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A COMPARISON OF PERINATAL OUTCOMES BETWEEN OLDER AND YOUNGER PRIMIPAROUS WOMEN AT A TERTIARY HOSPITAL

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Background

Pregnancies at advanced maternal age (AMA) have been associated with higher risks of medical comorbidities, complications in pregnancy, as well as labour and birthing complications[1]. With more and more women having children at a later age, maternity service providers must be aware of the risks associated with pregnancies of AMA.

Objective

To assess the relationship between advanced maternal age (≥35 years old) and adverse perinatal outcomes in primiparous women.

Results

During the study period, there was a total of 1,827 births.

- AMA group = 48 women (2.6% incidence)
- Control = 89 women randomly selected

Variables	AMA (n = 48)	Control (n = 89)	P-value
Booking BMI >35	9 (18.8%)	13 (14.6%)	0.530
Use of ART	8 (16.7%)	3 (3.4%)	**< 0.05**
Midwifery-led care	8 (16.7%)	29 (32.6%)	**< 0.05**
Induction of labour	18 (37.5%)	41 (46.1%)	0.335
Failed induction	5 (10.4%)	1 (1.1%)	**< 0.05**
Instrumental delivery	7 (14.6%)	11 (12.4%)	0.714
Caesarean section	21 (43.8%)	19 (21.3%)	**< 0.01**
Preterm birth	9 (18.8%)	4 (4.5%)	**< 0.05**
Mean gestational age at delivery (days)	269 (13)	274 (10)	**< 0.05**
Mean birthweight (g)	3084 (546)	3282 (490)	**< 0.05**
SGA	9	14	0.747
Admission to SCN/NICU	9 (18.8%)	13 (14.6%)	0.530

Method

A retrospective study was conducted at Lyell McEwin hospital, a tertiary hospital in Adelaide, South Australia. It included women who delivered from January to June 2017 (6 months), comparing singleton pregnancies of primiparous AMA women to women aged 25-29 years old (control). Data collected included maternal demographics, pre-existing medical conditions, use of assisted reproductive technology (ART), complications in pregnancy, labour and delivery outcomes, as well as neonatal outcomes. The SSPS software was used for statistical analysis.

Conclusion

When compared to the younger population, pregnancies of AMA were more likely to experience poorer perinatal outcomes, such as preterm birth, failed inductions, and higher rates of caesarean sections.

Due to increased preterm births, the infants of AMA mothers were delivered 5 days earlier and 200grams lighter than the control group, but no significant difference was found for rates of SGA or nursery admission.

A cohort study with a larger sample size is likely to support the relationship between AMA and adverse perinatal outcomes.

Clinicians involved in providing maternity care need to be familiar of the increased risks of complications associated with AMA pregnancies and be more vigilant of the older primipara.

References

1. Ludford I, Scheil W, Tucker G, Grivell R. Pregnancy outcomes for nulliparous women of advanced maternal age in South Australia, 1998-2008. Aust N Z J Obstet Gynaecol 2012;52:235-241.