Reminder of important clinical lesson

Placenta accreta associated with submucosal fibroid polyp

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Summary

A 35-year-old para 1, whose child birth was 5 years ago, was on barrier contraception and safe period. She was diagnosed to have a small submucosal posterior wall fibroid when she planned for her second child now. She conceived spontaneously during the next cycle after consultation. Her first trimester ultrasonography revealed placental implantation on the fibroid. She developed severe pre-eclampsia at 32 weeks of pregnancy and suffered from uncontrolled hypertension and pulmonary oedema. Pregnancy was terminated at 33+4 weeks by elective lower segment caesarean section (LSCS) because of severe pre-eclampsia, pulmonary oedema and unfavourable cervix. At LSCS, placenta was found to be adherent to the pedunculated fibroid polyp which was removed by clamping, cutting and ligating the pedicle. Histopathological examination revealed placenta accreta and hyaline change of leiomyomatous polyp. Fetus was preterm, weighed 2.1 kg and survived.

BACKGROUND

Complications are greater in cases of submucosal pedunculated intrauterine fibroid polyps associated with pregnancy. Adherent placenta is to be expected in cases of submucosal fibroid of uterus when placenta is seen anterior to it on ultrasonogram. Posterior wall fibroids may not be visualised in advanced pregnancy.

It is easy to remove the fibroid polyp at lower segment caesarean section (LSCS) and prevent the complications of postpartum haemorrhage and inversion which may result in case of vaginal birth.

CASE PRESENTATION

A 35-year-old para 1 whose child birth was 5 years ago consulted for planning for second pregnancy. The couple were using male condom and safe period for contraception till she came for consultation. She gave history of menorrhagia (which did not make her anaemic) for the past 6 months. She was found to have a posterior wall fibroid of 3×2 cm size which appeared as submucosal in location on transvaginal ultrasound. She was advised to take folic acid tablet and was asked to return after 3 months if conception does not occur.

She conceived the following month after consultation. Her first trimester ultrasound showed posterior implantation with a single live fetus. The placenta was implanted posteriorly overlying the fibroid but there was an anechoic space between the placenta and the fibroid which was visualised up to second trimester (18 weeks scan) of pregnancy (figure 1). At 32 weeks, she developed severe pre-eclampsia and was hospitalised for the same at 32+3 days as her blood pressure (BP) was not controlled with tablet, -methyl Dopa given 500 mg 8 hourly on outpatient basis. She had severe pedal oedema extending up to knee joints. It was planned to manage her conservatively till 34 weeks of pregnancy and inj. Dexamethasone 6 mg was given intramuscularly 12 hourly for two doses for fetal lung maturity. She was also started on antioxidants, viz, vitamin A, vitamin C and vitamin E, along with sedatives. Five days

after admission, that is, at 33+1 day she developed cough and difficulty in breathing. Respiratory system examination revealed fine crepitations. BP was within 150/100 mm of Hg. She was given injection Morphine and tab. Lasix 40 mg 8 hourly with which she had partial relief from dyspnoea. After 2 days the BP was on the rise >160/100 mm Hg and her output started decreasing and a decision to terminate pregnancy was taken. She was decided for elective LSCS in view of pulmonary oedema and unfavourable cervix at 33+4 weeks of gestation. On the operation table, her BP was 170/105 mm of Hg and there were bilateral crepitations. Oxygen saturation was 89%, hence LSCS was done under general anaesthesia with careful fluid administration, and injection magnesium sulphate was started prophylactically soon after the surgery. At surgery, the lower segment was not well formed and the fetal head was high floating and hence delivered with the help of forceps. The liquor was meconium stained and the placenta could not be removed by controlled cord traction though signs of placental separation were present. On intrauterine examination, the placenta was found to be adherent to the posterior wall and hence it was attempted to remove manually. When it was being removed, the upper part of the placenta was found to be attached to the posterior uterine wall by a pedunculated firm structure which was clamped cut and ligated with No-1 vicryl. After removal it was recognised to be the fibroid polyp of 3×4 cm on which the placenta was implanted. Placenta along with polyp was sent for histopathological examination. Uterine incision was closed in two layers with No-1 vicryl, and tubectomy was performed as per the patient's wish. Fetus was preterm, alive with an Apgar of 6/10 at 1 min and 8/10 at 5 min and weighed 2.1 kg.

She was monitored in RICU (respiratory intensive care unit) and was on continuous oxygen by mask. She developed hypertensive crisis which was controlled by inj. Labetalol for 24 h. Magnesium sulphate was discontinued after 24 h. She was shifted out of RICU after 36 h when she maintained Sp O₂ of 96% with room air. She was started

Figure 1 Transabdominal sonogram showing submucosal fibroid with placental implantation in the right half and fetus with amniotic fluid in the left half.

on tab. Amlodipine 5 mg twice daily after the Physician's opinion. She was discharged on the 8th postoperative day along with the baby and advised to continue the antihypertensives for 2 weeks.

INVESTIGATIONS

Her complete haemogram performed after admission at 33 weeks of gestation was normal except for low platelet counts of $156\,000/\text{mm}^3$. Renal function, liver function tests and glucose tolerance test were normal. Fundus examination showed grade I hypertensive changes. Ultrasonography (USG) at 32+4 weeks showed biometry corresponding to 31 weeks with estimated fetal weight of 1.8 kg. Placenta was posterior and the fibroid could not be visualised properly at this time. Amniotic fluid index was 16 cm.

The histopathological examination of placenta with polyp was reported as leiomyomatous polyp with hyaline change and placenta accreta (figures 2 and 3).

TREATMENT

- Injection Dexamethasone for fetal lung maturity.
- Antihypertensives for pre-eclampsia.
- Prophylactic magnesium sulphate for imminent eclampsia.
- Inj. Morphine and Lasix for pulmonary oedema.
- LSCS polypectomy with bilateral tubectomy.

OUTCOME AND FOLLOW-UP

Normal at 6 weeks.

DISCUSSION

Fibroids are diagnosed in 4–5% of women undergoing prenatal ultrasound. Submucosal fibroids are the least common

type of uterine fibroids (5%) and the pedunculated type account for only 2.5%.¹ Uterine fibroid polyps (pedunculated submucous fibroids) can interfere with implantation causing infertility or they can cause miscarriage or preterm labour. The outcome of a pregnancy in a case of submucosal posterior wall fibroid is reported here.

The symptoms of submucous fibroids include abnormal uterine bleeding (most often menorrhagia, less commonly metrorrhagia), pain lower abdomen, dysmenorrhoea and increased vaginal discharge. Rarely they prolapse out of cervix into the vagina and occasionally cause inversion of uterus. This case was, however, asymptomatic except for mild menorrhagia (which did not make her anaemic). Hysteroscopic myomectomy is feasible and effective for submucous fibroids and it should be considered in women with intracavitary submucous fibroids suffering from infertility, pregnancy loss and abnormal uterine bleeding.² But hysteroscopic myomectomy is associated with significant complications like bleeding, perforation, burns, electrolyte imbalance, possibility of hysterectomy and even death. Data describing the fertility and pregnancy outcomes following hysteroscopic myomectomy is limited.³ A pregnancy rate of 60% was reported in patients with infertility after hysteroscopic myomectomy.⁴ In this case, hysteroscopic resection was not considered as she was asymptomatic. A prospective study which assessed the positional affect of fibroids on pregnancy rates revealed 43.3% pregnancy rate in patients with submucosal fibroids who underwent myomectomy compared to 27.2% in those who did not undergo surgery.⁵ The affect of submucosal fibroids may not be purely positional as it was found that polyps and leiomyomas produce excess glycodeilin, a glycoprotein, in the uterus which impairs fertilisation and implantation.⁶

Figure 2 Histopathological picture showing the smooth muscle fibres of fibroid polyp with hyalinisation in the right half and adherent villi and membranes in the left half.

Figure 3 High power picture showing the hyaline degeneration of the fibroid polyp.

Pregnancy has a variable and unpredictable effect on myoma growth, majority do not increase and in those that grow, the greatest growth usually occurs before 10 weeks of gestation.⁷ The pregnancy outcome differs from those who do not have fibroid only in the rate of caesarean section, which was significantly higher in those with fibroid uterus.⁸ Although most pregnancies are unaffected by fibroids, large submucosal and retroplacental fibroids seem to impart greater risk for complications including degeneration, abruptio placentae, preterm labour and delivery.⁹ This case did not suffer from abruptio placentae despite

pre-eclampsia, and the fibroid polyp underwent degeneration without significant growth. However, adherent placenta was the result because of its implantation on the fibroid polyp. Submucosal fibroids have long been recognised as one of the causes for placenta accreta as mentioned by Fox.¹⁰ Both hyaline degeneration and placenta accreta were evident in this case.

The sonographic appearance of myomas is generally characteristic but as they can undergo various kinds of degeneration, the sonographic appearance can vary mimicking other cystic conditions. MRI is more accurate and

specific in diagnosing the various changes that occur in a fibroid.¹¹ The fibroid could not be visualised during the later half of pregnancy by USG in this case because of its posterior location and its small size and most probably because of hyaline degenerative change reported on histopathological examination. MRI would have been useful in delineating the fibroid in such a situation.

The pedicle could be easily felt on the posterior wall of the upper segment and clamped and ligated at LSCS in this case. If she had a vaginal delivery, retained placenta with primary postpartum haemorrhage (PPH) would have been the result as there is partial adherence of placenta, that is, on the polyp, and attempts at manual removal would not be successful because of pedunculated polyp and she would have required a laparotomy for the same. A case of pedunculated submucosal myoma that prolapsed during 26 weeks of pregnancy causing preterm labour was reported to be successfully managed by vaginal myomectomy.¹² Postnatal complications of pedunculated uterine polyp include PPH, infection, necrosis, prolapse of the polyp and inversion of uterus if the polyp is large. A case of pedunculated submucosal fibroid of lower segment causing PPH is recently reported¹³ and two cases of infection and necrosis and prolapse were reported in older literature.¹⁴

This case illustrates the outcome of pregnancy when the placenta is implanted on the submucosal pedunculated

fibroid polyp. Placenta accreta and hyaline change of the fibroid polyp were the outcome. Postpartum haemorrhage and inversion of uterus were prevented in this case because of recognition and prompt action in removing the adherent placenta along with fibroid polyp at LSCS.

Competing interests None.

Patient consent Obtained.

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Learning points

- Placenta can get implanted on the pedunculated submucosal fibroid and can become morbidly adherent.
- Fibroid polyp can undergo degenerative change during pregnancy.
- Posterior submucous fibroids may not be visualised during late pregnancy.
- Pedunculated submucosal fibroids can safely be removed at caesarean section.

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