



Marginal Cord Insertion: Are routine serial growth scans necessary?

3-year retrospective review

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Introduction

- Marginal Cord Insertion (MCI) occurs if the umbilical cord insertion is less than 2cm from the placental margin.
- It occurs in 7% of singleton pregnancies.
- There is conflicting evidence on MCI management with some association with SGA, PTB and intrapartum complications

Method

- Retrospective audit from Jan 2017 – 2020 at single metropolitan hospital
- All singleton pregnant women with confirmed MCI confirmed on gross examination of the placenta postpartum were included
- Data collection extracted from electronic health records

Results

9,669 deliveries → 306 with MCI on post-partum review were included in the study group

US Outcomes	All MCI N=306	Detected MCI on US
Departmental US	103 (33.6%)	N=103 10 (9.7%)
External US	203 (66.4)	N=203 32 (15.7)

Neonatal Outcomes	All MCI N= 306	Isolated MCI N=160
GA at delivery (weeks)	38.9	39.1
Birthweight (grams)	3277.8	3330.0
Birthweight <10%	38 (12.4%)	15 (9.4)
Apgars <7 at 5mins	7 (2.3)	4 (2.5)

Maternal Outcomes	All MCI N= 306
IOL	
Yes	104 (34%)
No	202 (66)

MOD	
Elective	54 (17.6)
C/S Emerg	61 (19.9)
C/S NVD	136 (44.4)
NBF	
Vacuum	38 (12.4)
Other	16 (5.2) 1 (0.3)
EBL (mls)	465.2
PPH (EBL >500mls)	90 (29.4)

Conclusion

- This study supports the need for serial growth US in those identified to have MCI
- Further studies are required to determine the frequency of these US, as well as a review of the health economic costs associated with increased imaging

Discussion

1.US outcomes: A large proportion of MCI was not detected on US, However the accuracy of MCI detection on postpartum placental examination is unknown.

2.Maternal Outcomes: The emergency C/S rate was 20%, this below the national average. Almost 1 in 3 women had a PPH (30%)

3.Neonatal Outcome: Just over 12% had a birthweight of <10%, which is in keeping with recent studies suggesting an association with MCI and SGA¹. However, in those women with isolated MCI, birthweight <10% was 9.4%, equivalence to the national average for SGA. (AIHW)