A Battle Against Bleeding:
Comparing Carbetocin and Oxytocin in Elective Caesarean Sections

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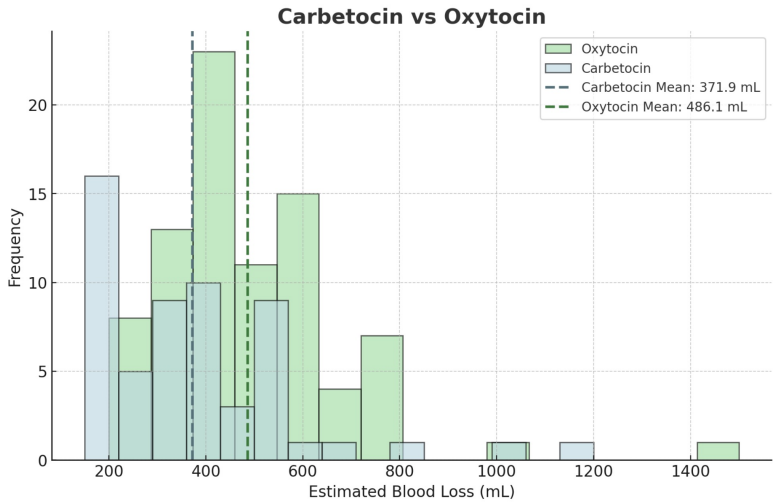
Introduction

Postpartum haemorrhage (PPH) remains a significant cause of maternal morbidity and mortality worldwide. Prophylactic uterotonic agents, such as oxytocin and its newer, longer-acting, heat-stable analogue Carbetocin, are widely used to prevent uterine atony, the leading cause of PPH.

This study aims to compare the efficacy of Carbetocin and oxytocin by evaluating the use during elective caesarean sections.

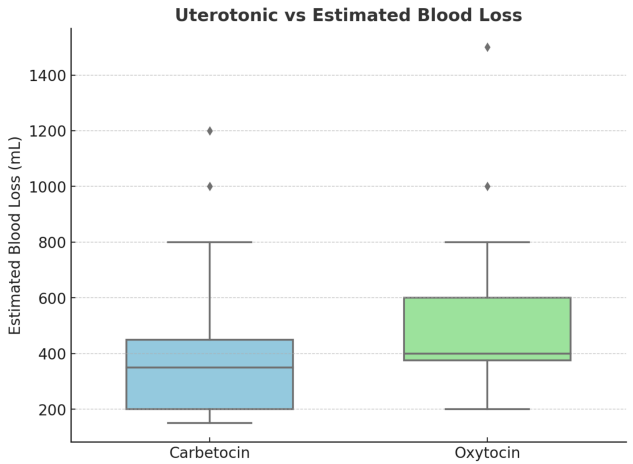
Method

A retrospective cohort study was conducted, analysing data from 140 patients who underwent uncomplicated elective caesarean sections at a tertiary care centre. Patients received either Carbetocin or oxytocin as routine prophylaxis against PPH. Key outcomes measured included the estimated blood loss (EBL), the need for additional uterotonic agents and haemoglobin drop if EBL exceeded 500mL.



Discussion

Carbetocin demonstrated superior efficacy compared to oxytocin in reducing blood loss and the need for additional uterotonic agents in elective caesarean sections. With a comparable safety profile, Carbetocin may be a more effective choice for uterine atony prophylaxis in this context. Currently the evidence base comparing these medications is limited by heterogeneity in study design and findings. Future prospective studies, along with meta-analysis, are warranted to validate these observations



Results

Average blood loss was significantly lower in the Carbetocin group compared to the oxytocin group (371ml vs 486ml). Carbetocin reduced the risk of blood loss exceeding 500mL by 48% compared to oxytocin (RR 0.52, 95% CI 0.31 – 0.87). Patients in the Carbetocin group were less likely to require additional uterotonics. While the average haemoglobin reduction, for blood loss exceeding 500mL, was comparable between groups.