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Monochorionic monoamniotic twin pregnancy discordant for a myelomeningocele – a management dilemma

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Introduction Monochorionic Monoamniotic (MCMA) twins is a rare form of multiple pregnancy in which both twins share both a single placenta and amniotic sac. (1) Fetal abnormalities are more common in twin pregnancy and when associated with a normal co-twin creates a management dilemma especially in the context of a MCMA pregnancy. (2) Myelomeningocele (MMC) is an open spinal cord defect that protrudes dorsally, is not covered by skin and is often associated with varying degrees of paralysis and sensory deficits below the lesion and hydrocephalus. (3)

Case Report We report a case of MMC affecting one twin of a MCMA twin pregnancy. A 19 year old woman conceived spontaneously and at the morphology scan a lemon shaped fetal skull, banana shaped cerebellum and a lumbosacral MMC were identified in one twin. There were no fetal abnormalities identified in the co-twin. The parents were counselled regarding the risks for the fetus affected with MMC in the context of a MCMA twin pregnancy. The options of expectant management of the pregnancy, single selective termination of the affected fetus or termination of the entire pregnancy were discussed. The parents chose expectant management. In addition to routine antenatal care, fetal ultrasounds were performed fortnightly to monitor for fetal growth restriction, twin to twin transfusion and twin anaemia polycythemia sequence.

The woman was managed as an outpatient. Daily CTG monitoring was commenced at 28 weeks gestation with a view to deliver by elective caesarean section at 34 weeks.

Discussion This case highlights the management challenges when faced with a discordant non-lethal fetal anomaly in a MCMA pregnancy. Selective termination aims to provides parents a morphologically normal fetus delivering close to term but carries the risk of miscarriage of the entire pregnancy or preterm birth. The standard of practice is to perform an elective caesarean section at 32 – 34 weeks gestation in MCMA twins which unfortunately compounds the risk of prematurity in both twins, in particular the twin with MMC.

Conclusion MCMA twins are genetically identical, however, it is well recognised that they can be discordant for a structural congenital abnormality. This presents a management dilemma as interventions on behalf of one twin must take into account the consequences for the co-twin.

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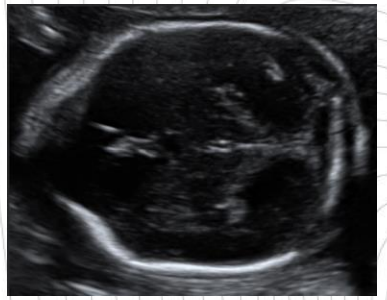
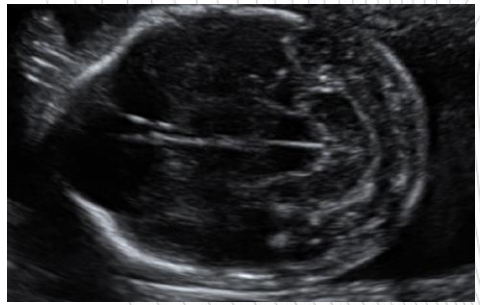
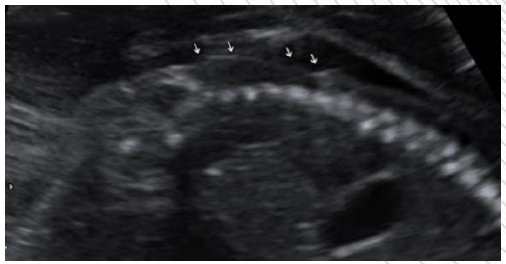


Axial fetal head - lemon shaped fetal skull



Axial fetal brain – banana shaped cerebellum



Sagittal spine – lumbosacral MMC sac

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