

Which Peripartum Factors Predict Outcome of Vacuum Delivery?

Dr. Jessica Grieger¹, Dr. Jacqui Holland¹, Dr. Thangeswaran Rudra¹

¹Royal Brisbane and Women's Hospital, Herston, QLD



RANZCOG
Annual Scientific Meeting 2022
GOLD COAST
Transformation: Making Waves

Introduction

Instrumental delivery rate is 11% in Australia. Decisions for instrumental versus emergency caesareans have significant impact on obstetric outcomes. Identifying factors which could predict the outcome of vacuum delivery would be useful for risk mitigation.

Objectives

To determine if particular peripartum and neonatal factors are predictive of an end outcome of either a successful single instrumental delivery (ventouse) versus the need to proceed to either a second instrument and/or caesarean delivery.

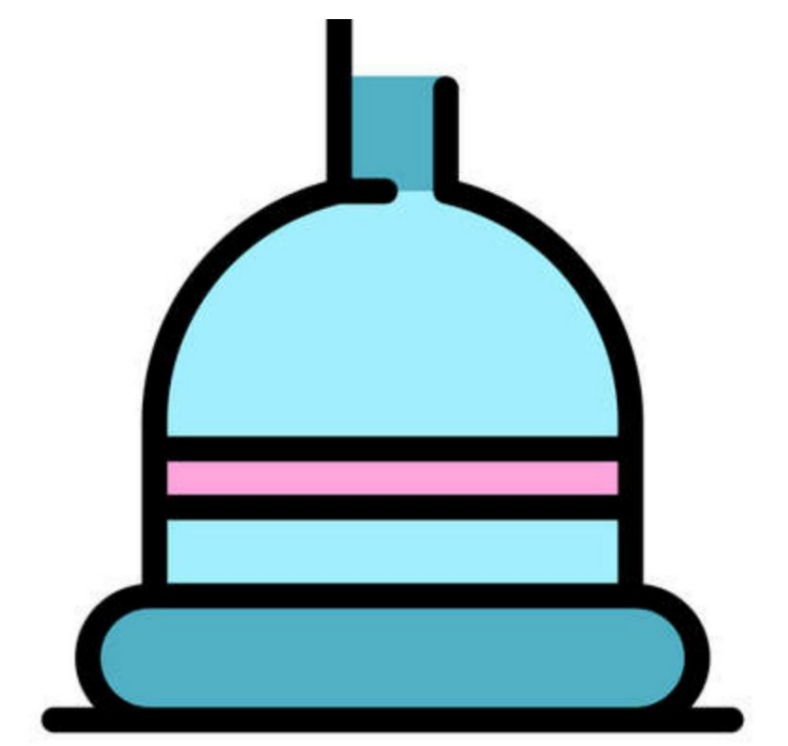
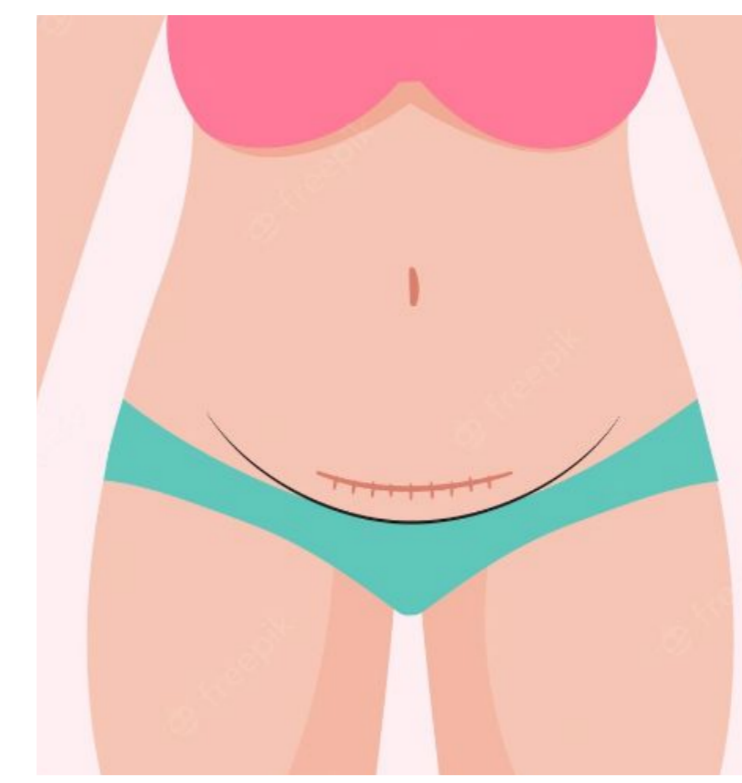
Methodology

A single centre retrospective study was performed at Royal Brisbane & Women's Hospital, QLD. Data was extracted from the hospital's records of all women between 2017 to 2020 who had a vacuum delivery attempted. The study group was those who needed a second instrument/caesarean for unsuccessful ventouse (Group A) compared to the control group who had a successful vacuum delivery (Group B).

Discussion & Conclusion

This study demonstrates that fetal head circumference, fetal station, and epidural use could be used for predicting whether vacuum delivery would be successful or not.

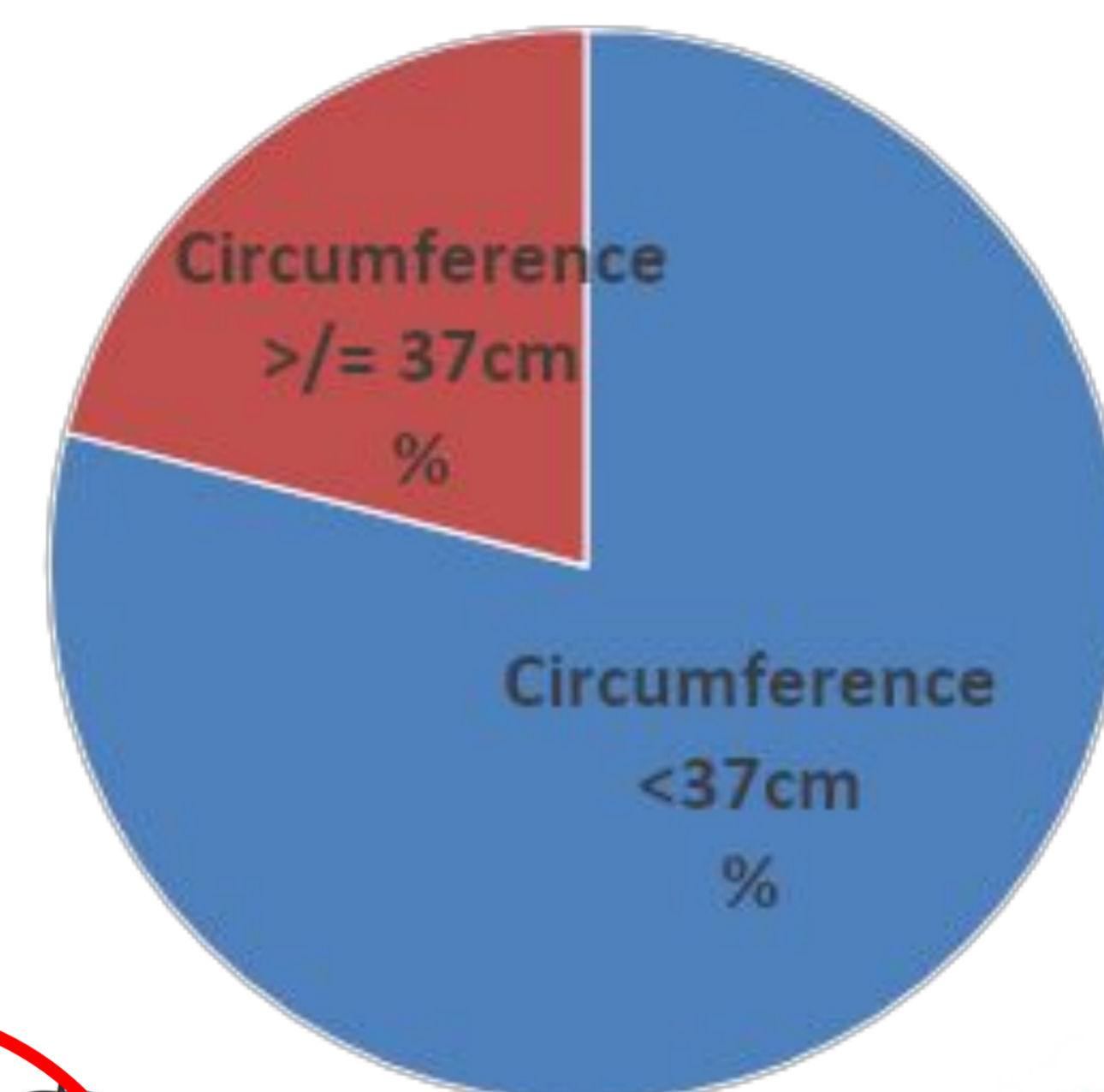
Results



GROUP A
148 Deliveries

GROUP B
1113 Deliveries

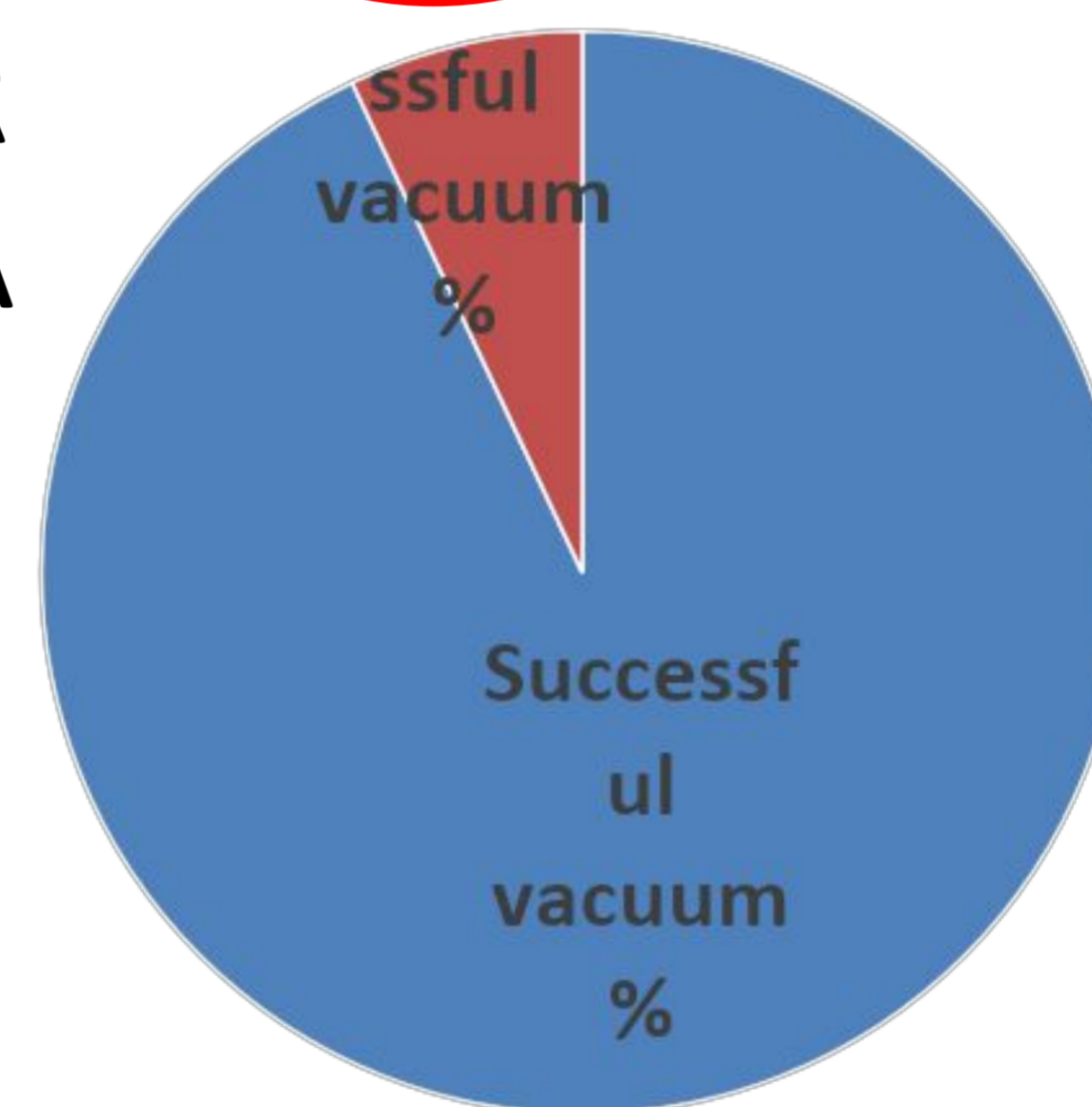
Successful Vacuum based on Fetal Head Circumference



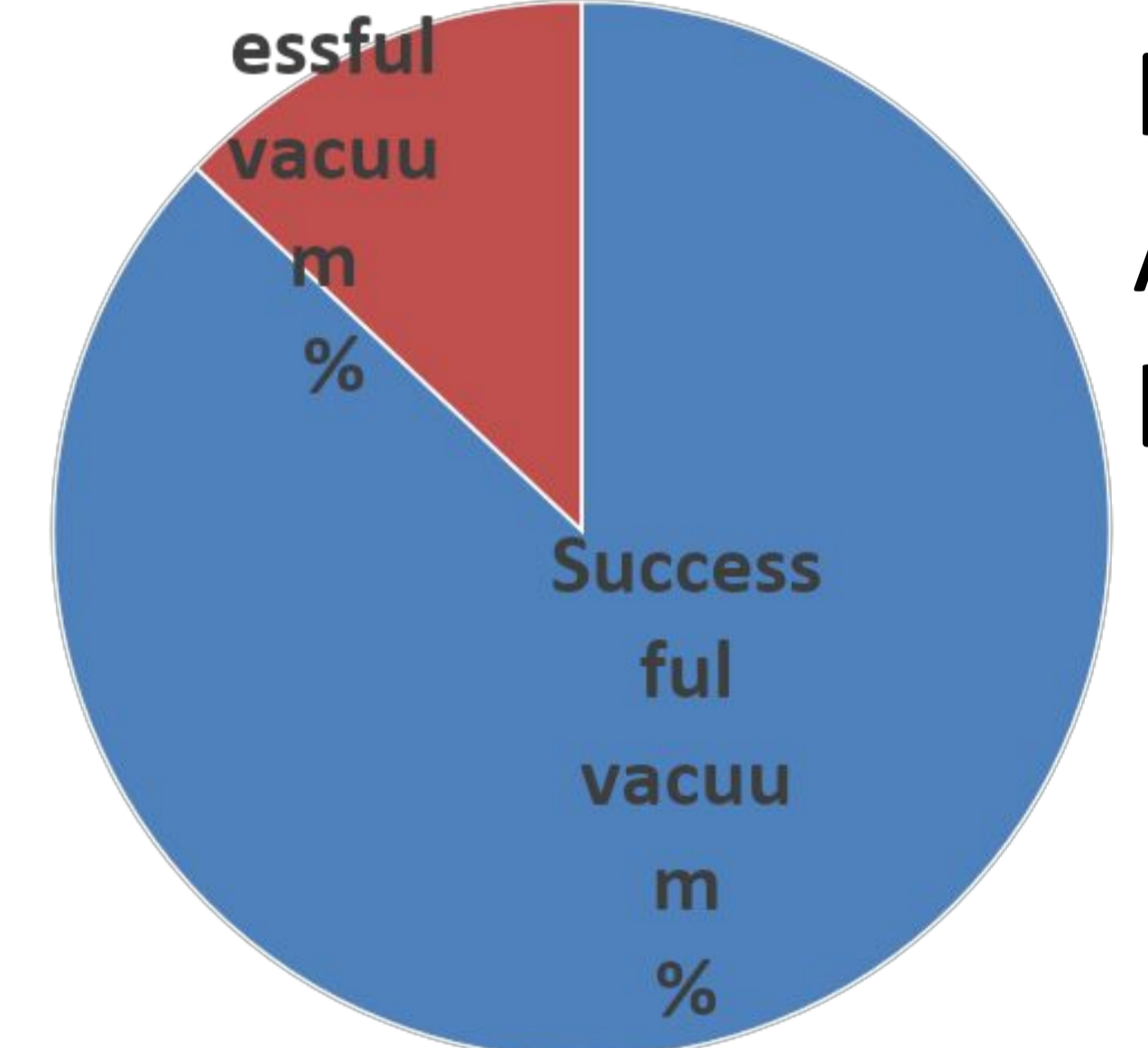
NEONATAL



Unsuccessful vacuum %

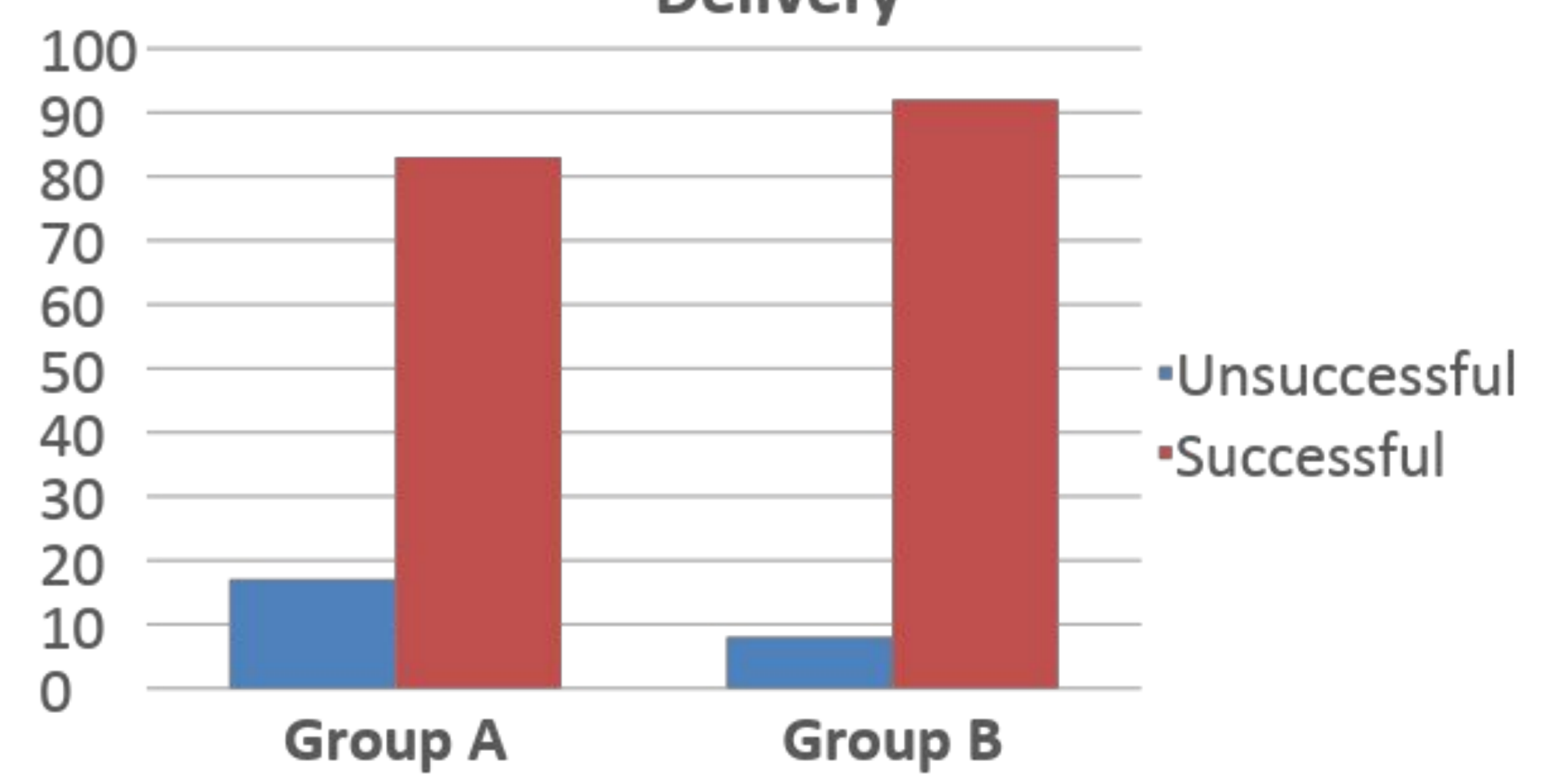


Unsuccessful vacuum %

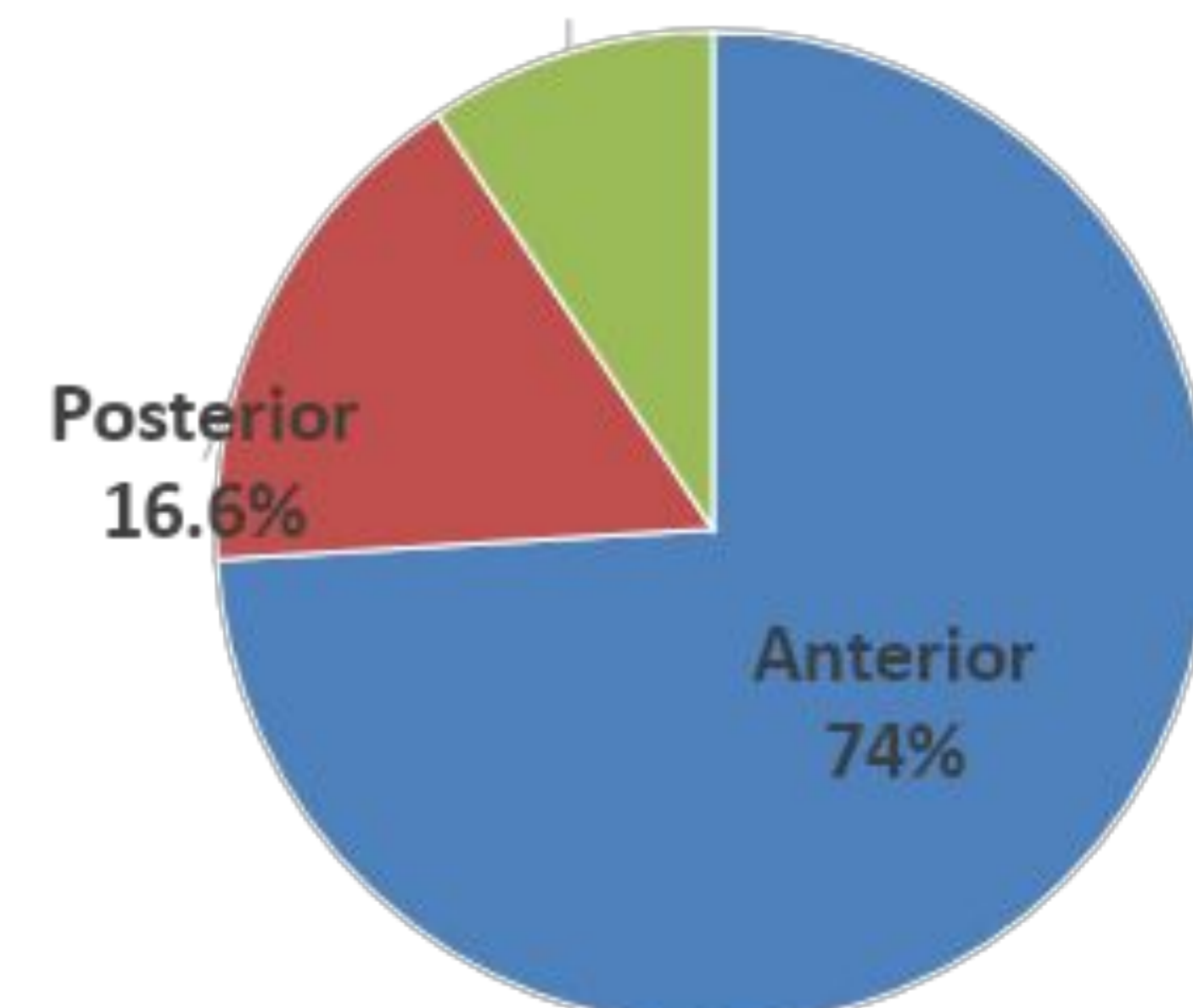


EPIDURAL

Fetal Head Station >=+2 at Time of Delivery



Successful Ventouse Delivery based on Fetal Head Position



No difference was found between the groups regarding caput or accoucheur.

References

1. The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG). Clinical Guidelines. Instrumental Vaginal Delivery. 2020.
2. Royal College of Obstetricians and Gynaecologists Guidelines (RCOG). Clinical Green Top Guidelines. Instrumental Vaginal Delivery No.26. 2011.
3. LC E. Failed instrumental delivery: How safe is the use of a second instrument? , J Obstet Gynaecol 1999(19):460-2.

