

The Experience and Outcomes of Rescue Cervical Cerclage at a Major Tertiary Hospital – A Retrospective Observational Study



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Introduction

A rescue cervical cerclage (RCC) is an emergency procedure aimed to prolong pregnancy and reduce risk of preterm birth. It is performed on an open cervix, and usually in the presence of exposed fetal membranes. The safety and effectiveness of this procedure remains controversial due to lack of high-quality outcome data.

Aims

This retrospective observational study aims to describe the risk factors for preterm birth, management decisions made around placement of RCC, and outcomes following placement at a tertiary hospital in Melbourne, Victoria.

Methods

Cases were identified from theatre records for the three-year study period (February 2019 – February 2022) and manually checked against eligibility criteria. Our inclusion criteria included open cervix +/- exposed membranes on physical exam, attempted RCC, and singleton and multiple pregnancies. Maternal and neonatal outcome data were obtained from universally collected hospital-level coded data. Additional clinical data, including management around the time of RCC placement was acquired by manual review of electronic maternity records by a single investigator. Quantitative measures were used to analyse all variables.

Results

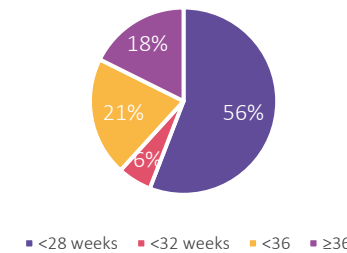
Clinical and demographic characteristics (n=30 pregnancies)	Mean ± SD (range) or (%)
Age (years)	33.0 ± 4.1 (26-40)
BMI (kg/m ²)	30.5 ± 7.0 (20-45)
Plurality	Singleton: 23 (76.6) Multiple: 7 (23.4)
Number of patients with prior preterm birth	23 (76.6)
Number of patients with history of cervical surgery	2 (6.7)
Gestational age at cerclage insertion (weeks and days)	21 ⁺¹ ± 1 ⁺⁶ (15 ⁺³ - 24 ⁺⁰)
Cervical dilatation at cerclage insertion (cm)	2.5 ± 2.0 (0.5-10)

Results

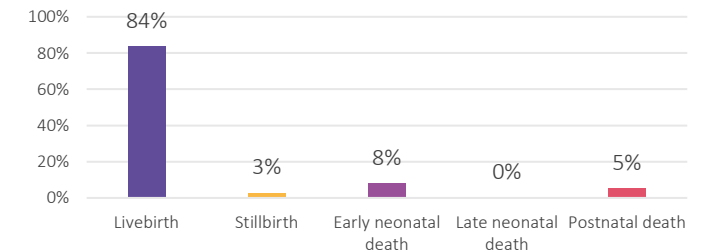
There were a total of 30 pregnancies with an open cervix within the three-year period. 27 RCCs were performed and 3 were attempted but unable to be completed. There were a total of 34 neonates delivered by women who received an RCC antenatally.

Perinatal Outcomes (n=27 pregnancies, 34 neonates)	Mean ± SD (range) or (%)
Gestational age at birth (weeks and days)	29 ⁺⁶ ± 5 ⁺¹ (20 ⁺⁶ - 39 ⁺¹)
Birthweight (grams)	1513.7 ± 1036 (422 - 5084)
Mode of birth	Vaginal: 9 (26.5) Caesarean: 25 (73.5)
Postoperative complication	3 (11.1) (Chorioamnionitis 2, cervical laceration 1)
Neonatal Intensive Care Unit (NICU) admission	27 (79.4)

Gestation at time of delivery



Birth Outcomes



Discussion

In our study, RCC prolonged pregnancy for a mean of 9 weeks of gestation, with a mean gestation at birth of 29⁺⁶ weeks. Adequate counselling should be performed regarding the high chance of extremely preterm survival and need for NICU admission, prior to RCC placement. Overall neonatal survival rates were favourable.