Perinatal outcome of MCMA twin pregnancies compared to uncomplicated MCDA twin pregnancies  

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Objective  
To compare the neonatal outcomes of monochorionic monoamniotic (MCMA) to uncomplicated monochorionic biamniotic (uMCDA) twin pregnancies.

Methods  
A retrospective cohort study comparing 31 MCMA pregnancies with 91 uMCDA pregnancies all followed and delivered at Sheba Tel Hashomer academic tertiary center. All monoamniotic twin pregnancies were hospitalized at a median of 27+6 weeks and scheduled for elective cesarean section between 32-33 weeks of gestation. All MCDA pregnancies were followed as outpatients, hospitalized according to clinical indications and scheduled to elective delivery between 36-37 weeks.

Results  
The gestational age at delivery was significantly earlier in the monoamniotic group (median 32, range 30-33 weeks vs. median 36, range 28-38 weeks, p<0.001). The rate of anomalies was significantly higher in the monoamniotic group (4/31 vs 0/91 P<0.002). There was no significant difference between the groups in the rate of non-elective (urgent) unscheduled deliveries (32% vs 23% p<0.327). With respect to perinatal outcomes there was no significant difference between the groups in the rate of IUFD (1/31 vs 3/91 P<0.985). In the MCMA group there were 2 neonatal deaths - one related to trisomy 13 and another to anencephalus - apart from these deaths there were no other neonatal deaths in both groups. There was no significant difference between the groups in neonatal CNS findings, sepsis or NEC and the only difference found was in the RDS ratio (33/59 vs 12/177 P<0.001).

Conclusion  
Though monoamniotic twin pregnancies are at risk for unique complications such as cord entanglement, we did not find them to be at higher risk for intra uterine fetal death or emergent cesarean delivery compared to monochorionic diamniotic twins. Due to the common practice of early delivery at 32 weeks of monoamniotic twins there is a significantly higher rate of RDS in this group. However, the risk of CNS findings, sepsis or NEC was similar in both groups.