CHANGE IN MATERNAL GENERAL ANAESTHETIC INDUCTION DRUGS ASSOCIATED WITH INCREASED NEONATAL RESPIRATORY REQUIREMENTS

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Background and aims: Historically, Caesarean sections under general anaesthesia (GA) use a classical rapid sequence induction (cRSI) with Thiopentone and Suxamethonium. In August 2016, modified RSI (mRSI) using Alfentanil / Fentanyl, Propofol and Rocuronium was introduced in our institution to avoid rare but serious maternal complications. We aimed to compare respiratory outcomes among term infants born by GA caesarian section using the two techniques.

Methods: Retrospective and prospective and pre- and post-change comparison cohort study. Continuous data were analysed using the Mann-Whitney U test and categorical with the chi-squared test. Singletons >37 weeks gestation without antenatally diagnosed congenital abnormalities or severe fetal compromise (cord pH <7.00) born by Caesarean section under GA between August 2014 and October 2017 were identified. Mothers who received induction agents other than those described were excluded.

Results: Median time to regular respirations was longer with mRSI (n=37) than cRSI (n=26) (4 vs. 2min; p=0.028), as was duration of IPPV (4.5 vs. 0min; p= 0.007). Higher admission rate to the special care baby unit was observed in the mRSI group (30 vs. 14%; p=0.211). There was no significant difference in GA-delivery time or umbilical pH.

			cRSI	mRSI	Total
SCBU admissions	No	Count	18	23	41
		%	85,7%	69,7%	75,9%
	Yes	Count	3	10	13
		%	14,3%	30,3%	24,1%
Total		Count	21	33	54
		%	100%	100%	100%

Conclusions: Term infants delivered by Caesarean section using mRSI took longer to establish regular respirations and require longer respiratory support compared with cRSI. Using mRSI might result in avoidable interventions for term babies, unnecessary separation of baby from mother, and avoidable admissions of term infants to the neonatal unit. Knowledge of GA drugs usage might help plan neonatal care requirements.