EARLY DETECTION OF PLACENTA SUCCENTURIATE IN PREVENTING COMPLICATIONS: A CASE REPORT

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Abstract

Succenturiate placenta can be associated with vasa previa, retained placenta, post-partum hemorrhage and infection. Prior knowledge of presence of succenturiate placenta can be helpful to take quick and rational decisions during the labor. We present a case of placenta succenturiate suspected at 34+3 weeks of gestation using findings from ultrasonography.

Introduction:

Succenturiate placenta exists as a morphological variation of placenta in which one or more accessory lobes of placenta known as succenturiate lobes are present. In order to be identified as a succenturiate placenta morphologically, the accessory lobe should be connected to the main lobe of the placenta by fetal blood vessels [1–3] Female above 35 years of age, diabetic mothers and the females who have adopted In Vitro Fertilization (IVF) have greater risk of developing succenturiate placenta.[1,3,4] These risk factors are linked with progressive vascular damage of placenta which could be the probable mechanism responsible for the abnormality of placenta [1]

Placental abnormality is a common cause of perinatal death. [1] Vasa previa which is the commonest complication associated with presence of succenturiate placenta has a fetal mortality rate of 33% to 100%[4] Such pregnancies are also often complicated with fetal hemorrhage as a result of placenta previa.[2,3] 2% of low-risk pregnancy require caesarian section after the onset of labor because of presence of succenturiate lobe of placenta.[1] Accessory lobe along with the connecting blood vessels can also be retained even after delivery causing post-partum hemorrhage and infection.[1,3–8]

Complications in pregnancy with succenturiate placenta are mostly manageable by obstetricians when the condition is known beforehand. It can be suspected by regular ultrasonography. The result can be useful to guide the obstetrician to stay alert till the expulsion of both lobes and hence prevent post-partum hemorrhage and infection. However, succenturiate placenta is a rare condition whose accurate detection by ultrasonography during antenatal examination is challenging. [1] Therefore it has mostly been detected and reported retrospectively. [5]

Case report:

Ultrasonographic examination of a 30 years female gravida 2, para 1 with no history of diabetes mellitus and hypertension, confirmed a live intrauterine fetus at 34-35 week of gestation on cephalic presentation confirming a singleton pregnancy. The fetus had an estimated weight of 2506 grams. The main lobe of

placenta was observed on the posterior wall of the uterus. A separate placental tissue along the upper anterior wall measuring was noted and suspected to be a succenturiate lobe measuring 12.2 cm X 8.1 cm X 2.3cm. The female had two previous obstetric scans; one at 8+3 weeks of gestation reporting a fetus of crown rump length of 19.3 mm and second anomaly scan at 21+6 weeks of gestation reporting normal findings.

At 37+2 weeks of gestation the female presented to the emergency department in end stage of labor. On monitoring, persistent fetal tachycardia was noted with fetal heart rate of 180-187 bpm. Considering the previous suspicion of presence of succenturiate placenta, Emergency Lower Segment Cesarean Section was done under sub arachnoid spinal block. A 3.180 kg infant was delivered with Apgar score of 7/10 at 1 minute and 8/10 at 5 minutes. On examination of placenta, presence of a bilobed placenta with an accessory lobe connected to the main lobe of placenta by fetal blood vessels was confirmed.

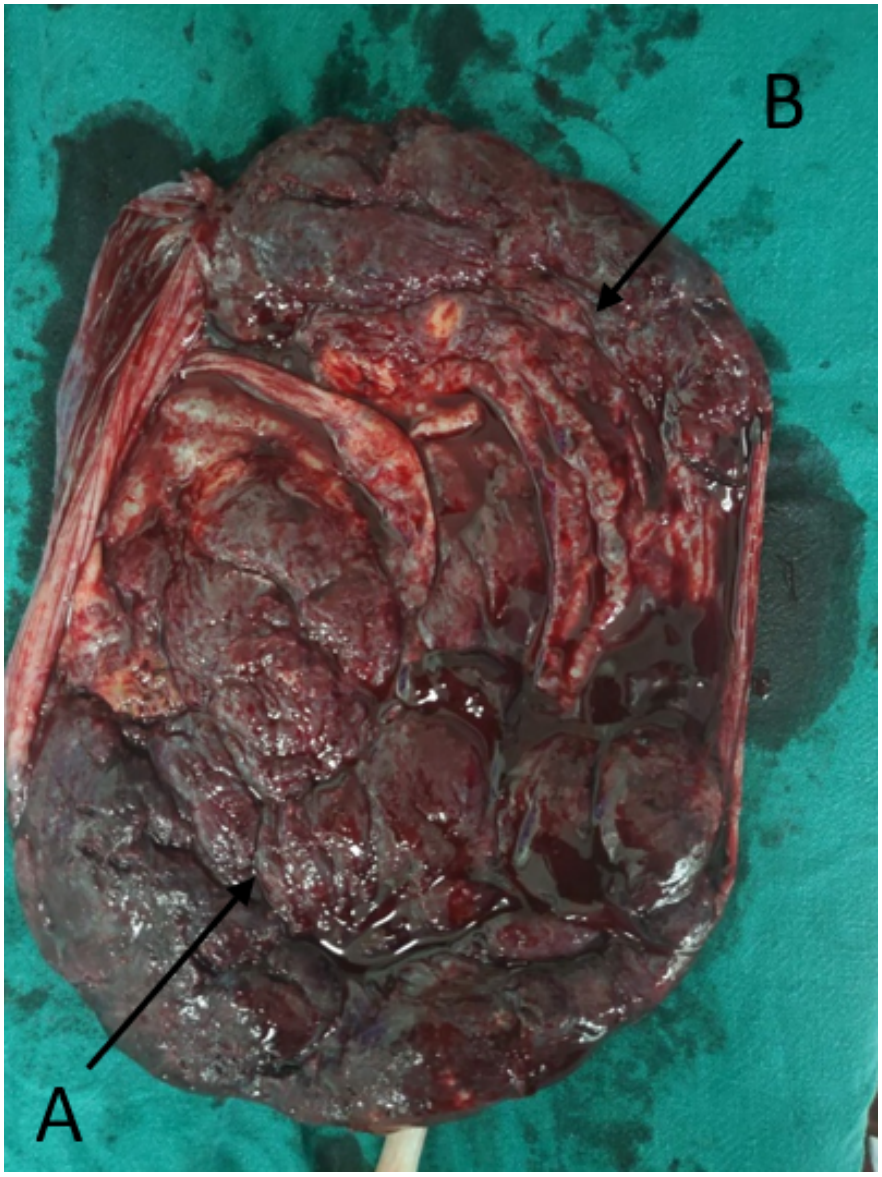

Figure 1: Main lobe of placenta (A) connected to the accessory succenturiate lobe of placenta (B) by fetal blood vessels

Discussion:

Morphological variation in placenta is not so uncommon. The variation in anatomy of placenta and its associated vessels frequently complicate normal labor. Various individual, genetic as well as environmental factors interplay in causation of the variation in the placenta. [4] Succenturiate lobe is also a clinically significant morphological variation of placenta arising as a result of interplay between these factors. There are different hypothesis supporting the formation of the succenturiate lobe of placenta. One of the hypotheses emphasizes that a small island of normal villous tissue remains at a distance from the main lobe of placenta forming the succenturiate lobe as the villous tissue between the two lobes atrophies. Other hypothesis states that succenturiate lobe is created when ovum is implanted between sulcus between two walls of the uterus. [4, 5] Succenturiate lobe of placenta can be suspected in time by ultrasonography. However, confirmation of presence of succenturiate lobe by ultrasonography is rare. It is a very challenging task to confirm the findings and requires ruling out conditions like multiple pregnancy, structures like amniotic band and uterine septum. [1, 4]

In this case, presence of succenturiate lobe of placenta was suspected beforehand during antenatal ultrasonography at 34 weeks of gestation and was taken into consideration for emergency cesarean section leading to otherwise uneventful delivery of a healthy fetus.

Conclusion

Succenturiate placenta is a clinically important morphological abnormality often leading to complicated labor, post-partum hemorrhage and infection. Obstetricians should have a high level of suspicion in pregnancy with associated risk factors during antenatal ultrasonography. Early detection of succenturiate placenta during antenatal checkup can prevent the occurrence of these complications and help in proper management of pregnancy and labor. Furthermore, advanced technologies like color doppler can be implemented to pinpoint the diagnosis and thus help to expect the possible complications and prevent them in time.

Abbreviations

LSCS: Lower segment cesarean section

Bpm: Beats per minute

Declarations

Ethics approval and consent to participate: Not required

Consent for publication : Written informed consent was obtained from the patient and her husband for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

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Nischal Shrestha (NS), Yagya Raj Adhikari(YRA), Shiva Lal Bhattarai (SLB)= Editing and writing

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