

Spinal Dexmedetomidine as an Adjuvant for Cesarean Delivery - Two Cases

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Background:

- Spinal α_2 -agonists are used to prolong the duration of spinal anesthesia, reduce intraoperative visceral and somatic pain, and enhance postoperative analgesia.
- Clonidine has been extensively studied but dexmedetomidine is less used in North America.

The Anesthetic Effect and Safety of Dexmedetomidine in Cesarean Section: A Meta-Analysis

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Case Description: #1

- 55yo G1P0 with a **bleeding placenta previa** brought urgently to OR for primary CS
- Unexpected placenta accreta resulted in a cesarean-hysterectomy (**surgical duration 190min**, QBL 2500ml) with 4U RBCs and 2U FFP. No additional IV adjuvants.
- Patient remained stable in high-risk unit with **full motor block recovery in 240min**.
- Post-cesarean analgesia with acetaminophen and ibuprofen was optimal (**no oxycodone used until discharge**).

Case Description: #2

- 36yo G8P3 very anxious patient with **bleeding placenta previa** and large fibroid.
- **Surgical duration was 86min** with total QBL 800ml. No maternal bradycardia was noted, with the lowest recorded heart rate of 81. No IV adjuvants.
- The patient was comfortable with full recovery of **motor block recovery in 270min**.
- Post-cesarean analgesia with acetaminophen and ibuprofen was optimal (**no oxycodone used until discharge**).

- Spinal anesthetic with PF dexmedetomidine 4mcg (in 0.4ml dilution) was performed.

Discussion

- Spinal dexmedetomidine can be used as an adjuvant showing a stable hemodynamic profile
- In these 2 cases, spinal anesthesia was done for emergent cesarean delivery, and provided adequate anesthesia (when placement of CSE might have proved challenging due to time constraints)
- Spinal dexmedetomidine provided remarkable post-cesarean analgesia.
- Studies comparing the hemodynamic profile, duration of the block, effect on shivering, PACU stay, post-cesarean pain and opioid use between spinal clonidine vs dexmedetomidine are needed.