

Intervening without indication?

A retrospective review of large for gestational age pregnancies diagnosed by scan

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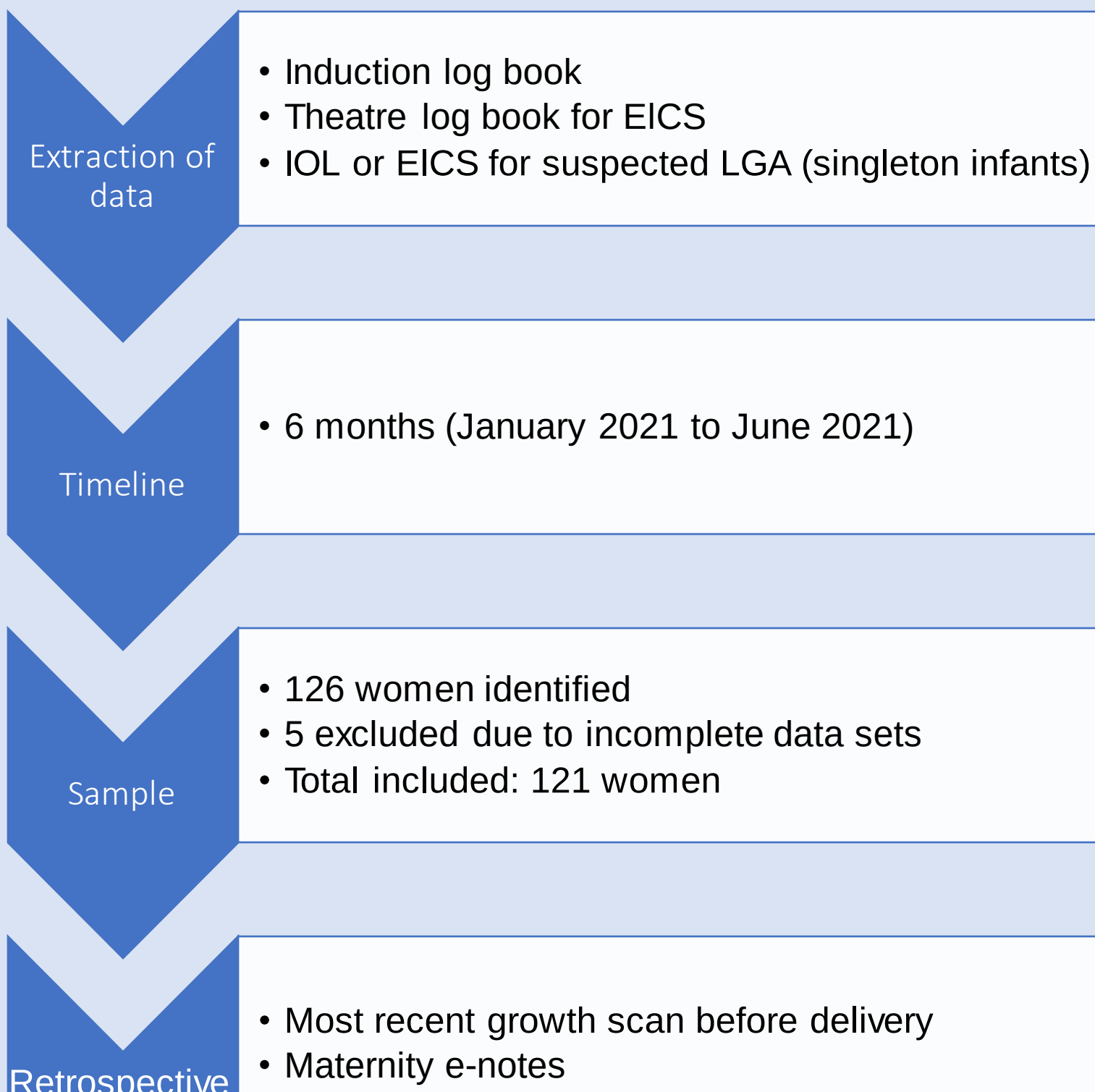
Background

- Limited sensitivity of ultrasonographic detection of large for gestational age (LGA) pregnancy (1)
- Change of consent process after Montgomery ruling, and increased importance of counselling women and obtaining informed consent (2)
- Current lack of national and local guidelines for management of LGA pregnancy
- Observation in our maternity unit that many women who underwent induction or labour or elective caesarean section (EICS) for suspected LGA pregnancies did not give birth to LGA babies

Aim

- To evaluate the accuracy of estimated fetal weight (EFW) on scan to predict actual birth weight in a district general hospital
- To analyse management of LGA pregnancies diagnosed on scan, associated complications, and its correlation with actual birthweight
- To evaluate association between LGA and GDM

Method



Results

Demographics

Parity and BMI had no correlation with actual fetal weight in the sample that was analysed. BMI>35 had the largest discrepancy between EFW on GROW chart and actual fetal weight.

Mode of delivery

Only 33.8% (n=41) of women delivered babies with actual birth weight percentiles above the 90th percentile. 92.7% (n=38) had an EFW above 90th percentile, and 90.2% (n=37) had AC above 90th percentile identified on antenatal scan.

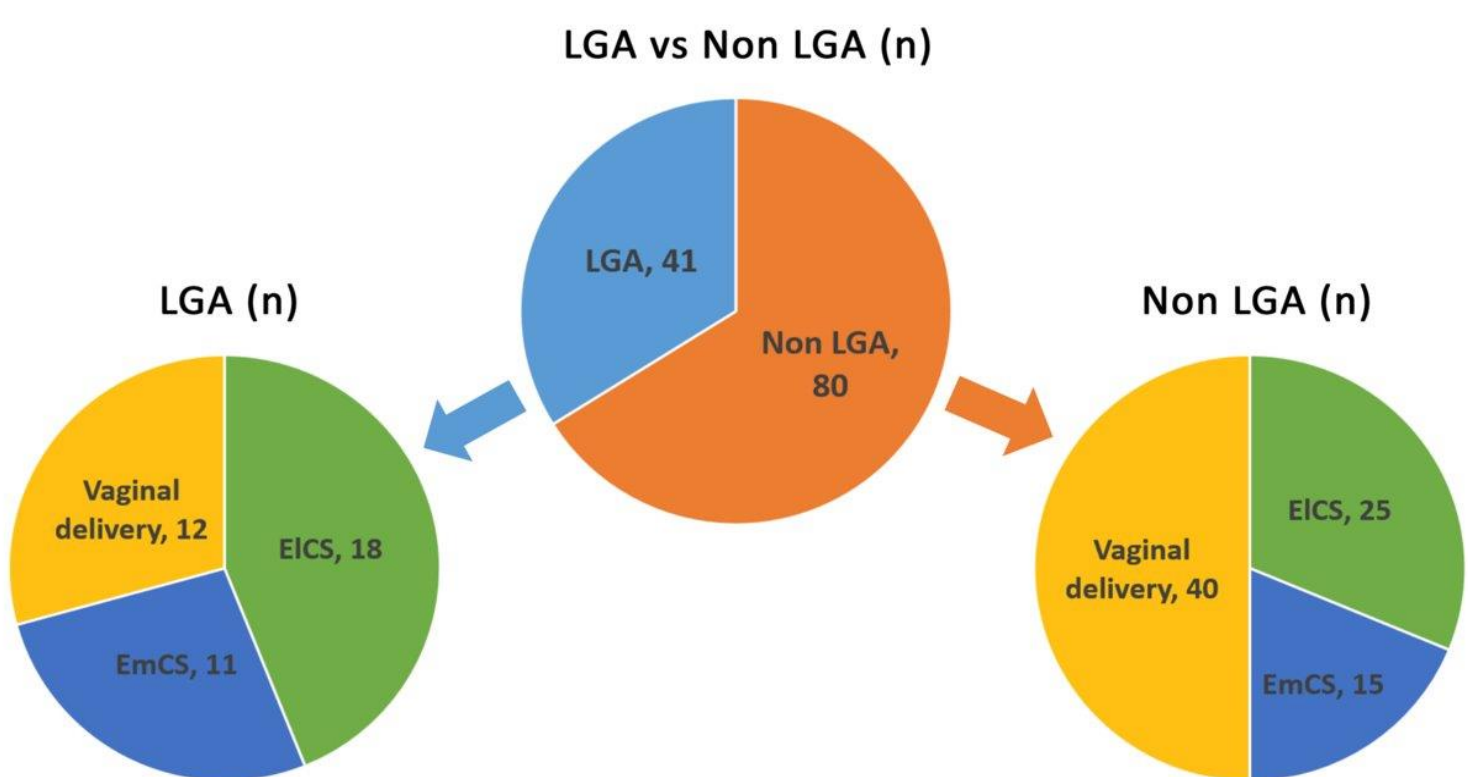


Figure 1. Proportion of LGA by actual birth weight and mode of delivery by LGA or non LGA (actual birth weight centile)

LGA by actual birthweight comprised only 41.8% (n=18) of elective caesarean cases, 42.3% (n=11) of emergency caesarean sections, and 23.1% (n=12) of vaginal deliveries.

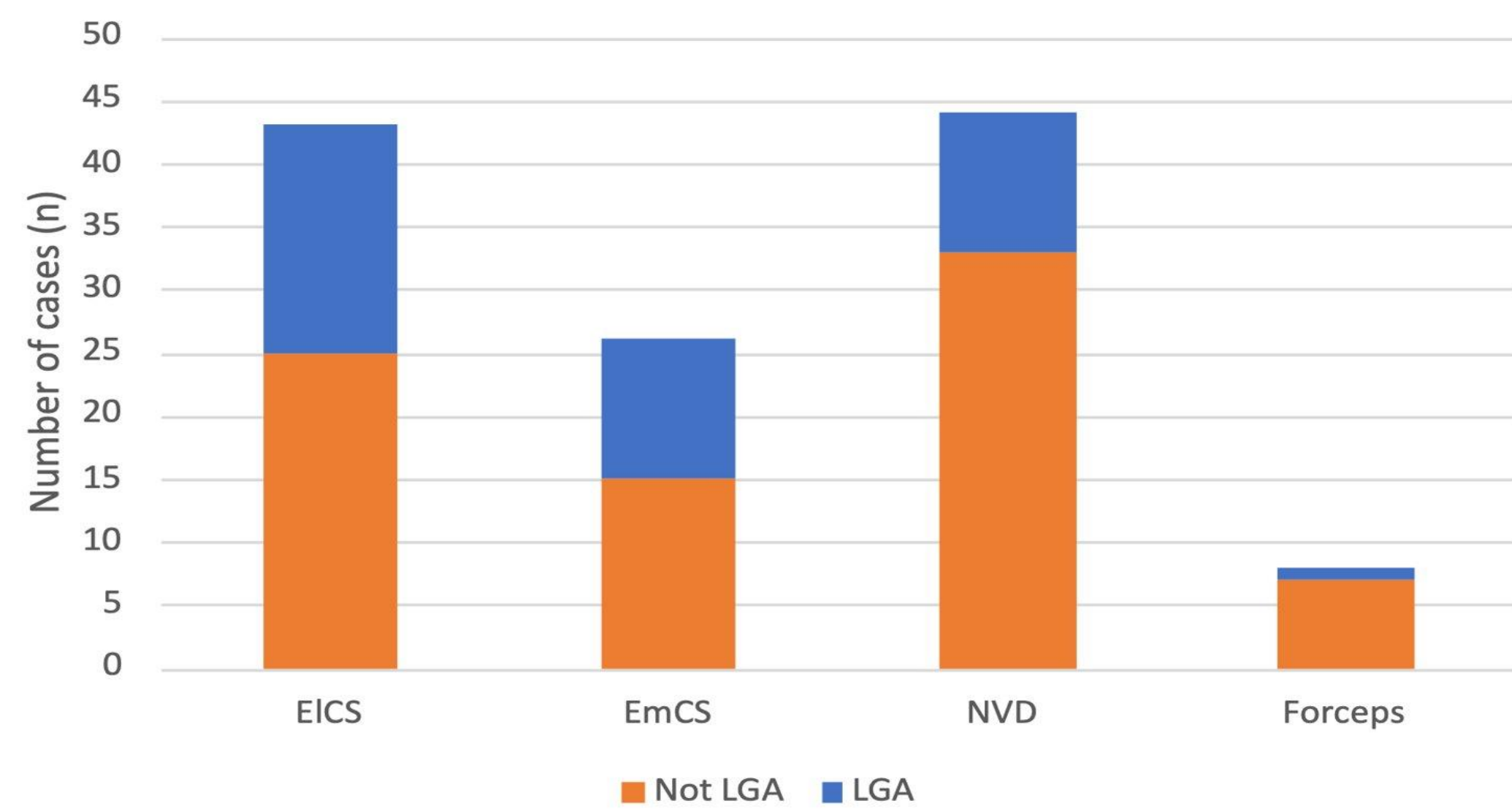


Figure 2. Proportion of LGA and non LGA (actual birth weight centile) by mode of delivery

Detection rate of LGA

Accuracy was not increased with higher gestational age at scan.

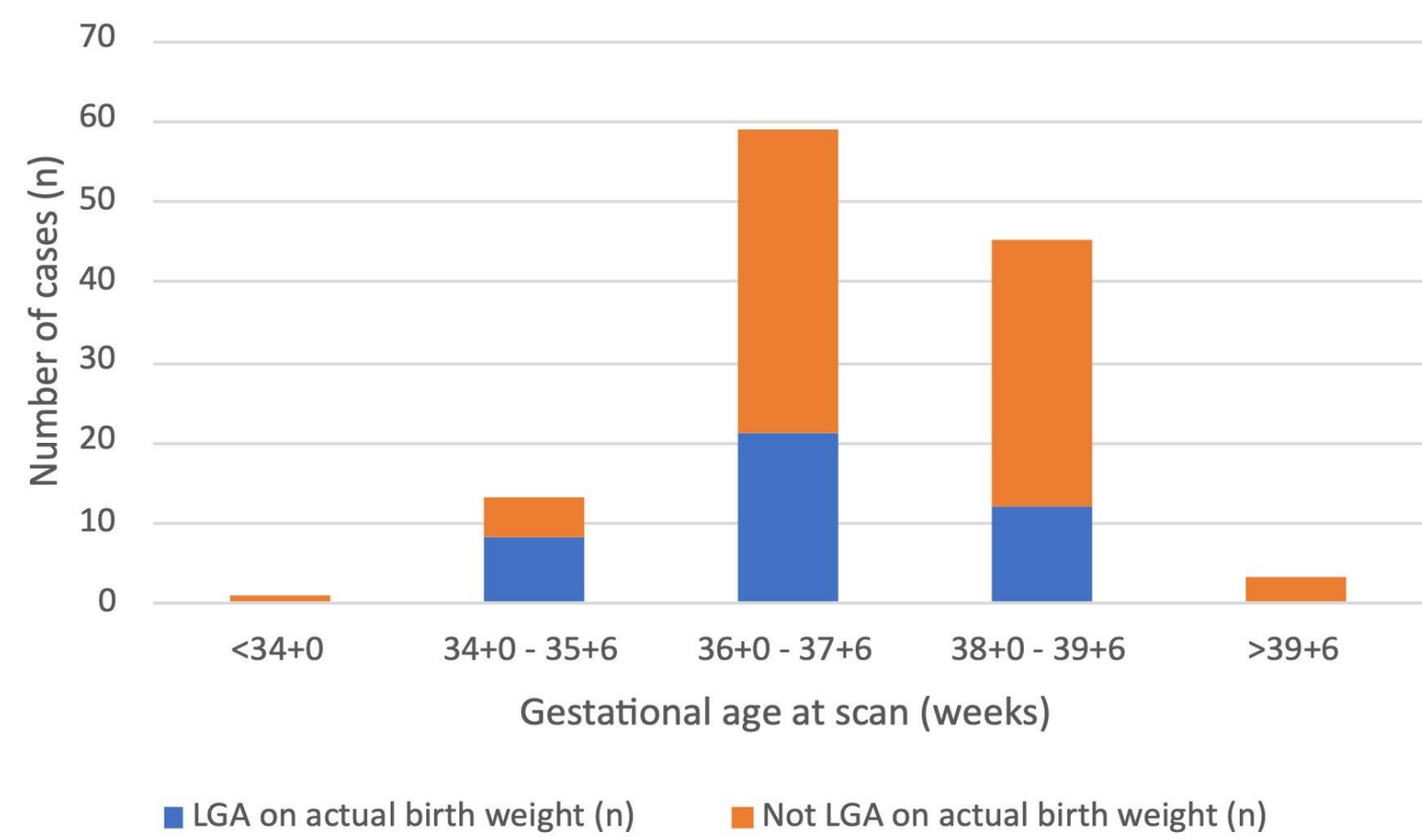


Figure 3. LGA detection based on gestational age at most recent scan

Complication rate in LGA deliveries

Rate of perineal tear was higher in women who delivered babies who were LGA on actual birth weight compared to those who delivered non-LGA babies, with rates of 50% and 36% respectively.

		Perineal tear				Shoulder dystocia
		0	2	3a	Epis	
NVD	LGA	6	3	1	0	0
	Not LGA	26	14	0	0	1
NBFD	LGA	0	0	0	1	0
	Not LGA	0	0	0	6	0

Rate of PPH did not correlate with whether the baby delivered was LGA or not. Confounding factors for blood loss was not controlled for.

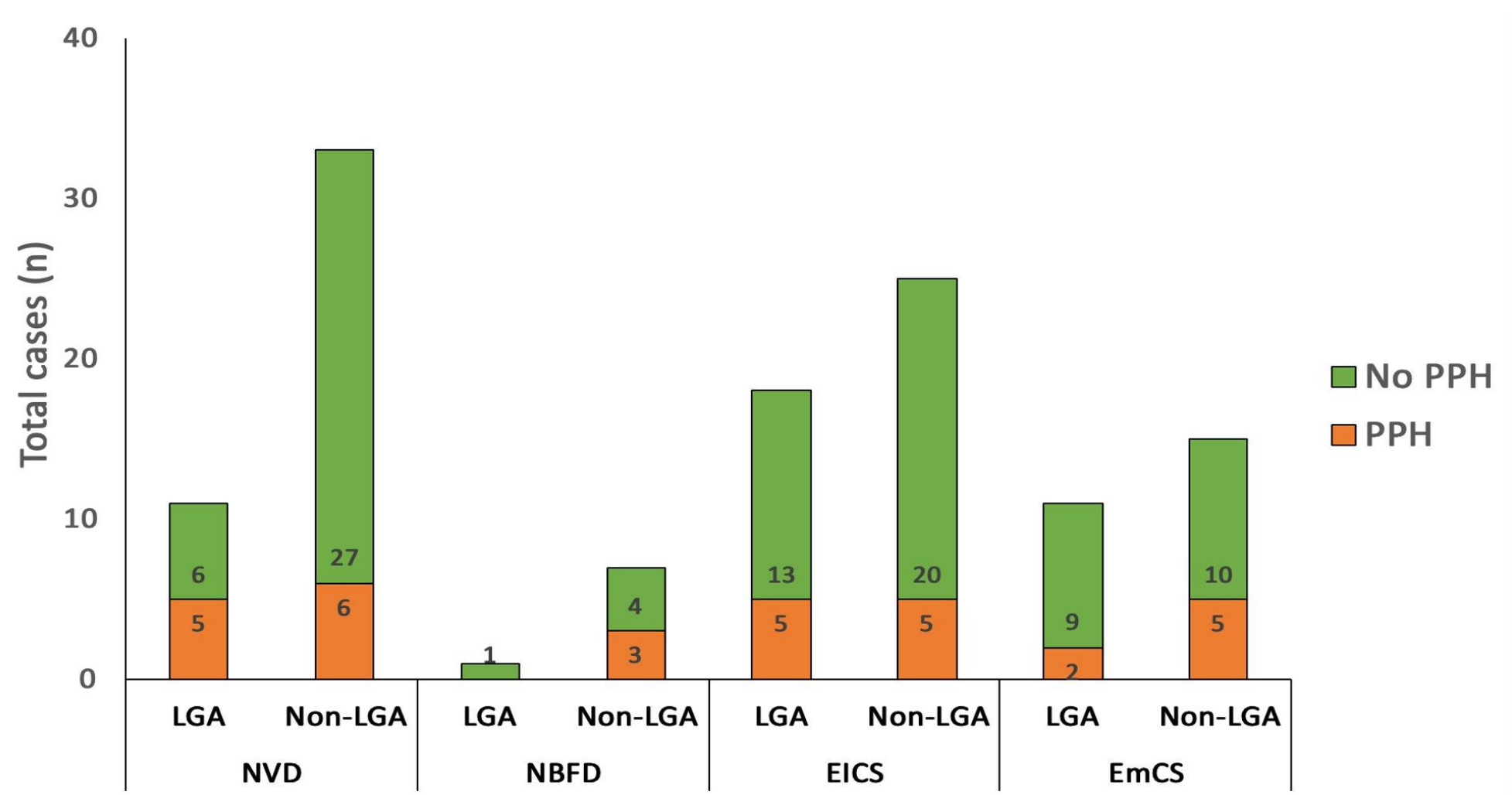


Figure 4. Rate of PPH by mode of delivery and presence of LGA on actual birth weight

Gestational diabetes mellitus

GDM did not correlate with presence of LGA.

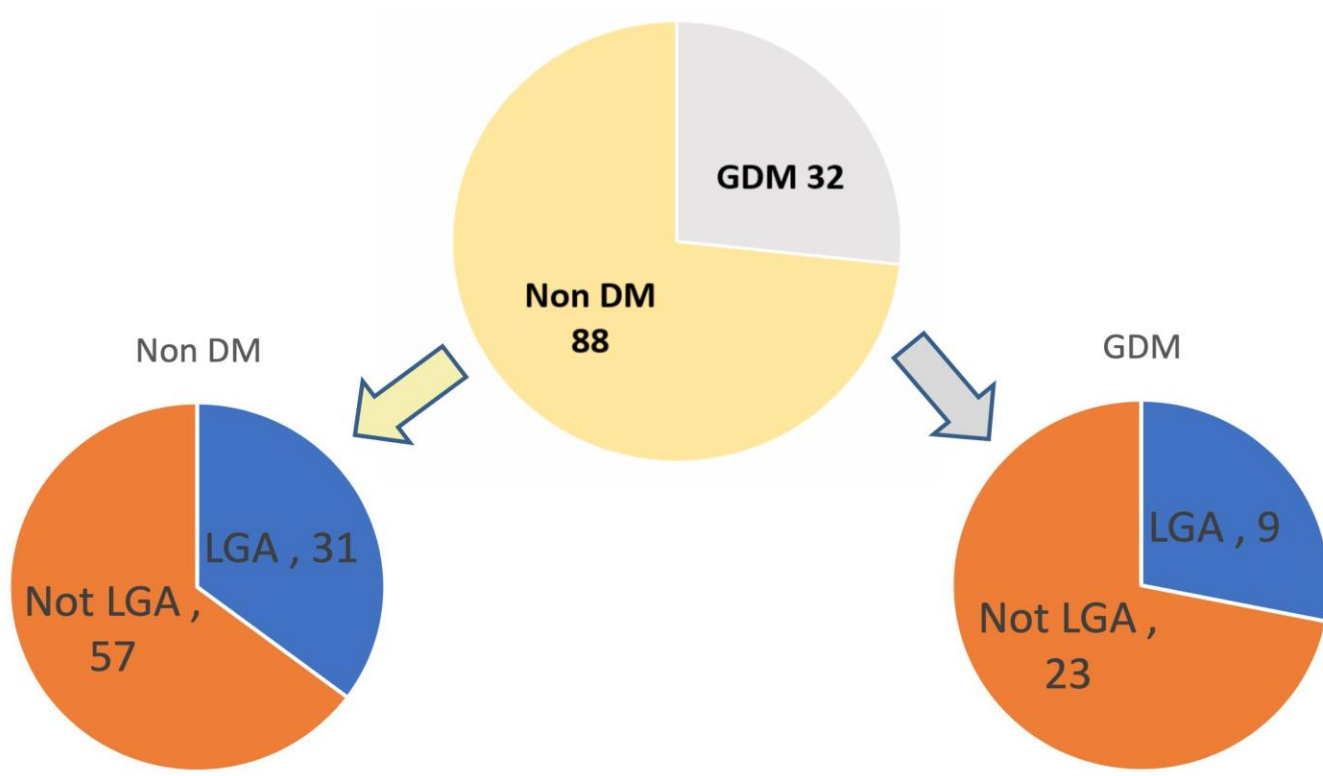


Figure 5. Rate of maternal GDM in suspected LGA and presence of LGA by actual birth weight centile

Discussion

- Limitations: Small sample size. Complication of delivery did not account for operator experience level and other confounding factors
- Unnecessary short and long term post-operative morbidity in 58% of women who underwent EICS and delivered a normally grown baby

Conclusion

- USS predicts fetal weight percentile of average 11.7% higher than actual birth weight percentile
- No relationship between LGA and parity or BMI
- 66.1% of women undergoing intervention for suspected LGA had babies with actual fetal weight <90th centile
- 12 cases of LGA delivered vaginally
- No obvious correlation between LGA and complication rates
- No obvious correlation between GDM and LGA
- Counselling should be offered on the result of scan >36 weeks
- Need for national guideline for management of LGA pregnancies

References

- Milner J, Arezina J. The accuracy of ultrasound estimation of fetal weight in comparison to birth weight: A systematic review. Ultrasound. 2018;26(1):32-4
- Chan S, Tulloch E, Cooper E, Smith A, Wojcik W, Norman J. Montgomery and informed consent: where are we now?. BMJ. 2017;;j2224.