

Twelve Months of Monochorionic Twins: Local Management Versus Tertiary Centre Interventions

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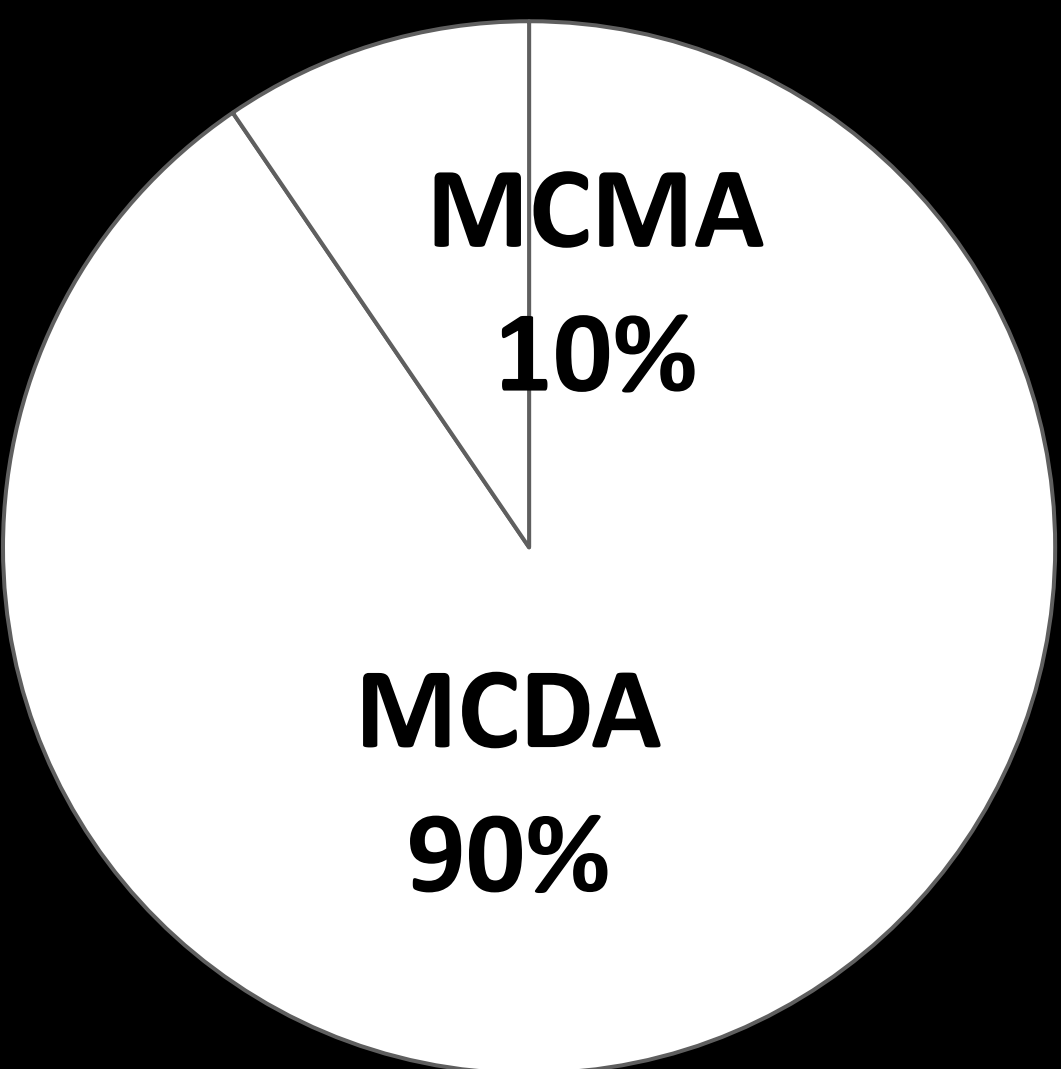
Introduction

Monochorionic (MC) twin pregnancies are a commonly encountered caseload within fetal medicine, due to the increased risk of placental vascular complications ⁽¹⁾. Twin to twin transfusion syndrome (TTTS) occurs in approximately 10-20% of MC twins ⁽²⁾, with twin arterial perfusion syndrome (TAPS) having an incidence of 5%. Both of these conditions potentially require interventional therapy, whereas other complications such as selective growth restriction (sGR) and single intrauterine fetal death (sIUFD) typically require a more conservative or delivery focused approach.

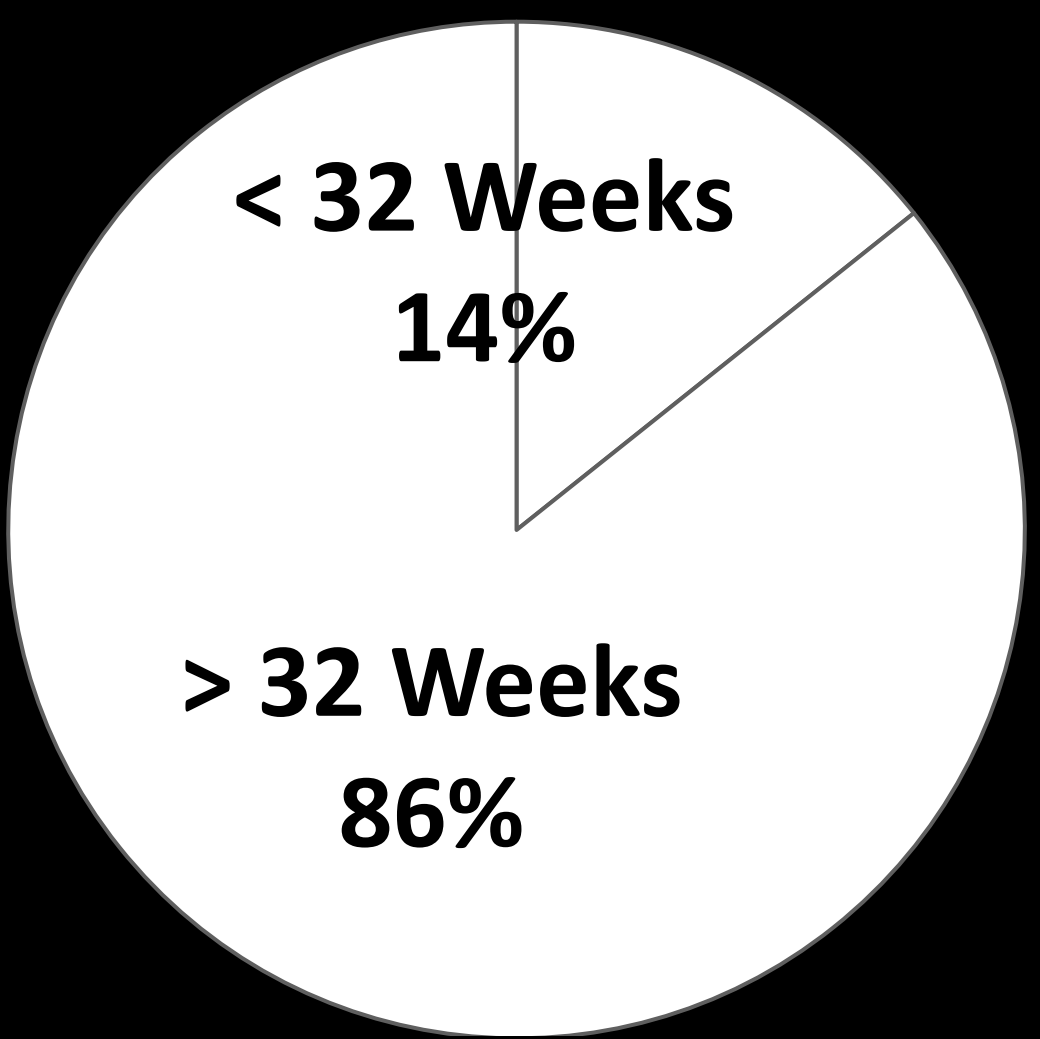
Methods

All monochorionic pregnancies identified from booking ultrasound and referred to fetal medicine, were analysed, including complications, gestational age at delivery and mode of delivery, between January and December 2022. Where complications occurred, tertiary fetal medicine centre referrals and interventions were reviewed.

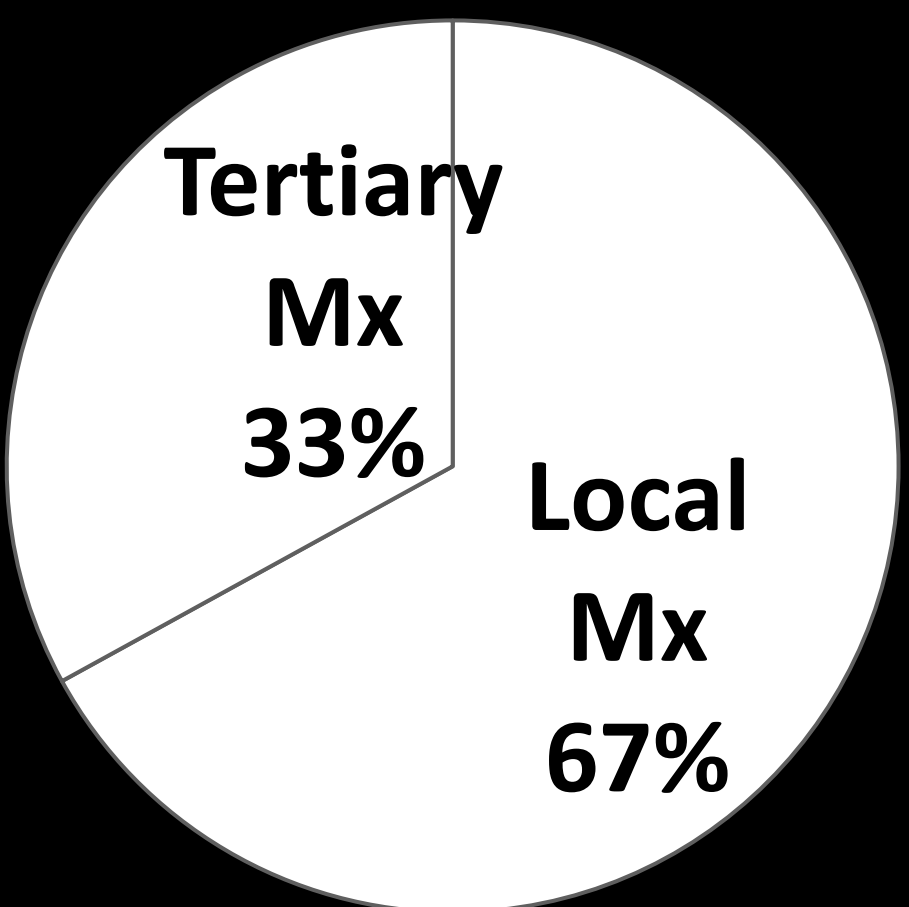
TYPE OF MC PREGNANCIES



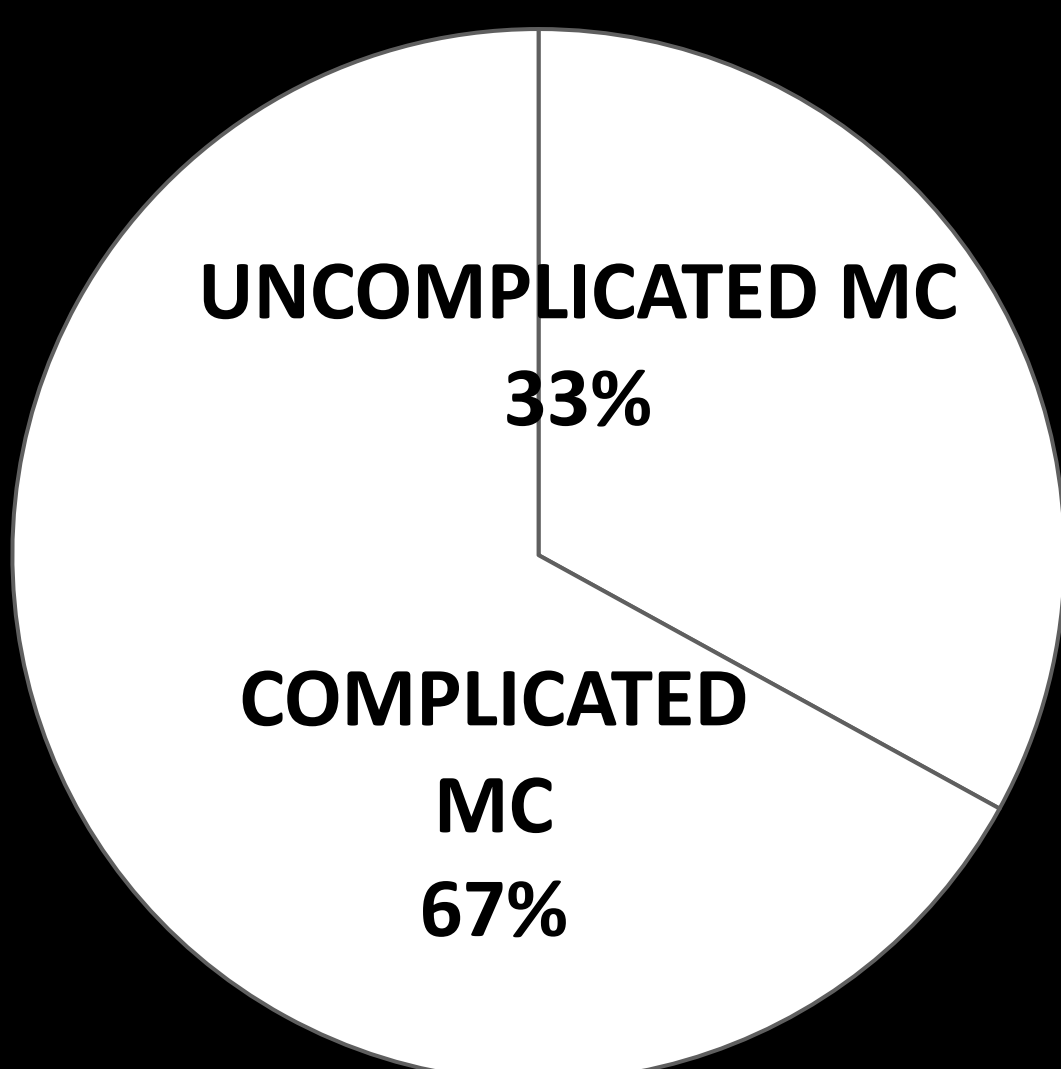
DELIVERY GESTATION



LOCAL VERSUS TERTIARY MX



COMPLICATED VERSUS UNCOMPLICATED



Complication	Percentage
TTTS	23%
sGR	38%
Early Onset FGR	15%
Late Onset FGR	8%
TAPS post TTTS	8%
sIUFD	8%

Tertiary Centre Mx	Percentage
TTTS Laser	29%
Amniodrainage (MCMA TTTS)	14%
MCMA sGR Surveillance	14%
sIUFD MRI	14%
TOF Twin 1 Cardiac	29%

Results

21 MC twins were initially managed by our fetal medicine unit, representing an incidence of 0.3% (based on our delivery rate of 6500 per year). Complications occurred in 67% of cases, with 30% of these being TTTS and/or TAPS related. Interestingly, two of our MC twins were monoamniotic (10%), whereas usual incidence of MCMA is 5% of MC twins ⁽³⁾. Tertiary management was required in 33% of cases, with the majority of these being TTTS/TAPS related (laser ablation as well as amniodrainage). Reassuringly 67% of twins were managed within our own unit, with 14% of twins delivered prior to 32 weeks – however all of these extreme preterm deliveries were due to TTTS/TAPS complications.

Discussion

MC twins remain an important part of the workload within fetal medicine, with particularly poor outcomes associated with placental anastomoses complications (TTTS/TAPS) and tertiary centre input remains crucial in these scenarios. Reassuringly, the majority of complications can be managed at a local level, with delivery at gestations greater than 32 weeks.

References

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- Shub A, Walker SP. Planned early delivery versus expectant management for monoamniotic twins. Cochrane Database Syst Rev 2015; (4): CD008820.