

A00 Switching to propofol for general anaesthetic caesarean section: one institution's experience

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Introduction: Thiopental has historically been the induction agent of choice in general anaesthesia (GA) for caesarean section (CS).¹ However unfamiliarity with thiopental in modern practice has been implicated in the increased incidence of awareness being reported in obstetric anaesthesia.² The cost and availability of thiopental are additional concerns, as is the potential for drug errors during reconstitution.³ With agreement from the neonatologists, our hospital changed from thiopental to propofol for GA CS in January 2014. We conducted this study to investigate any potential neonatal and maternal impact.

Methods: All GA CSs over a four-year period were included (thiopental group in the two years before January 2014, propofol group in the two years after). Retrospective data collection was used to detect any difference in neonatal or maternal outcomes. Data analysed with t-test or chi-squared test as appropriate.

Results: We identified 189 cases: 106 in the thiopental group, 83 in the propofol group. Interim analysis compares 78 thiopental cases with 48 propofol cases.

Table: Comparison of thiopental and propofol

	Thiopental	Propofol	P value
Apgar score <7 at 1 min	45.9%	53.7%	0.6
UA pH <7.20	33.9%	26.5%	0.5
NICU admission at term	27.1%	9.4%	0.1
MAP rise >20% from baseline	25.7%	4.4%	< 0.01
MAP fall <20% from baseline	56.3%	55.6%	0.8
Nausea	9.2%	26.7%	

UA: umbilical artery; MAP: mean arterial pressure

There were no cases of accidental awareness or failed intubation in either group.

Discussion: There was no significant difference in neonatal outcome between the two groups in terms of Apgar score <7 at 1 min, UA pH <7.20. Whilst NICU admission at term was reduced in the propofol group, this was not statistically significant at the time of interim analysis. Induction with propofol tended to result in anaesthesia which was more cardiostable, with significantly lower rates of exaggerated hypertension, which could prove useful in cases such as preeclampsia. The higher rates of nausea in the propofol group was surprising but confounding factors include opioid and nitrous oxide use.

References

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