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INTRODUCTION

Fetal growth restriction (FGR) is one of the commonest complications in a twin pregnancy.¹ DCDA twin pregnancy complicated with sFGR is associated with a 3-fold risk of neonatal morbidity.² FGR is classified into type I,II,III and IV based on abnormal Doppler findings.³ Uteroplacental insufficiency is considered to be the most likely etiology in dichorionic twin pregnancies with sFGR.¹ There is a fivefold increase in the odds of intrauterine death in a dichorionic diamniotic twin pregnancy complicated by selective fetal growth restriction (sFGR).² Management of a dichorionic twin pregnancy complicated by sFGR mimics that of growth-restricted singleton pregnancies.⁴ In under-resourced settings, investigations and care of high-risk pregnancies are hampered by inadequate healthcare financing and a shortage of skilled personnel.

We present a case of a G1P0 with a dichorionic twin pregnancy with significant fetal growth discordance at the initial ultrasound examination.

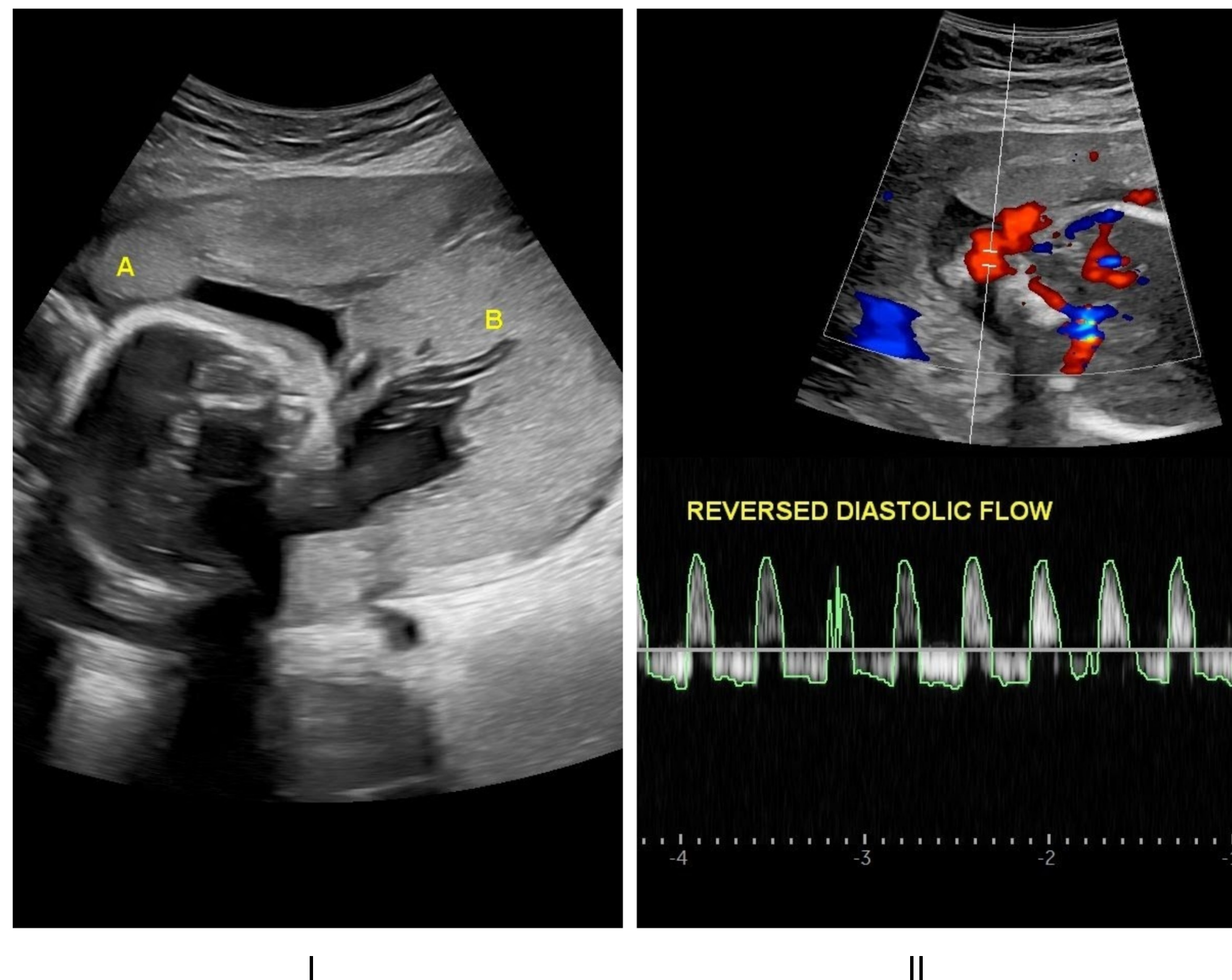


Figure 1. Ultrasound image demonstrating dichorionic diamniotic twin pregnancy (I) and abnormal umbilical artery Doppler (II)

CASE PRESENTATION

A 32 year old primigravida presented to the high risk antenatal clinic at a gestation of 21 weeks 2 days. The initial fetal anatomy scan showed a twin pregnancy with 41% growth discordance, prompting referral to the nearest maternal-fetal medicine center (135 km away). At 25 weeks 1 day, ultrasound confirmed a dichorionic diamniotic pregnancy complicated by type III sFGR (smaller twin estimated fetal weight < 3rd centile). Additional findings include a 72% fetal weight discordance, reversed end-diastolic flow, umbilical artery pulsatility index > 95th centile and amniotic fluid deepest vertical pocket of 1.8. Parental counseling and prognosis were discussed. Conservative management with biweekly ultrasound for fetal biometry and Doppler was planned. Demise of the growth-restricted twin was diagnosed at 33 weeks. A subsequent referral to the maternal-fetal medicine center for longitudinal assessment of MCA-PSV was advised; however, the patient was unable to attend the review at the tertiary center. She continued with the biweekly reviews and ultrasound assessments at the high risk clinic. Delivery via cesarean section was performed at 37 weeks, resulting in a live female neonate (2680g) with an APGAR score of 9 110 5 10 10. The deceased twin weighed 150g. The surviving twin's developmental milestones are unremarkable.

CONCLUSION

Dedicated ultrasound and multidisciplinary management aid in;

- early identification
- subsequent care &
- optimization of fetal outcomes

in twin pregnancies complicated by sFGR in under-resourced regions.

DISCUSSION

- Fetal growth restriction contributes to increased risk of perinatal morbidity and mortality in a twin pregnancy.¹
- The Delphi method is a pragmatic approach to the definition, identification and management of a twin pregnancy complicated with FGR.⁵
- Establishing etiology of FGR in twin pregnancy guides management; however, in under-resourced settings, a full work up poses a great challenge due to low purchasing power. Lack of a robust healthcare financing model hinders access to tertiary care for high risk pregnancies.
- Management of a dichorionic twin gestation complicated with fetal growth restriction is challenging. A similar management approach to singleton pregnancies complicated with FGR is recommended.⁴
- Utility of ultrasound and strict follow up guide the management of a twin gestation complicated with FGR.
- Expectant management is preferable for the normally growing foetus in DC twin pregnancies complicated with FGR. A biweekly - weekly assessment of fetal growth through biometric measurements, UA and MCA Doppler and amniotic fluid volume assessment is recommended.⁴
- Following the death of a co-twin, fetal biometry assessment, UA and MCA Doppler assessment in the surviving twin every 2-4 weeks as well as neurosonography after 4-6 weeks are the standard practice.⁴ Conservative management of the properly growing fetus is best; including, completion of maternal corticosteroids. Consider delivery at 34 - 36 weeks.⁴
- Team management and regular communication involving Obstetricians, Maternal-fetal medicine specialists and Radiologists offer great value in improving outcomes in twin pregnancies complicated with FGR.

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