

SUCCESSFUL CONCEPTION AND FIRST PREGNANCY IN A 28-YEAR-OLD WOMAN WITH CERVICAL UTERINE MYOMA AND TOTAL PLACENTA PREVIA: A CASE REPORT

*¹Ida Bagus Agung Brahmananda Krisna Putra, ² I Komang Juni Arthawan, ² AA Gde Marvy Khrisna Pranamartha, ² I Gede Sudiarta, ² Putu Ayu Novianitri, ² I kadek Pramarta, ² I Nym Gde Dwipa Mahardikha, ² Suryantha Adisastra

¹*General Practitioner, Klungkung Regional General Hospital, Bali, Indonesia*

²*Obstetric and Gynaecology Consultant, Klungkung Regional General Hospital, Bali, Indonesia*

Corresponding Author:

gusagungkrisna96@gmail.com

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ABSTRACT

Background: Placenta previa is a major pregnancy complication associated with life-threatening hemorrhage. Cervical Uterine Myomas, benign smooth muscle tumors, increase the risk of placenta previa by two to three times, contributing to adverse pregnancy outcomes such as infection, urinary retention, preterm labor, and bleeding. Understanding the interaction between Cervical Uterine Myomas and placenta previa is crucial for optimizing care in high-risk pregnancies and improving maternal and fetal outcomes.

Case Description: A 28-year-old primigravida (G1P0A0) patient was diagnosed with a breech presentation, Cervical Uterine Myoma, and total placenta previa at Klungkung Regional Hospital. The patient had a regular menstrual cycle and no history of comorbid conditions. The patient's management includes hospitalization with strict bed rest, followed by a scheduled elective cesarean section (CS). Fluid therapy will be administered using Ringer's lactate, and preoperative prophylactic antibiotics will be provided.

Discussion: Cervical Uterine Myoma, particularly cervical myomas, can significantly impact pregnancy outcomes, with a prevalence of 1.6% to 10.7%. These fibroids, particularly large ones, increase the risk of placenta previa, a condition where the placenta partially or completely covers the cervix. The combination presents significant risks for both the obstetrician and the patient, including urinary retention, myoma degeneration, preterm labor, obstructed labor, and postpartum hemorrhage. Careful surgical planning and management strategies are crucial.

Conclusion: A 28-year-old primigravida with breech presentation, Cervical Uterine Myoma, and total placenta previa was admitted after three days of abdominal pain and scheduled for an elective cesarean section at 36 weeks. The cesarean successfully delivered a healthy male infant, and a 10 x 10 cm cervical myoma was identified without complications. Postoperatively, the patient had a normal recovery with well-healing surgical wounds and was discharged in stable condition with appropriate medications.

KEYWORD: Placenta previa, primigravida, Cervical Uterine Myom

INTRODUCTION

Obstetric hemorrhage remains one of the leading causes of maternal morbidity and mortality worldwide, with placenta previa being a significant contributor to life-threatening bleeding, especially in the third trimester. Placenta previa accounts for approximately 20% of antepartum hemorrhage cases and occurs when the placenta abnormally implants over the lower uterine segment, partially or completely covering the internal cervical os.¹ Its global prevalence is estimated to be around 5.2 per 1,000 pregnancies, though in some regions, such as Asia, this rate rises to as high as 12.2 per 1,000 pregnancies.² This condition poses severe risks to both maternal and fetal health, requiring vigilant monitoring and management as pregnancy progresses.³

Cervical Uterine Myomas, benign tumors of the smooth muscle in the uterus, are considered a potential risk factor for abnormal placental implantation, including placenta previa. Research indicates that the presence of Cervical Uterine Myomas increases the risk of developing placenta previa by two to three times compared to women without myomas.^{4,5} Although Cervical Uterine Myomas are not exceedingly common during pregnancy, they can significantly affect their course and outcomes.⁶ Complications arising from Cervical Uterine Myomas during pregnancy include infection, urinary retention, preterm labor, obstructed labor, and an increased risk of bleeding both during and after delivery.⁷ However, the precise role of Cervical Uterine Myomas in the development of placenta previa remains unclear, necessitating further research to explore this relationship.

Cervical Uterine Myomas are detected in up to 10.7% of pregnant women, with prevalence increasing among those who postpone childbirth until later in life.⁸ These fibroids may affect pregnancy outcomes by altering uterine contractility and blood flow, particularly when the placenta implants near a fibroid nodule.⁹ This can result in complications such as miscarriage, preterm labor, and postpartum hemorrhage.¹⁰ However, not all pregnancies complicated by Cervical Uterine Myomas lead to adverse outcomes. In this case report, we discuss a rare and complex case of a 28-year-old woman with a large central cervical myoma and total placenta previa, which presented significant challenges in managing her pregnancy. This case underscores the importance of understanding the interactions between Cervical Uterine Myomas and placenta previa to optimize care in similarly high-risk pregnancy.

CASE REPORT

A 28-year-old primigravida (G1P0A0) presented to the emergency department of Klungkung Regional Hospital with complaints of sudden onset cramping abdominal pain, which had persisted for three days. The patient, who was diagnosed with a breech presentation, Cervical Uterine Myoma, and total placenta previa, reported no accompanying symptoms such as leakage of clear fluid during urination. She had previously attended the hospital's outpatient clinic on August 29, 2024, where an elective cesarean section (CS) was scheduled for September 2, 2024. The patient's last menstrual period began on December 22, 2023. Her appetite and fluid intake were within normal limits, and she denied any additional symptoms.

The patient reported that she experienced menarche at the age of 13. Prior to her current condition, she had a regular menstrual cycle, occurring every 30 days and lasting for 4 days. During her periods, she typically used three 29 cm sanitary pads per day.

The patient is married, and this is her first pregnancy. She has no history of previous illnesses, including hypertension, diabetes mellitus, heart disease, asthma, or any other comorbid conditions. Similarly, there is no significant family history of these conditions. The patient has never undergone surgery and has no known allergies. Her nutritional status remains within normal limits, indicating no concerns regarding her dietary intake.

Upon general examination, the patient appeared to be in a moderately ill condition, with a Glasgow Coma Scale (GCS) score of E4, V5, M6. Her vital signs were stable, with a blood pressure of 110/70 mmHg, a pulse rate of 65 beats per minute, and an axillary temperature of 36.6°C. Oxygen saturation was 98%, and her respiratory rate was 20 breaths per minute. The patient weighed 50 kg and stood 160 cm tall. The fetal heart rate (DJJ) was recorded at 144 beats per minute, indicating a healthy fetal status.

On general physical examination, the head revealed no signs of anemia in the conjunctiva. The nose showed no signs of bleeding, but the lips appeared pale, and the oral mucosa was also pale, with no atrophy of the tongue papillae. Examination of the chest revealed that the ictus cordis was not visible upon inspection, but it was palpable at the 5th intercostal space along the left midclavicular line. The heart's borders were normal on percussion, and normal heart sounds were heard upon auscultation. In the lung area, inspection showed no intercostal retraction. Palpation revealed symmetrical tactile fremitus, symmetrical focal fremitus, and symmetrical chest wall movement. Percussion produced a resonant sound throughout the lung fields, and normal lung sounds were heard upon auscultation. The abdominal findings corresponded with the patient's gynecological status, which will be detailed later. The upper and lower extremities showed no signs of pallor, with normal skin appearance.

On obstetric examination of the abdominal region:

- Inspection: No surgical scars were observed.
- Auscultation: Normal bowel sounds were present, and the fetal heart rate (DJJ) was between 144 and 147 beats per minute.
- Palpation: The uterine fundal height (TFU) was measured at 36 cm, located 3 finger widths below the midline. There was no abdominal tenderness, distention, or uterine contractions (His) noted.

On Leopold's examination:

- Leopold I: A firm structure was palpated, consistent with the fetal head.
- Leopold II: A broad, smooth area was felt along the right side, suggesting the fetal back.
- Leopold III: A soft structure was identified, indicating the fetal buttocks.
- Leopold IV: The lowest part of the fetus had not yet engaged in the pelvic inlet (PAP).

On vaginal examination, the cervix was closed with no dilation observed.

Laboratory Result

2 nd September 2024	Result	Normal Value
Hemoglobin	10.8 g/dl	10.8 – 16.5
Leukocyte	28,400/mm ³	3,500 – 10,000
Erythrocyte	3.5 juta/uL	3.5 – 5.5
Hematocrit	33.4%	35 - 55
Thrombocyte	337,000/mm ³	150,000 – 400,000
Basophil	0.4%	0 - 1
Eosinophil	0.03%	2 - 4
Neutrophil	89%	50 - 70
Lymphocyte	7.5%	25 - 40
Monocyte	3.5%	2 - 8

Abdominal Ultrasound (30th August 2024)



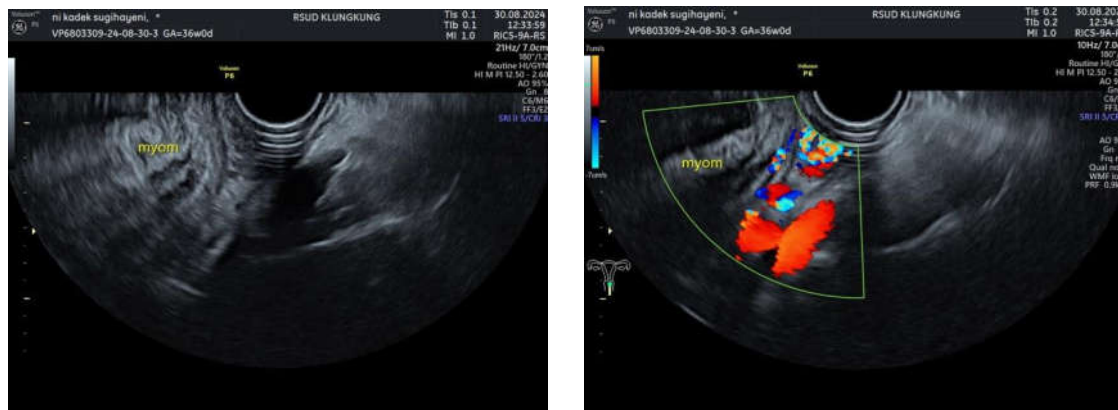


Figure 1. Preoperative abdominal ultrasound images were obtained for evaluation

Following a comprehensive evaluation, including the patient's history, physical examination, and relevant diagnostic tests, the patient was diagnosed with a first pregnancy (G1P0000) at 36 weeks of gestation. The diagnosis included an intrauterine breech presentation, Cervical Uterine Myoma, and total placenta previa.

The planned management for this patient includes hospitalization with strict bed rest, followed by a scheduled elective cesarean section (CS). Fluid therapy will be administered using Ringer's lactate at a rate of 20 drops per minute. Additionally, preoperative prophylactic antibiotics will be provided, with cefotaxime 2 grams administered once daily to minimize the risk of infection.

OPERATION RESULT (2ND SEPTEMBER 2024)

Aseptic techniques were employed throughout the procedure, and the operating field was meticulously draped with sterile drapes. A midline incision was made and deepened until the peritoneum was penetrated, allowing access to the gravid uterus, which was noted to contain a myoma in the lower segment. The corporeal incision was then performed, revealing the placenta; upon penetration of the placenta, a healthy baby boy was delivered, demonstrating good respiratory effort with audible crying and normal anal patency.

Following the delivery, the placenta was expelled intact, and the uterus was gently cleaned with sterile gauze. Upon examination, a cervical myoma measuring 10 x 10 cm was identified. The uterine incision was closed in two layers using a running suture technique with monofilament thread. Active bleeding was evaluated and found to be absent. The abdominal cavity was irrigated with normal saline, which returned clear.

The abdominal layers were then closed sequentially, and the surgical wound was dressed with Sufratulle and sterile Hypafix gauze. The operation was successfully completed without complications.

Follow-Up

29th August, 2024

Subjective: The patient is in her first pregnancy and currently reports abdominal cramping. She indicates that fetal movements are present and active.

Objective: The fundal height measures 34 cm, with the fetal presentation having engaged in the pelvic inlet. The fetal heart rate is noted at 144 beats per minute, with the fetus in a good condition. Anterior placenta and Cervical Uterine Myoma are present. The patient is alert and oriented, with a general condition assessed as good. Nutritional status is also adequate. Vital signs are as follows: Glasgow Coma Scale (E4, V5, M6), blood pressure 124/65 mmHg, respiratory rate 20 breaths per minute, pulse 80 beats per minute, and temperature 36.6°C. Weight is recorded at 77.3 kg and height at 158 cm.

Assessment: The patient is classified as a high-risk pregnancy due to the presence of placenta previa and Cervical Uterine Myoma.

Plan: An elective cesarean section is scheduled for September 2, 2024. The patient will also receive Adalat Oros SR 30 mg, to be taken orally once daily.

30th August, 2024

Subjective: The patient has no complaints as she prepares for her scheduled surgery on September 2, 2024.

Objective: The fundal height measures 34 cm, and the fetal presentation has engaged in the pelvic inlet. The fetal heart rate is recorded at 144 beats per minute. The patient is alert and oriented, with a general condition assessed as good and nutritional status within normal limits. Vital signs are as follows: Glasgow Coma Scale (E4, V5, M6), blood pressure 125/72 mmHg, respiratory rate 20 breaths per minute, pulse 80 beats per minute, temperature 36.6°C, weight 77.0 kg, and height 158 cm.

Assessment: The patient is a first-time gravida (G1P0000) at 36-37 weeks of gestation with a transverse lie, placenta previa, and Cervical Uterine Myoma.

Plan: An elective cesarean section is scheduled for September 2, 2024. A consultation with anesthesiologist will be arranged, and the patient will be prescribed Adalat Oros SR 30 mg, to be taken orally once daily.

1st September, 2024

Subjective: The patient was received from the PONEK room, presenting as a first-time mother (G1P0000) at 36-37 weeks of gestation with a transverse fetal position, placenta previa, and uterine leiomyoma. The mother reported experiencing abdominal pain for the past three days, with no vaginal discharge. She noted good fetal movement.

Objective: On examination, the fundal height was measured at 36 cm, with the uterus palpated three fingerbreadths below the umbilicus. The fetal heart rate was recorded at 144 beats per minute, and no uterine contractions (His) were noted. The patient rated her pain as 2 on a scale of 10. Her general and nutritional conditions were assessed as good. Vital signs were as follows: Glasgow Coma Scale (E4, V5, M6), blood pressure 110/80 mmHg, respiratory rate 19 breaths per minute, pulse 87 beats per minute, weight 74.5 kg, height 158 cm, temperature 36.8°C, and oxygen saturation at 98%.

Assessment: The patient is a first-time gravida (G1P0000) at 36-37 weeks of gestation with a transverse position, placenta previa, and Cervical Uterine Myoma. She is scheduled for delivery via elective cesarean section.

Plan: An elective cesarean section is scheduled for September 2, 2024. The patient will receive Cefotaxime 1,000 mg intravenously, dosed at 1x2 grams for prophylactic antibiotic coverage.

2nd September, 2024

Subjective: The mother reports no complaints and confirms positive fetal movement.

Objective: There were no signs of uterine contractions (His), and the fetal heart rate was measured at 151 beats per minute. There was no vaginal discharge. The patient was alert and oriented, with a general condition assessed as good and nutritional status within normal limits. Vital signs recorded included a Glasgow Coma Scale of E4, V5, M6, blood pressure of 110/70 mmHg, respiratory rate of 19 breaths per minute, pulse of 89 beats per minute, temperature at 36.7°C, weight of 74.5 kg, height of 158 cm, and an axillary temperature of 36.7°C. Oxygen saturation was at 99%.

Assessment: The patient is a first-time gravida (G1P0000) at 36-37 weeks of gestation with a transverse fetal position, placenta previa, and Cervical Uterine Myoma. She is scheduled for delivery via elective cesarean section.

Plan: An elective cesarean section is planned for September 2, 2024. The patient will receive Cefotaxime 1,000 mg intravenously, dosed at 1x2 grams for prophylactic antibiotic coverage.

3rd September, 2024

Subjective: The patient reports experiencing pain at the surgical site and has noted the passage of flatus.

Objective: On examination, the fundal height is two fingerbreadths below the navel, and uterine contractions are present and functioning well. The surgical wound appears well-maintained. Vaginally, the patient has normal lochia. She is alert and oriented, with a general condition assessed as good and nutritional status within normal limits. Vital signs include a Glasgow Coma Scale score of E4, V5, M6, blood pressure of 110/80 mmHg, respiratory rate of 20 breaths per minute, pulse of 80 beats per minute, temperature at 36.7°C, axillary temperature at 36.7°C, and oxygen saturation at 98%.

Assessment: The patient underwent an elective cesarean section, resulting in a single live birth. She has placenta previa, and maternal care continues for transverse and oblique fetal positions, along with a diagnosis of unspecified uterine leiomyoma.

Plan: The patient is to be discharged with the following medications: Cefadroxil 500 mg capsules at a dosage of 2x500 mg, Methylethylergometrine 0.125 mg coated tablets at 3x1 tablet, Peinlos 400 mg/4 ml injection at 2x1 amp IV, Vitamin A 200,000 IU as part of the DINKES program at a dosage of 1x1, Paracetamol 500 mg caplets at a dosage of 3x500 mg, and Iron Supplement Tablets with Folic Acid at a dosage of 2x1.



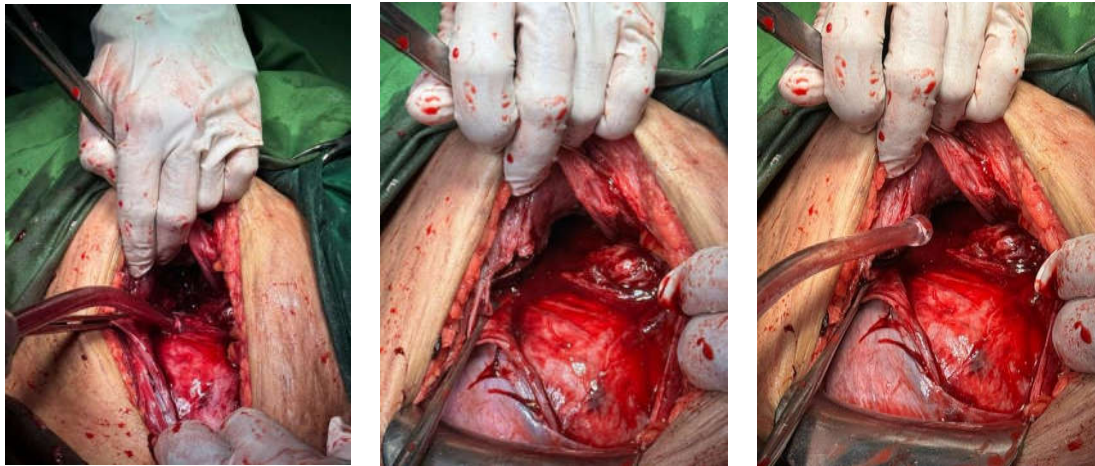


Figure 2. A compilation of images documenting the intra operation of the elective cesarean section.

DISCUSSION

The concurrence of Cervical Uterine Myoma during pregnancy, although uncommon, has a reported prevalence of 1.6% to 10.7%.¹¹ Among these, cervical myomas are particularly rare, representing less than 1% of all fibroids detected during pregnancy.⁶ These fibroids are generally asymptomatic but can significantly affect the course and outcome of pregnancy in certain cases.⁷ The literature on cervical fibroids in pregnancy is scarce, mostly comprising case reports and case series, which limits the depth of understanding regarding their clinical implications. Their infrequency in combination with pregnancy presents challenges in predicting and managing potential complications.

Research indicates that fibroids, particularly large Cervical Uterine Myomas, increase the risk of placenta previa, a condition where the placenta partially or completely covers the cervix.^{4,5,10,12} One study found that uterine fibroids of 5 cm or more elevate the risk of placenta previa by 3.53 times.¹³ However, the specific types of fibroids involved in such abnormal placentation are not well documented. The role of cervical myoma in contributing to placenta previa or other abnormal placental implantations remains largely speculative, with only a single case report documenting multiple cervical myoma complicating a pregnancy with placenta previa.¹⁴ This gap in research makes clinical decision-making more complex in these rare cases.

When Cervical Uterine Myoma coexists with placenta previa, the combination presents significant risks for the obstetrician and the patient. Complications include urinary retention due to myoma's pressure on the bladder, myoma degeneration, preterm labor, obstructed labor, and postpartum hemorrhage.⁷ The most alarming complication in such cases is massive hemorrhage during the peripartum period, especially if a cesarean section is required. Obstetric teams must manage these high-risk cases in tertiary care hospitals, equipped with intensive care facilities, blood product availability, and a multidisciplinary team. Vaginal delivery is usually not possible, particularly in cases with central placenta previa, and cesarean section poses unique challenges, as the Cervical Uterine Myoma may obstruct the incision site, increasing the risk of severe bleeding.¹⁵ Careful surgical planning and preparation for extensive hemorrhage are vital.

Management strategies for severe hemorrhage during cesarean section due to Cervical Uterine Myoma and placenta previa should follow a stepwise approach. Besides uterotonics, advanced techniques such as balloon tamponade, uterine artery ligation, or embolization of the internal iliac artery should be considered.¹⁶ Cesarean hysterectomy may be necessary in cases of uncontrolled bleeding or morbidly adherent placenta. The surgical team should prepare for the possibility of a hysterectomy preoperatively, especially if conservative methods fail to control the bleeding. Postoperative care is equally important, with patients requiring close monitoring in a high-dependency unit, due to the potential for massive blood transfusion and other complications.¹⁷

Finally, the decision to perform a myomectomy during a cesarean section, particularly in the presence of placenta previa, is highly contentious. The risk of hemorrhage and subsequent hysterectomy makes many obstetricians reluctant to remove Cervical Uterine Myoma during such procedures.⁷ However, some case reports suggest that myomectomy during cesarean section can be performed without major complications.¹⁸ In most situations, conservative management of the Cervical Uterine Myoma during cesarean is preferred, with plans for myomectomy, uterine artery embolization, or hysterectomy postponed until after delivery, depending on the patient's symptoms, fertility desires, and the Cervical Uterine Myoma location. This conservative approach minimizes the risk of complications while allowing future interventions when necessary.^{19,20}

SUMMARY

A 28-year-old primigravida, diagnosed with a breech presentation, Cervical Uterine Myoma, and total placenta previa, presented with three days of cramping abdominal pain. She had no prior significant medical history and was scheduled

for an elective cesarean section at 36 weeks of gestation. Upon hospital admission, her condition was stable, with no signs of uterine contractions or active labor. During the cesarean section, a healthy male infant was delivered after the placenta was penetrated. A 10 x 10 cm cervical myoma was also identified, but the surgery proceeded without complications. Postoperatively, the patient reported typical post-surgical pain and demonstrated good recovery, with normal uterine contractions and wound healing. She was discharged in good condition with appropriate medications for continued recovery.

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