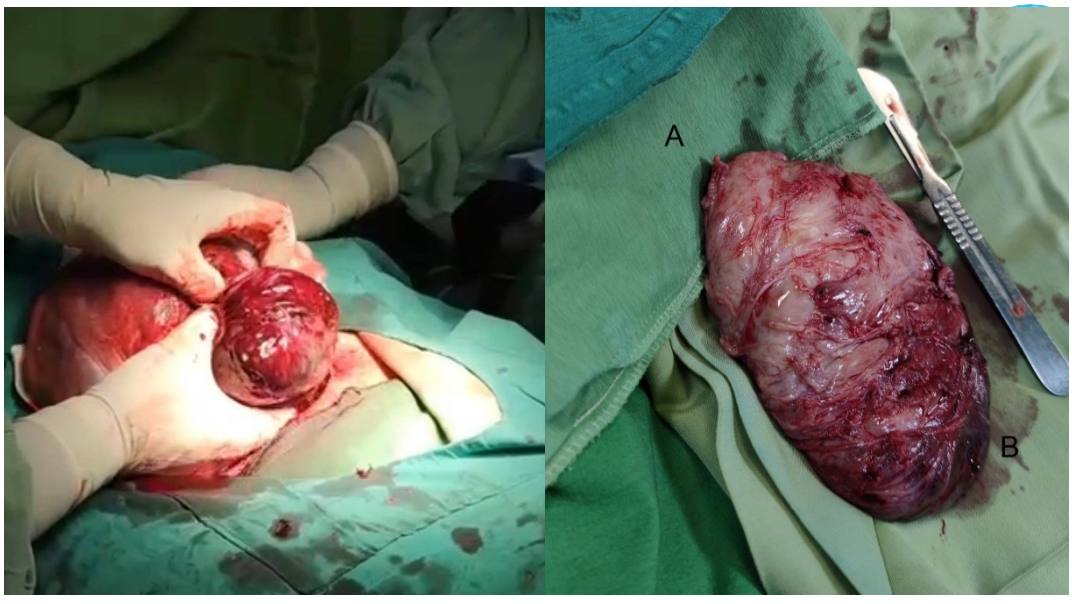

Figure 2A: left- Myoma hanging from the uterus during myomectomy surgery

Figure 2B: Right- protruding part from the cervix.

The cause of this phenomenon can provide a better understanding and create a new treatment solution in similar cases. Due to low hemoglobin, two units of pack cell and FFP were injected into the patient. The patient's condition stabilized and was monitored for three days. After relative stability of hemoglobin due to emergency cesarean section, preeclampsia, and preterm fetal, heparin was prescribed with a prophylactic dose to prevent venous thrombosis. Placenta and myoma samples were sent for pathology. The placenta was benign and did not have any abnormality, and Myoma diagnosis was confirmed without dysplasia. Finally, the mother was discharged from the hospital in good general condition with her baby after three days follow-up.

Discussion

We report a case of a young pregnant woman with preeclampsia who suffered from sudden bleeding due to intramural myoma in the last weeks of pregnancy. After cesarean section, the myoma changed to the pedunculated type and entered the internal space from the inner thickness of the uterus. Myomas in pregnancy are annoying and can cause complications such as early pregnancy bleeding, premature rupture of membranes and postpartum hemorrhage (8). Presence of a large myoma in our case also contributed to preeclampsia and turned this into a patient with complex management that needs two stages of surgery.

Haskins et al. reported a case of 39-yearold pregnant woman with vaginal spotting in early weeks of pregnancy due to 10 cm intramural leiomyoma and six months after a cesarean section went to the operating room for myomectomy. In hysterectomy, it was observed that the same myoma had become a pedunculated (9) Same happened in our case, except that just a few hours after the cesarean section, a very large intramural myoma became rooted and sagging with symptoms of bleeding. Nkwabong reported a young African woman with several intramural myomas measuring 6 to 9 cm in size. She became pregnant after one year. She had no problems with her pregnancy and gave vaginal delivery. A month later, she presented with symptoms of obstruction of the urinary tract. Observation was a large myoma, prolapsed, and twisted. Finally, myoma was re-twisted under general anesthesia with the vaginal root, and the patient recovered rapidly (10)

There are different surgical methods for treatment of uterine myomas. (11) In our patient, because she wanted to remain fertile, we did not conduct a hysterectomy, while changing the myoma type made the surgery easier. The transformation of the myoma type and pedunculation may occur in some cases especially shortly after delivery. Our hypothesis regarding etiology is severe contractions during pregnancy and delivery. Surgery for myomas is a choice today, but future treatments will make medication more important (12) According to our hypothesis, use of drugs that cause uterine contractions in intramural myomas can make myomectomy less invasive and simple by converting the form into pedunculated.

Conclusion:

In pregnant women with large intramural myomas, the form of myoma can change into pedunculated after delivery for unknown reasons or perhaps uterine contractions. This simplifies surgery and gives the patient a chance to eliminate the need for hysterectomies or complex myomectomies and even preserves fertility. Further studies on the cause of this phenomenon can help reveal surgical or pharmacological treatments for myomas.

Ethical Considerations

Compliance with ethical guidelines

The patient gave her informed written consent and provided her medical records to the research team with the permission and under the supervision of the rules of the University Ethics Committee and Declaration of helsinki for the publication of the case report.

Funding

This research did not receive any grant from funding agencies in the public, commercial, or non-profit sectors.

Conflict of interest

The authors declared no conflict of interest.

Acknowledgements

None

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