## JOINT EVENT

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## Carbetocin at elective caesarean delivery: A non-inferiority study between 20 and 100 mcg

**Purpose:** The purpose of the study was to compare the efficacy of two doses of carbetocin—20 mcg and 100 mcg—in women undergoing elective cesarean delivery.

Methods: The study was conducted as a randomized double-blinded, non-inferiority study in women undergoing elective cesarean delivery under spinal anesthesia. They were randomized into two groups to receive either 20 mcg or 100 mcg of carbetocin, intravenously upon delivery of the anterior shoulder of the baby. Uterine tone was assessed by obstetrician at two and five minutes after carbetocin administration, according to a numerical verbal scale of 0 to 10 (0=atonic uterus and 10=firm uterus). If the uterine tone was considered unsatisfactory by the obstetrician and additional uterotonic was deemed necessary, this was administered according to usual practice at our hospital (oxytocin and/or ergot and/or hemabate). The primary outcome was the uterine tone at two minutes after carbetocin administration. While, the secondary outcomes were uterine tone at five minutes, use of additional uterotonics within 24 hours, blood loss, hypo/hypertension, brady/tachycardia, nausea/vomiting, chest pain/ shortness of breath, headache and flushing.

**Results:** There was no significant difference in the uterine tone [mean (SD)] at two minutes between 20 mcg [7.5 (1.9)] or 100 mcg [8.0 (1.5)] groups (p=0.06). Nine patients required additional uterotonics in the 20 mcg group, versus seven patients in the 100 mcg group (p=0.53). There was no significant difference in the uterine tone at five minutes in the two groups or the incidence of side effects. The mean (SD) estimated blood loss was 889.6 (536.2) mL in 20 mcg and 795.4 (428.8) mL in 100 mcg group (p=0.33).

**Conclusion:** Our study suggests carbetocin 20 mcg is not inferior to 100 mcg in producing adequate uterine tone in women undergoing elective cesarean delivery. Further studies are warranted in women at risk for postpartum hemorrhage.

## **Biography**

Samar Tabl is a Clinical Associate Professor at the University of Saskatchewan, Canada. She is a Graduate of the Faculty of Medicine, Ain Shams University, Cairo, Egypt, and has trained in both Egypt and Canada. She holds both Masters and PhD Degrees in Clinical Anaesthesia. She also did a Research Fellowship in Obstetric Anaesthesia at Mount Sinai Hospital, University of Toronto, Canada. Her areas of research interests include: Obstetric Anaesthesia, Ultrasound Guided Regional Techniques in Obstetric Anesthesia, Airway Management and Simulation Education.

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