

An audit about the rate of caesarean sections under general anesthesia

Introduction

Major advances in obstetric anesthesia have resulted in improved maternal and neonatal outcomes, as the main goal of anesthesia for cesarean delivery is the safety and comfort of the laboring mother and the well-being of the fetus.

Most CS are performed under regional anesthesia. It is preferred to general anesthesia because it avoids the risk of difficult or failed intubation and aspiration, reduces neonates’ exposure to the anesthetic agents, and it has the benefit of an awake mother at the time of delivery, enabling her to enjoy the birth experience and probably increase bonding.

During general anesthesia, challenges are more likely encountered in the obstetric population; these challenges include difficult airways and failed intubation, which may occur in as high as 1 in 7 pregnant women. Additionally, the incidence of aspiration in CS under general anesthesia is 1 in 500.

The three most common indications for CS under general anesthesia are the urgency of CS (30% of cases), failed regional techniques (22%), and maternal request (20%)

Audit standard

The Royal College of Anesthetists in the UK has proposed that more than 95% of elective CS and more than 85% of emergency CS should be performed using regional anesthesia.

Methods

This was a retrospective audit of all women who had CS under general anesthesia in King Abdullah bin Abdulaziz University Hospital between 1st January 2024 and 30th March 2024, representing a total of 100 Cesarean deliveries. Case notes were collected from the medical records department.

Data collected included: maternal age, gestational age, type of CS (elective or emergency, indication for GA, intraoperative complications, blood transfusion, and estimated blood loss.

Results and Discussion

Our data showed that 53% of women had elective CS, 33% had urgent CS, while the remaining 14% had emergency CS. This indicates that we have higher General anesthesia rates than what is recommended for cesarean sections. Possible explanations may be related to the indications for the choice of GA.

Regarding the indications of general anesthesia in the current CS, there was no evidence of an indication documented in the medical records in the majority of women (82%), which reflects deficiencies in documentation. Emergency situations accounted for 6.8% of cases. Failed spinal was reported in 3% of cases, and another 3% of women experienced complications of spinal anesthesia in a previous CS. These complications may include dural puncture headache, epidural abscess or hematoma, hypotension, bradycardia, backache, and others.

Insufficient patients’ knowledge and cultural concerns about the safety of regional anesthesia may be reasons why women may prefer to have general anesthesia.

Recommendations

- Better documentation is needed for the indication of the type of anesthesia.
- Preoperative patient counselling about the safety and benefits of regional anesthesia may reduce GA rate.

By: Ahmed Menshawy
Senior Clinical Fellow
Prince Charles Hospital
ahmedmenshawy2011@gmail.com

Figure 1: Anesthesia type in the previous CS

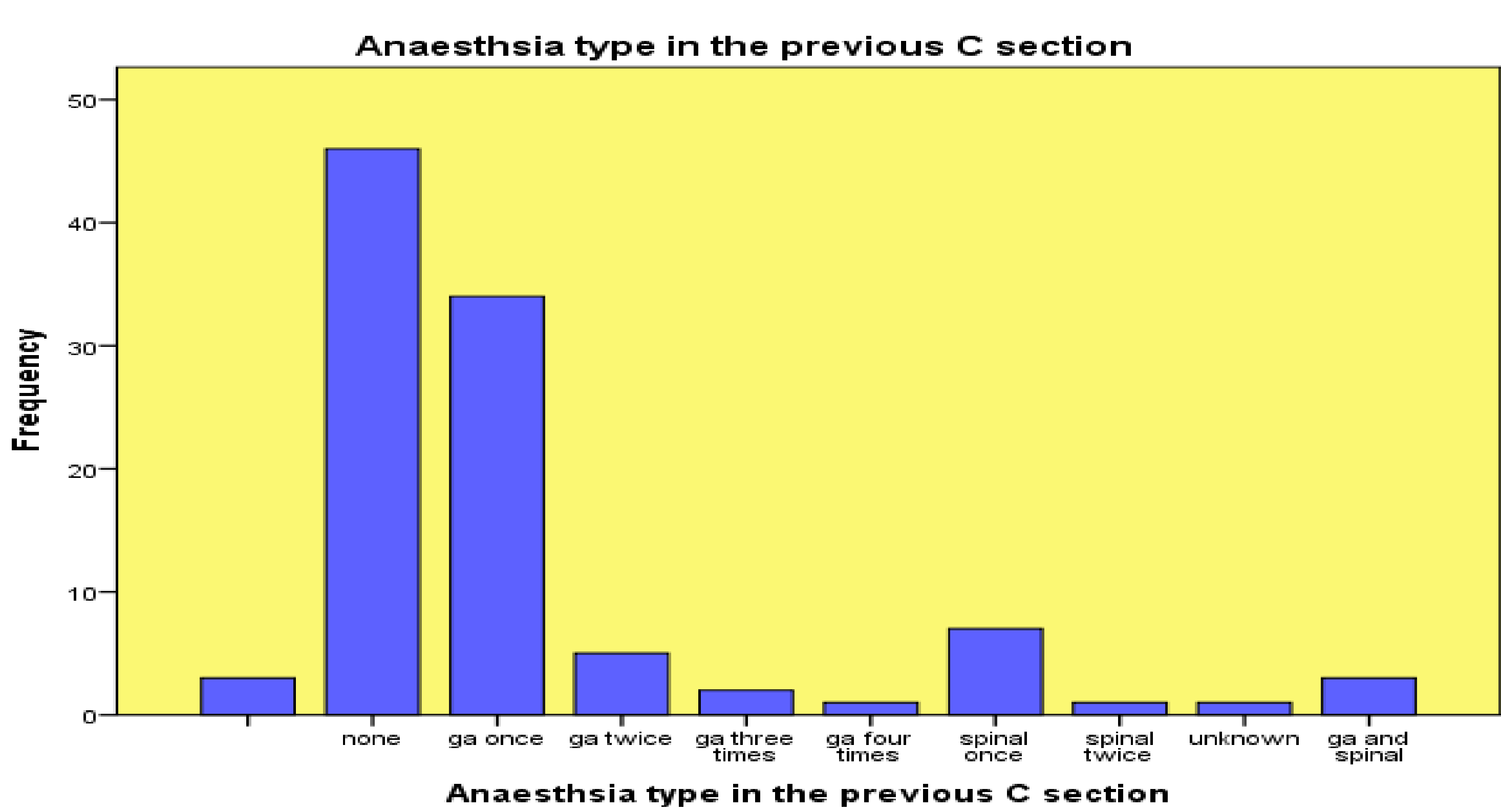


Table 2: Type of CS

Type of CS		Frequency	Percent	Valid Percent	Cumulative Percent
	Not mentioned	1	1.0	1.0	3.9
	Emergency	10	9.7	9.7	13.6
	urgent	34	33.0	33.0	46.6
	elective	55	53.4	53.4	100.0

Table 3: Indications of General Anesthesia

Indication of General anesthesia		Frequency	Percent
	Not documented	84	81.6
	Doctor preference	1	1.0
	Emergency	7	6.8
	Failed epidural	3	2.9
	Complications of previous regional anesthesia	3	2.9
	Patient request	2	1.9