SUCCENTURIATE LOBE OF PLACENTA WITH VASA PREVIA: A CASE REPORT OF PRENATAL DIAGNOSIS

Abraham Fessehaye Sium, MD[1], Menberu Moges Ayele MD[1], Wondimu GuduMD, MPH[1]

ABSTRACT

BACKGROUND: Succenturiate placenta is rarely diagnosed prenatally. When succenturiate lobes are present, they may be associated with vasa previa, which can cause dangerous fetal hemorrhage during delivery. Antenatal diagnosis is crucial to prevent fetal death and morbidity.

CASE PRESENTATION: A 34-year-old Gravida-III, Para-I, A-I mother underwent an elective cesarean section at 34 weeks of gestation due to vasa previa, resulting in a good fetal and maternal outcome. Diagnosis of vasa previa and succenturiate placenta was achieved using Doppler ultrasound.

CONCLUSION: Prenatal diagnosis of succenturiate placenta is essential to prevent fetal death and significant maternal morbidity, such as postpartum hemorrhage. Doppler ultrasound is crucial for achieving this goal.

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1 Department of Obstetrics and Gynecology St. Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia

INTRODUCTION

Antenatal diagnosis of succenturiate placenta is crucial because vessels connecting the main placenta with the succenturiate placenta may rupture during labor, potentially leading to fetal death. Additionally, retention of placental material can result in postpartum hemorrhage.[1] We report a case of succenturiate placenta diagnosed prenatally, for which an elective cesarean delivery was performed at 34 weeks of gestation.

CASE PRESENTATION

A 34-year-old Gravida-III, Para-I, A-I mother was admitted to the high-risk ward at 28 weeks of gestation (based on an ultrasound at 8+4 weeks) with a diagnosis of low placenta and early preterm pregnancy, pending exclusion of vasa previa for conservative management. An earlier anatomy scan at 25 weeks showed no anomalies but revealed a posterior low-lying placenta with a small anterior placental segment.

Following admission, dexamethasone was administered for fetal lung maturity, and conservative management with biweekly biophysical profiles and non-stress tests continued. After 5 weeks, at 33 weeks of gestation, an obstetric and Doppler ultrasound by a maternal-fetal medicine specialist documented vasa previa and a posterior bulk placenta connected to an anterior accessory lobe via blood vessels. A diagnosis of succenturiate placenta was suspected, and the decision was made to deliver the baby via elective cesarean section at 34 weeks of gestation. Cesarean delivery was performed as planned, resulting in a live 2325-gram male baby with Apgar scores of 7/10 and 8/10 at the first and fifth minutes, respectively. Examination of the placenta confirmed a succenturiate placenta with a posterior bulk and an anterior accessory lobe connected by a membrane with transverse blood vessels. The mother was discharged 3 days post-operatively with a healthy baby. Follow-up a week later showed no abnormalities and good wound healing.

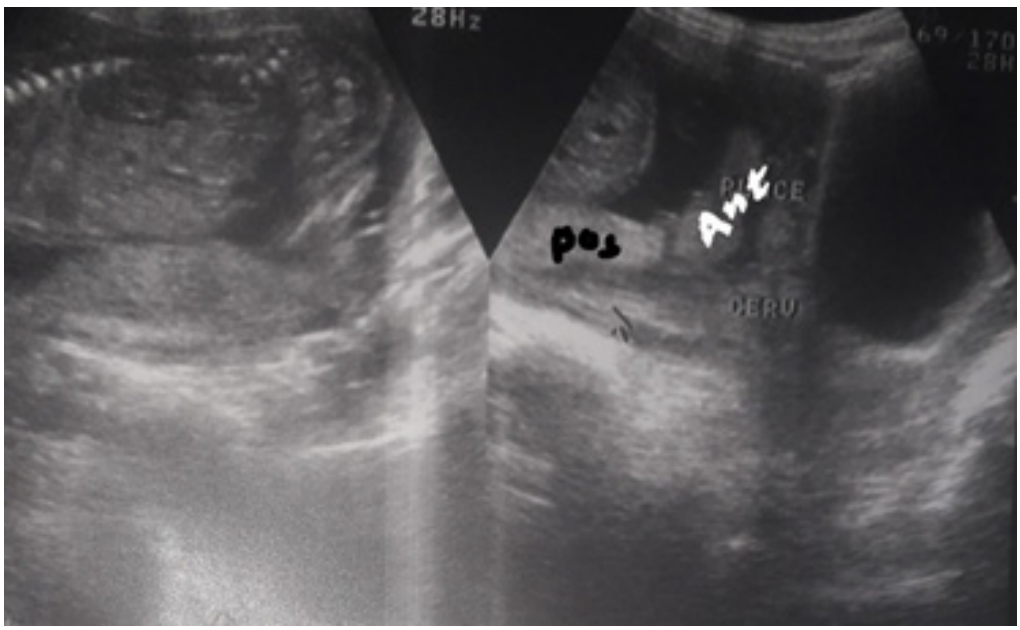

Figure 1. Ultrasound findings: Pos written in black represents the posterior bulk of the placenta and Ant written in white represents the accessory lobe of placenta.

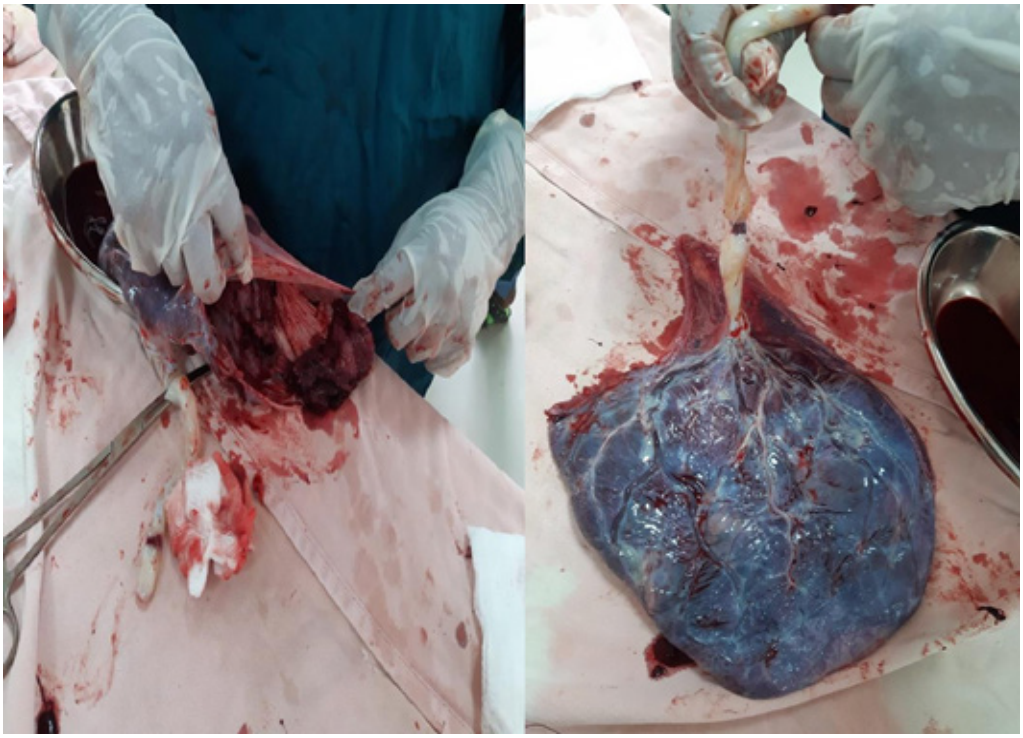

Figure 2: Placenta findings at delivery: a succenturiate placenta with a posterior bulk and an anterior accessory lobe connected to the bulk by a membrane with transverse blood vessels.

DISCUSSION

Succenturiate placenta is characterized by one or more small accessory lobes connected to the main placental body by vessels of fetal origin.[1] Advanced maternal age and in vitro fertilization are considered risk factors, likely due to the underlying progressive vascular damage associated with these conditions.[2,3] The diagnosis is typically made at birth, with very few prenatal diagnoses reported. Prenatal diagnosis requires meticulous ultrasound evaluation by an experienced sonographer, as vessels between the parts can mimic an amniotic band or uterine septum. Color Doppler imaging plays a crucial role in establishing the correct diagnosis, as evidenced in our case, sometimes supported by recent technologies like B-flow.[4,5] Transabdominal color Doppler imaging of floating vessels in the amniotic cavity, connecting the anterior placenta to the posterior lobe, and showing a venous type with its spectral waveform, is typical. This anomaly should be differentiated from a bipartite or bilobed placenta, which consists of two placentas of equal or near-equal size separated by a membrane.[6]

Some studies suggest that succenturiate lobes can cause sudden fetal death, especially if vessels cross the cervical os, leading to vasa previa.[7-10] In our case, vasa previa was diagnosed with Doppler ultrasound, and a safe elective cesarean section at 34 weeks of gestation resulted in a good outcome (the baby was delivered alive with a good Apgar score). Preparation was made for possible blood transfusion and postpartum hemorrhage, but there was no such complication..

CONCLUSIONS

Prenatal diagnosis of succenturiate placenta is essential to prevent fetal death and significant maternal morbidity (postpartum hemorrhage). Doppler ultrasound is essential for detecting vasa previa prenatally, enabling optimal conservative management and preparation for delivery.

DECLARATIONS

Ethics Approval and consent to participate

A written informed consent was obtained from the patient for publication of this case.

Availability of supporting data

All supporting documents are submitted along with the case report

Competing interests

No competing interests

Authors' contributions

AF and MM contributed the introduction and case. AFS, WG and MF prepared the discussion and conclusion part. The final manuscript was approved by all authors for publication.

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CORRESPONDING AUTHOR

Abraham Fessehaye Sium, M.D
St. Paul's Hospital millennium Medical College, Department of Obstetrics and Gynecology
Addis Ababa, Ethiopia.
Email: abrahamfessehaye4@gmail.com

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