

## **Types of Anesthetics and IV Adjuvants Used for Cesarean Section**

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**Background/Objective:** For cesarean sections, urgency, maternal medical history, and patient preferences determine the form of anesthesia administration. Spinal anesthesia is the most common form of anesthesia administration due to its speed, patient safety, and overall reliability. Conversely, general anesthesia is a less common option due to its higher risk of difficult intubation, aspiration, and the mother being deprived of witnessing the baby's birth. Moreover, intravenous (IV) adjuvant medications, such as ketamine and propofol, are occasionally utilized to further provide analgesic and anesthetic effects. The objective of our study was to describe the different types of anesthesia and IV adjuvants used for cesarean sections.

**Methods:** We conducted a retrospective chart review of all patients undergoing cesarean sections at Riley Maternity Tower from 1/01/25 to 3/31/25. Patients with additional procedures performed were excluded. Our exposures were the different types of anesthesia used, including spinal, epidural, combined spinal-epidural (CSE), dural puncture epidural (DPE), and general anesthesia. Additionally, our outcomes of interest were the type of anesthesia selected, the incidence of intravenous adjuvants, and operative times.

**Results:** Of 278 patients undergoing a cesarean section, 160 patients (58%) received spinal anesthesia, 69 patients (25%) received epidural anesthesia, and 19 patients (7%) received general anesthesia. Additional intravenous adjuvants were required in 55 (20%) patients. Moreover, dexmedetomidine was the most frequently administered adjuvant (22%), followed by fentanyl (11%). Patients who required IV adjuvants had a longer mean operative time (63 min) compared to those who did not receive IV adjuvants (51 min).

**Conclusions:** In this single-site observational study, spinal anesthesia was the most common procedure done in patients undergoing a cesarean section (58%). General anesthesia was used in a smaller proportion of patients (7%). Approximately 1 in 5 patients (55/278) required an intravenous adjuvant. Those requiring IV adjuvants tended to have longer operative times.