Safety Profiles for Induction of Labour

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Introduction

There is significant debate regarding the timing and safety profile of induction. There is also a lack of transparent and reproducible methods for classifying women undergoing induction within current literature. Nippita et al (2015) has introduced a novel classification system to allow examination of outcomes according to homogenous groups of women having an induction of labour. The primary aim of this study is to describe maternal and neonatal outcomes following induction, for women who delivered at a large community hospital between 2014-2018 within these 10 different induction classification groups.

Methods

This is a retrospective audit reviewing existing medical records to determine outcomes for all eligible women who underwent induction of labour between January 2014 to December 2018 (10324 women), classified within the 10 classification groups outlined by Nippita et al (2015).
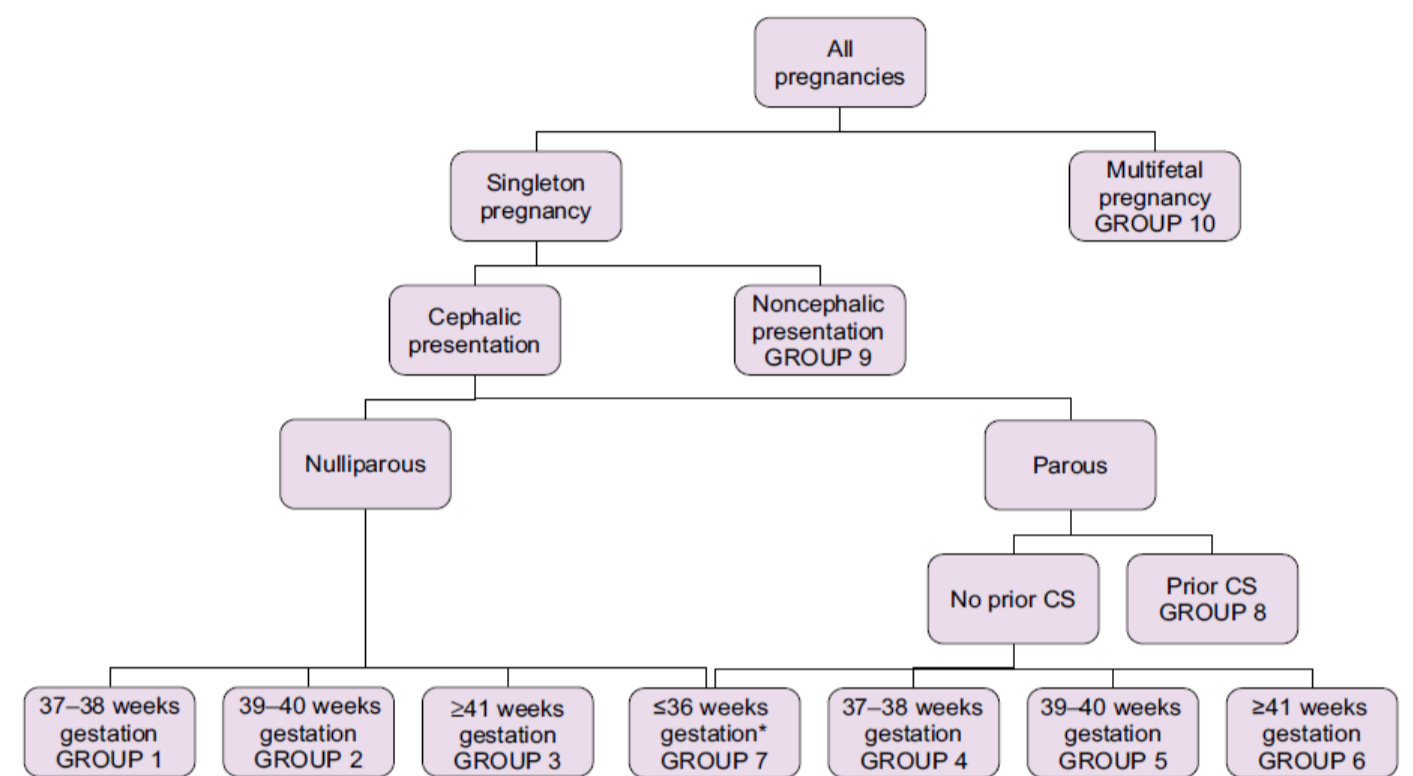
Nippita et al.

Figure 1. Hierarchical nature of the ten groups in the classification system for induction of labour. *Parous and nulliparous women ≤36 weeks of gestation are combined into one group.

Results

	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8	Group 9	Group 10
Caesarean Section	26.98%	31.17%	41.00%	6.59%	6.33%	8.31%	13.10%	134.97%	20.92%	13.10%
Instrumental Delivery	26.31%	29.08%	28.53%	4.66%	6.62%	6.05%	12.50%	14.51%	5.44%	27.38%
PPH 500-999mls	25.27%	31.12%	33.66%	12.77%	14.40%	10.08%	12.90%	28.24%	21.34%	13.10%
PPH 1000-1999mls	8.10%	9.46%	9.56%	6.59%	6.56%	5.29%	5.04%	8.03%	5.86%	3.57%
PPH >2000mls	0.83%	1.53%	2.63%	1.67%	1.92%	2.77%	1.61%	1.81%	1.67%	5.95%
Blood transfusion	3.32%	3.71%	4.43%	2.58%	2.15%	0.76%	2.62%	2.07%	2.93%	2.38%
3rd degree tear	5.09%	6.84%	4.99%	1.01%	1.45%	1.76%	1.61%	1.81%	3.35%	-
4th degree tear	0.05%	0.22%	0.14%	0.10%	0.17%	0.25%	-	-	0.84%	-
Epidural	57.86%	60.33%	63.02%	27.72%	23.23%	17.38%	52.62%	48.45%	51.05%	91.07%
SCN admission	19.67%	14.65%	15.93%	11.45%	7.72%	4.53%	48.99%	11.66%	8.37%	36.31%
Transfer to NICU	0.10%	0.04%	0.28%	0.05%	0.17%	-	0.60%	-	0.42%	-
Neonatal mortality	-	-	-	-	-	-	-	-	-	-

PPH = Post Partum Haemorrhage, SCN = Special Care Nursery , NICU = Neonatal Intensive Care Unit

Conclusion

The difference in safety profiles between the classification groups is of importance when counselling women in regards to risks with induction of labour. The timing of an induction should not be altered from current guidelines as a result of these findings however appropriately counselling of the women in regards to risks and expectations can be more specific.

Reference

1. Nippita TA et al, Methods of classification for women undergoing induction of labour: a systematic review and novel classification system, BJOG 2015 Sep;122 (10) 1284-93

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