

**C25**

Edward Lee

Advisor(s): Ivan Velickovic

### **Characterizing Factors Leading to The Use of General Anesthesia for Cesarean Delivery: A Case Series**

**Introduction:** In the United States, it is estimated that general anesthesia has been used in approximately 6% of all cesarean deliveries. However, in a recent study comprising of 50,974 women, the rate of general anesthesia in African American women was 11.2%. The aim of this study is to characterize factors leading to the use of general anesthesia for cesarean delivery in an institution which primarily treats African American patients.

**Methods:** This study is a retrospective review of patients who delivered via cesarean with the use of general anesthesia from January 2017-December 2021. Data collected included baseline demographics (age, BMI, chronic comorbidities), obstetric factors (maternal and/or fetal complications/considerations) and anesthetic factors (patient refusal, neuraxial block contraindications, block failure). Statistical analysis was performed using chi-square test and Student's t-test when appropriate.

**Results:** From 2017-2021, there was a total of 5,262 deliveries with cesarean sections accounting for 41.2%. An average of 4.2% of cesareans were performed using general anesthesia (90 deliveries) within the studied time frame. Of the 90 patients included, 79 patients (87.8%) underwent data analysis. 37 patients (46.8%) had emergency cesarean deliveries, 24 (30.4%) had neuraxial block failures, 11 (13.9%) refused neuraxial anesthesia or were uncooperative, 2 patients (2.5%) had contradictions to neuraxial block, and 5 patients (6.3%) underwent general anesthesia for other reasons not aforementioned.

**Conclusion:** Our results suggest that majority of patients who underwent a cesarean delivery using general anesthesia were due to circumstances that warranted an emergency delivery. The second highest contributing factor to general anesthesia use was neuraxial block failure. Future studies are warranted to investigate the reasons for these failure rates to improve anesthetic and clinical management of patients requiring cesarean deliveries.