

General anesthesia and systemic anesthetic adjunct medication administration rates at a level 4 maternity care center from 2019-2021: a single center retrospective study

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Introduction

- Avoidance of general anesthesia (GA) for cesarean delivery (CD) is encouraged
- There is no guidance on acceptable use of systemic anesthetic adjunct medication
- Aim: Determine rates of GA and regional anesthesia (RA) with adjunct anesthetic medication at our hospital stratified by urgency of CD

Methods

- Cesarean delivery July 1, 2019 to June 30, 2021
- Stratified into scheduled, unscheduled, FHRA
- GA: perceived lack of time, failure of regional, maternal comorbidities
- Recorded systemic anesthetic adjunct medication
- Did not consider propofol <20mg and dexmedetomidine <20 mcg as systemic adjuvant medication

Results

	Scheduled (N=609)	Unscheduled (N=678)	FHRA (N=323)
Regional anesthesia	493 (81.0%)	441 (65.0%)	156 (48.3%)
Regional anesthesia with at least one adjuvant med	89 (14.6%)	137 (20.2%)	75 (23.2%)
General anesthesia	27 (4.4%)	101 (14.9%)	92 (28.5%)
<i>Perceived lack of time</i>	0	33 (4.9%)	61 (18.9%)
<i>Failure of regional technique</i>	4 (0.7%)	46 (6.8%)	28 (8.7%)
<i>Maternal comorbidity</i>	23 (3.8%)	22 (3.2%)	3 (0.9%)

- Overall GA rate: 13.7%
- 18.7% of all CD had RA with adjunct medication. IV Fentanyl (15.5%), inhaled NO (4.3%), IV Ketamine (1.6%)
- Statistically significant lower conversion to general anesthesia when existing labor epidural was withdrawn and replaced with CSE or SSS compared to activation (8.0% vs 17.3% (p=0.015))
- The GA rate for CD was statistically different between CD that had elective and urgent indications (p<0.01) and between CD that had urgent and FHRA indications (p<0.01)

Discussion

- At our institution the overall GA rate for CD was 13.7%
- IV Fentanyl was by far the most used adjunct medication, 15.5% of CD
- Withdrawal of labor epidural catheters followed by SSS or CSE was more successful than activation of labor epidural catheters
- Limitations: retrospective dataset, limited variables collected
- Generalizability: Level IV maternal care center with a high risk patient population, OB and anesthesia residency training programs
- Adjuvant medication rates should be reported with GA rates



References

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2. D'Angelo R et al. Serious complications related to obstetric anesthesia: the serious complication repository project of the Society for Obstetric Anesthesia and Perinatology. *Anesthesiology* 2014;120:1505-12