



Mode of Delivery with Successful External Cephalic Version: a case control study.

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Introduction

External cephalic version is a commonly attempted procedure for non-cephalic presentation at term.

This study was designed to provide local data on the maternal and neonatal outcomes after successful external cephalic version.

Method

A retrospective case-control study was performed at a tertiary maternity unit Australia. The population was women who underwent successful ECV, during 2011-2015. Women were excluded for planned caesarean section, multiple pregnancy, gestation <36 weeks or fetal death.

The control group were women with spontaneous cephalic presentation who would be eligible for ECV. They were matched for gestation, parity, BMI, age.

The primary outcome was vaginal delivery; and a composite of neonatal outcomes (Apgar score at 1 and 5 minutes, arterial cord blood gas and admission to SCN).

Univariate and multivariable logistic regression analysis was conducted on maternal and neonatal outcomes.

Results

There were 1533 patients eligible for ECV of which 422 were excluded. 101 cases of successful ECV were matched against 567 controls. The groups were similar in demographic data.

The study group had a higher proportion of women post-dates at delivery (20.4% vs 12.9%, $p=0.047$), and a higher rate of induction of labour (51.0% vs 37.6%, $p=0.009$).

The primary outcome, rate of vaginal delivery, was similar between the two groups (77.5% vs 79.9%, $p=0.866$). Whilst women in the study group were more likely to have babies with 1 minute Apgar score <7, this did not remain statistically significant at 5 minutes (5.1% vs 1.8%, $p=0.055$) or after adjustment for caesarean section delivery (aOR 2.62, $p=0.074$).

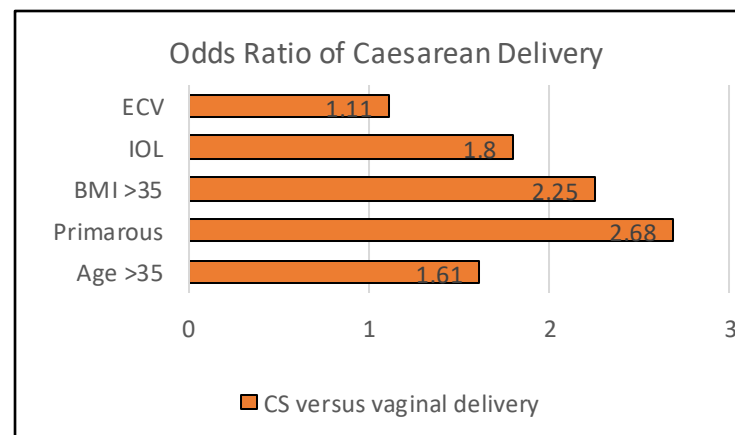


Figure 1: OR of Caesarean delivery

	N	ECV N=98	N	No ECV N=567	p-value
GA at birth	98	39.8 (36.0-42.1)	567	39.6 (36.0-42.7)	0.366
Preterm	98	3 (3.1%)	567	23 (4.1%)	0.784
Post-dates	98	20 (20.4%)	567	73 (12.9%)	0.047
Onset of labour	98		567		
spontaneous		47 (48.0%)		354 (62.4%)	0.009
induced		50 (51.0%)		213 (37.6%)	
no labour		1 (1.0%)		-	
Mode of delivery	98		567		
Vaginal delivery		76 (77.5%)		453 (79.9%)	0.866
SVD		59 (60.2%)		350 (61.7%)	
AVD		17 (17.3%)		103 (18.2%)	
CS		22 (22.4%)		114 (20.1%)	

Figure 2: Demographics and mode of delivery

Conclusion

In this case controlled study, the rate of vaginal delivery was not statistically different between groups, which now provides local data to support women and clinicians considering ECV.

An unexpected finding of increased rate of induction of labour in the ECV group is an area for further research.

References

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