

Audit of Success Rates and Adverse Outcomes Related to External Cephalic Version in a Large Tertiary Centre



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Introduction

The Term Breech Trial has changed the way clinicians manage breech presentations, contributing to increased rate of elective caesarean sections with up to 90% of breech presentations at term now delivered by caesarean section¹.

Whilst there is significant benefit in the reduction of perinatal morbidity with elective caesarean section (RR 0.33, $p < 0.0001$) compared to vaginal breech deliveries¹, this must be balanced against the long-term sequelae of caesarean section. Therefore, to reduce the rate of caesarean section, an external cephalic version (ECV) should be offered to women where it is clinically appropriate.

While a successful ECV reduces the rate of elective caesarean, there is a slightly increased rate of emergency caesarean section and instrumental delivery when compared to spontaneous cephalic presentation². The overall success rate of ECV has been reported as 40% in nulliparous women and 60% in multiparous women. However, these depend on case selection and the experience of clinical staff³.

Thus, the importance of maintaining practices such as external cephalic version (ECV) is paramount in balancing the shift towards caesarean deliveries for breech presentation.

Objectives

To evaluate the rate of success of ECVs performed and identify factors that may lead to improved success. The secondary aim is to examine rates of reversion, mode of delivery and complications with view to improve patient outcomes.

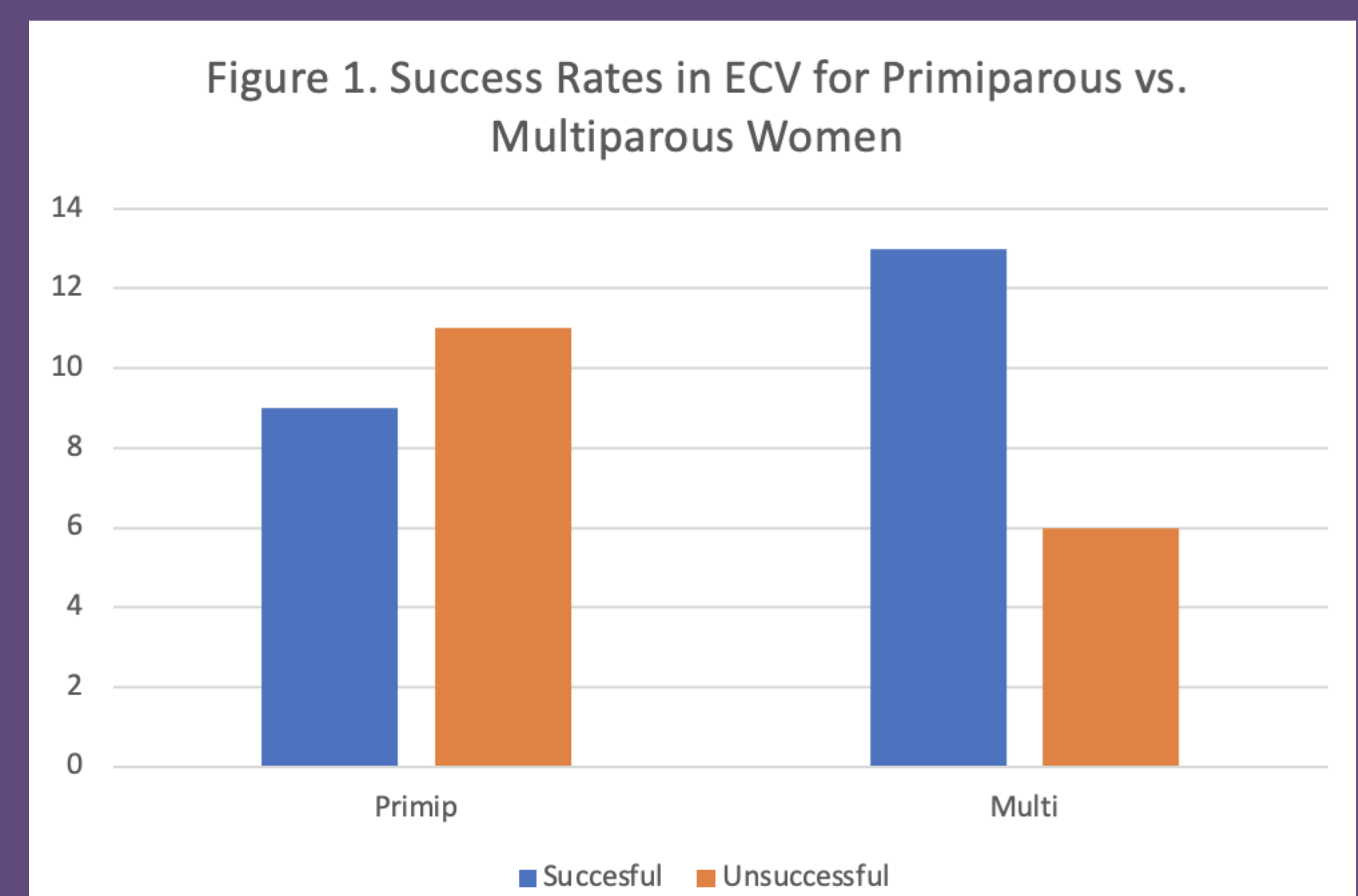
Methods

- A retrospective cohort study in a tertiary hospital was undertaken using data from the Birthing Outcome System
- Conducted over a period of 12 months with a total of 40 patients identified. Inclusion criteria: singleton pregnancies with ECVs performed from 36 weeks gestation, patients aged 19-23 years old with BMIs ranging from 20-60.
- Primary outcome measures included success rates, maternal factors and performing clinician. Secondary outcome measures delineated rates of reversion, complications post procedure, mode of delivery and neonatal outcomes.
- Univariate analysis was performed with the ANOVA/Kruskal-Wallis test as appropriate with a significant level of 0.05.

Results

Out of 70 patients booked for ECV over a 12 month period, 40 patients who underwent ECV were included. 21 patients were primiparous and 19 patients were multiparous. There was a success rate of 42.85% amongst primiparous patients, and 68.42% of multiparous patients had successful ECVs ($p < 0.057$). There was however a slightly higher rate of reversion of 10% when compared to standards. 64% of women who had a successful ECV had either an unassisted or assisted vaginal birth, with overall rates of elective caesarean section rates amongst those who received ECVs reduced to 40%.

90% of ECVs were conducted by senior clinicians ($p < 0.015$). 2.5% of neonates had APGARs < 7 at birth in the setting of elective caesareans following unsuccessful or reverted ECVs.



Conclusion

Overall, the outcomes of this study are promising with a 42.85% and 68.42% success rate for ECVs in primiparous and multiparous women respectively when conducted by experienced clinicians, in accordance with standards of practice.

There was a higher rate of reversion which may be attributed to timing of ECV and require further analysis in order to improve overall success rates and reduce subsequent rates of elective caesarean sections.

There were no documented serious or minor adverse outcomes following ECV attempts for this cohort of patients.

References

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3. Ferguson JE, 2nd, Dyson DC. Intrapartum external cephalic version. *American journal of obstetrics and gynecology*. 1985;152(3):297-8.