

Complications of Anesthesia for Cesarean Delivery at ALzahraa maternity Teaching Hospital in ALNajaf AL Ashraf city.

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Abstract

Background general anesthesia and regional anesthetic are preferred for cesarean birth. These anesthetic treatments affect both the mother and the fetus. The choice of anesthesia for cesarean birth is influenced by the patient's physiological state, the practitioner's experience, medication availability, and equipment. Regardless, the procedure is selected for its safety and value to both mother and baby.

Methodology

A descriptive and analytic study for women during and after (CS) attending to AL Zahraa Maternity Teaching Hospital in AL Najaf Al Ashraf city was conducted to identify the complications during and after CS . During period from 15th July to 28th December. 2021. the purpose of study to assessment Complications of Anesthesia for Cesarean Delivery

Results the result showed, the mothers had high percentage 49% in the age group (30-39 years old), **Institute and above** it was 53%, Also. The results showed that 75% of the CS were emergency and 25% were Elective. Regard type of CS, as it showed that Spinal blockade was the anesthesia type for 77% of the mothers, and General anesthesia for 23%. ., however , complications of spinal anesthesia, the result were Post spinal Back Pain 23%, headache 8% Constipation were 6%, and hypotension during spinal anesthesia were 5% of mother have complications related spinal anesthesia and Mother And General anesthesia, the findings were, Sore throat with larynx pain occurred in the highest proportion of mothers 43%, nausea& Vomiting was 39%, , and constipation 26% .

Conclusion: the study found complications with general anesthesia less than spinal anesthesia.

Recommendation: larger studies would be required to assess whether the mode of anesthesia influences the incidence maternal complications outcomes.

keywords; General Anesthesia; Spinal Anesthesia, , maternal complications

1. Introduction

Cesarean delivery may be elective or emergency. In both rich and developing nations, women are having more cesarean deliveries, either at their own desire or due to problems [1].

Maternal mortality is a serious health issue in underdeveloped nations, accounting for almost 98 percent of worldwide maternal fatalities.

Various types of general anesthesia (GA) and regional anesthesia (RA) which is the most often used, like as spinal anesthesia (SA) and epidural anesthesia, are used in various types of procedures (EA), or combination spinal-epidural anesthesia can be used to achieve anesthesia during cesarean birth [2].

Regional anesthetic, Elective uncomplicated cesarean births benefit from spinal anesthesia, in particular, since it avoids airway obstruction, reduces the risk of stomach aspiration, and is very simple to administer [3, 4].

However, there are several dangers associated with regional anesthesia such as low blood pressure, anesthetic poisoning, post-dural puncture headache (PDP

H), also damage to the nerves [5-7].

However, general anaesthetic continues to be used. Utilized in some cases, particularly when regional anaesthetic is contraindicated or fails. General anesthesia has several advantages, including a patent airway, regulated breathing, and reduced cardiovascular depression [8].

GA is prone to complications such as failure intubation, failed breathing, and aspiration of stomach contents, as well as consciousness, discomfort, and fetal depression [9].

There was There is no change in the Apgar score at the 5 minute mark between regional and general anesthesia. However the researchers exposure to limitation that there is insufficient data to indicate that regional anesthesia is preferable to anesthetic in general [4, 6].

2. Methodology:

A descriptive and analytic study for women during and after (CS) attending to AL Zahraa Maternity Teaching Hospital in AL Najaf Al Ashraf city was carried out to identify the complications during and after birth (CS) .

During period from 15th July to 28thDecember.2021

Study sample: -

A purposive sample of (200) women have CS.

3. 5. Inclusion Criteria

- 1.Mother have caesarean section.
2. Agree to participate in the current study

3. 6. Exclusion criteria:

Mother have caesarean section

1. Have chronic and hemolytic disease
2. Bad past obstetric disease history.
3. Disagree to participate in the current study

Instrument of study

At Tools used to collect data by using questionnaire format

Part one of Questioner:

The demographic variables include the following: Current age, educational level, residency, occupation.

Part two of the questionnaire:

Ask women about complications in sub items, followed by questions about type of anesthesia, complications during and after anesthesia in addition, **take information of women from case sheet.**

3. Results:

Demographical and health variables

Table (1): Statistical Distribution of mothers according to their Demographics Variables. n= (100)			
Variables		CS zn=100	
		Frequency	%
Age (years)	Less than 20	8	8
	20-29	34	34
	30-39	49	49
	40 & above	9	9
	Total	100	100
Educational level	Illiterate	21	21
	Primary	12	12
	Secondary	14	14
	Institute and above	53	53
Total	100	100	
Residence	Urban	88	88
	Rural	12	12
	Total	100	100
Occupation status	House wife	72	72
	Employee	28	28
	Total	100	100

CS: Cesarean section. NVD: Normal Vaginal Delivery

Table (1) shows that the distribution of mothers with two mode of delivery according to their Demographical Variables, as it showed, the mothers with CS had high percentage 49% in the age group(30-39 years old). In item of educational level, **Institute and above** it was 53%,. The residence for The Rural the had high percentage of mothers (88% CS). While the Occupation show the housewife have percentage of mothers (72% CS).

Table (2) distribution of the mothers according to their type of delivery & the Indications of CS.	
items	N= 100

	N	%	
type of caesarean section	Elective	25	25
	Emergency	75	75

Table (2) shows that distribution of samples according to their type of delivery and the Indications of CS, as it showed that three-quarters 75% of the CS were emergency and the remaining quarter 25% were Elective.

Anesthesia & complications related anesthesia it.

Table (3) distribution of mothers according to their type anesthesia type and Complications during and after			
variables		n= 100	
		n	%
The type of anesthesia	Spinal blockade	77	77
	General anesthesia	23	23
Complications with spinal anesthesia n=77	yes	34	44%
	no	43	66%
Complications with general anesthesia. N=23	yes	21	91%
	no	2	8%

Table (3): shows showed that Spinal blockade was the anesthesia type for 77% of the mothers, General anesthesia for 23%. It also showed that 21% of the mothers Have Complications related to spinal anesthesia, while 34 % of mothers have complications related general anethia.

Table (4) distribution of mothers according to complications of general anesthesia		
complications related to general anesthesia n=23	frequency	%
Sore throat with pain larynx	10	43
Post-operative Nausea & Vomiting	9	39
Constipation	6	26
* There are more than one answer for each choose.		

Table (4) revealed revealed number of cases related to general anesthesia, the findings were, Sore throat with larynx pain occurred in the highest proportion of mothers 43%, nausea& Vomiting was 39%, , and constipation 26%

Table (5) distribution of mothers according to complications of spinal anesthesia		
complications related to spinal anesthesia n=77	frequency	%
Post spinal Back Pain	18	23
Headache	6	8
Constipation	5	6
hypotension during spinal anesthesia	4	5
* There are more than one answer for each choose		

Table (5) revealed number of cases related to spinal anesthesia, the result were Post spinal Back Pain 23%, headache 8% Constipation were 6%, and hypotension during spinal anesthesia were 5% of mother have complications related spinal anesthesia and Mother

4. Discussion

1- Anesthesia type and Complications during and after cesarean section

Concerning type **anesthesia** where as it showed that

Spinal blockade was the anesthesia type for 77% of the mothers, **General anesthesia** for 23% this correspond to Wiskott et al. [10].

Iddrisu et al. [11] reported as indicated by superior fetal and maternal outcomes, regional anesthetic appears as a preferable alternative. For cesarean deliveries, however, both regional and general anaesthetic are still utilized.

This finding disagreement with studying conducted by Abdissa et al. [12].

The high rate of present study concerning Spinal blockade as type of anesthesia agreement to studies Idris et al. [13] showed In Eritrean moms, the total satisfaction percentage with spinal anesthesia services for cesarean section was 87.9 percent, in Ethiopian 62% [14], Kenyan studies 85% [15].

Regarding complication **during and after anesthesia**, it found have complications related anesthesia, this is high compared to study was conducted by [16] that revealed the overall maternal complication rate was 30.1%, This variance might be owing to the type of obstetric emergencies, such as unintentional internal organ injury and blood transfusion, as well as the services offered for the majority of referred patients or complex births, which result in a high rate of maternal complications.

2- Maternal Complications related general anesthesia

Davarinia et al. [17] in Iran found the rate of **Larynx pain, sore throat**, after surgery is higher after general anesthesia than spinal anesthesia. That compatible with current study. Also, Gemechu et al. [18] conducted study how explain the prevalence of postoperative sore throat within 48 hours after operation was 59.6%.

In the recent study, it was the rate of **Post-operative Nausea & Vomiting** inconsistency with the study by Voigt et al. [19], were Postoperative events of nausea and vomiting were low but other study by Semiz et al. [20] how found The number of patients with nausea/vomiting was (28.2%) which the percent more than the percent of current study.

Regarding **constipation** have this result agree with result of study done by Tilahun et al. [21] and study done by Alegbeleye [22].

3- Mother's complications according to spinal anesthesia

The result related **Post spinal Back Pain** this agreement with finding of studies by Zeleke et al. [23], Lee et al. [24], Forozeshfard et al. [25], and study by Duits et al. [26].

Back pain is prevalent among the general population. Back discomfort is significantly associated with the body mass index, the size of the spinal needle, the number of attempts, and the number of bone contacts during spinal anesthesia. As a result, it is recommended to restrict lumbar puncture attempts and bone contacts while under spinal anesthetic to avoid post-spinal back discomfort. Additionally, it is prudent to use a spinal needle with a smaller diameter.

In regard **headache** this related spinal anesthesia, this result agreement with studies conducted by Syed & et al., (2017). Jabbari & et al., (2013).

Regarding **postpartum Constipation** after spinal

anesthesia which is agreement with the studies by Kuronen [27] and by Kuronen [27] how those found Constipation was most prevalent in the first few days following delivery; a few days after a caesarean section. however this result disagree with the study (Yoshida ET al., (2018).

Concerning the **hypotension** during spinal anesthesia the result correspond with study by Šklebar et al. [28] that reported the Spinal block leads to vasodilatation and consequently causes maternal hypotension, also, study done by Nigussie et al. [29] which correspond with the present result, who showed During cesarean section, hypotension occurs between five and fifteen minutes and between fifteen and twenty-five minutes. Other study support current result, a study conducted by Shitemaw et al. [30] where ladies who had a cesarean section while under spinal anesthesia suffered hypotension.

Inexperience, a lack of understanding, poor treatment, and poor patient circumstances were all important contributing causes. The majority of them could have been avoided or corrected.

5. Conclusions

About three-quarters of the CS were emergency and the remaining quarter were Elective. While, women have Spinal blockade more than those woman have General anesthesia, and more than half women participant in this study have Complications related to the anesthesia.

Complications related to general anesthesia, Sore throat with larynx pain occurred in the highest proportion of mothers, flowed by nausea& Vomiting was and constipation. And Complications related to spinal anesthesia were headache, Constipation and hypotension.

Recommendation Using different types of mass media to stimulate public awareness about complications of CS particular in PHCc .also Larger studies would be required to assess whether the mode of anesthesia influences the incidence maternal complications outcomes.

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