

Audit on Sequential instrumental delivery in a tertiary unit at Western Australia

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Introduction

Incidence of instrumental delivery in Australia remains relatively stable at 11% from 1990 until 2012. Whereas in New Zealand hospitals, the rate remains less than 10%.

Aim

To compare adverse effects of single instrumental delivery versus sequential in a tertiary unit at Western Australia

Method

Data is derived from STORK Perinatal Database which has been used by Maternity services in Western Australia to populate information on pregnancy and labour. We have selected data from June 2021 to December 2021 which analysed 2142 deliveries. Out of 2142 deliveries , instrumental deliveries were 167.

Discussion

Sequential instrumental delivery has increased risk to mother and baby compared to single instrument use. However, we need further study which looks at a larger data

Conclusion

Clinician needs to balance the risks of a caesarean birth following failed vacuum extraction with the risks of sequential instrumental delivery.

Result

From June 2021 until December 2021, we had 2142 deliveries including caesarean, instrumental and vaginal delivery. 814 women delivered via caesarean section which is about 38%. Caesarean rate is similar to national rate which was 37.3% in 2020. Around 162 (8%) women had successful instrumental delivery. This rate is relatively lower compared to national incidence which was 12.6%.

1166 (54%) women had successful non instrumental vaginal delivery. This number is higher than national average which was 50%.

On further analysing instrumental deliveries, we found that 88 (53%) women had ventouse delivery following 62 (37%) women who had forceps delivery. 13 (7%) women had sequential delivery. 4 women had trial of instrumental which were unsuccessful and subsequently delivered via caesarean section.

Postpartum haemorrhages (more than 500mls) were higher in sequential instrumental deliveries compared to ventouse and forceps deliveries. However, obstetrics anal sphincter injuries (OASI) were lower in sequential instrumental delivery compared to forceps delivery. Ventouse delivery had the lowest number of OASI injuries among sequential instrumental deliveries and forceps deliveries.

Seven babies who delivered via sequential instrumental deliveries required special care nursery (SCN) admission for observation, 3 babies had cephalohematoma and 2 babies had subgaleal hematoma. Overall, babies born via sequential instrumental deliveries have higher morbidity compared to ventouse and forceps deliveries.

References

1. Instrumental vaginal birth. (n.d.). Available at: <https://ranzcog.edu.au/wp-content/uploads/2022/05/Instrumental-vaginal-birth.pdf>.
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