

SPINAL ANESTHESIA (SA) AND PATIENT SATISFACTION IN CESAREAN SECTION (CS); A COMPARATIVE STUDY

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ABSTRACT:

OBJECTIVES:

To determine satisfaction of the mothers regarding SA for CS in elective and emergency procedures at District head Quarter (DHQ) Hospital Karak.

METHODOLOGY:

It is a cross-sectional study conducted on 175 female patients were selected who had CS under SA through elective and emergency procedure regarding their satisfaction at DHQ Hospital Karak. The time duration was from December 01st 2019 - March 31st, 2020. Data was collected through a constructed questionnaire with consent of these patients. Data was entered in SPSS version 26 and was analyzed using chi-square test.

RESULTS:

A total of 175 patients were selected in the study. The overall satisfaction of SA for CS divided into 111 (63.4%) of patient were satisfied with elective CS with the chi-square test value of 8.10. Furthermore, the backpain was associated with both the procedures and were showing increase from average age 20-24 years (29.5%) and (69.2%) for 30-34 years, simultaneously. The results showed significance of p-value 0.001 for post-operative back pain.

CONCLUSION:

It was concluded that the patient had better experience with the elective procedure rather than emergency procedure. The pain was also a factor that was involved in provoking the symptoms (pain, nausea) that have negatively affecting patient perspectives about SA for CS.

KEYWORDS: Spinal Anesthesia(SA), Patient Satisfaction, Caesarean Section(CS), Technique

How to cite this article:

Pervez T. Spinal Anesthesia (SA) And Patient Satisfaction In Cesarean Section(CS); A Comparative Study. J Wazir Muhammad Inst Paramed Tech. 2021;1(1): 11 -16

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INTRODUCTION:

Elective or emergency CS have morbidity and mortality with different outcomes for maternal and new-borns. The literature defines an elective CS as an operation performed within working hours (typically

between 08:00 and 17:00) with an anesthesia team, the neo-natal care team and the entire operation team ready at the scheduled time¹. The mortality associated with hemorrhage and infection caused mainly by cesarean section CS has dramatically declined with the development of infection control measures, blood transfusions, and anesthesia techniques. Today, cesarean delivery is considered a safe operation with increasing prevalence around the world. It is estimated that around 750,000 CS operations are performed

annually in Turkey². Emergency surgeries are associated with greater number of surgical complications than elective surgeries. Similarly, emergency CS is likely associated with an increased risk of complications when compared to elective CS³. SA for CS is an old and well-established method. It was first used in obstetrics in 1901 for pain relief during vaginal delivery and became popular for CS because of its rapid onset and a high frequency of successful blockade². The advantages of regional anesthesia include an awake mother, minimal postpartum depression, avoidance of the risks of general anesthesia (especially failed intubation and aspiration pneumonitis). SA specifically has the advantages of its simplicity, small drug dose, low failure rate and rapid onset⁴. SA for CS has become increasingly popular and the recent decade has been the preferred technique for most anesthetists. The choice of anesthesia for any CS depends on multiple factors, the indication of surgery, the urgency of the operation, and patient's as well as surgeon's desire. Anesthetic, first choose the method that is believed to be safest and most comfortable for the mother, least depressant to the newborn and provides the optimal working conditions for the obstetrician. SA for CS has become increasingly popular and the recent decade has been the preferred technique for most anesthetists, patient satisfaction is one of the meaningful indicators of patient experience of health care services. Patient satisfaction is a complex, multidimensional concept, subjective and difficult outcome to measure for the quality of care and also involve emotional, physical, socio-cultural factors⁴ based on patient expectations⁵. Asking patients what they think about the care and treatment they have received is an important step towards improving the quality care and ensuring local health services are meeting patients' needs. In fact, satisfaction is measured by patients through evaluation and assessment of the experience after consuming a good service of care by health providers^{6,7}. American Society of Anesthesiologists (ASA),⁸ patient satisfaction guidelines stated that in the future, it is likely that payment for anesthesia services will depend in part on measures of

patient satisfaction. In addition to the potential for impact on provider payments, patient satisfaction surveys are playing an increasing role in competency assessment⁹. This study was carried to determine patients' perspective regarding spinal anesthesia, their level of satisfaction and the factors of dissatisfaction during caesarean deliveries. There was strong relation between patient dissatisfaction and awareness, moderate or severe post-operative pain, severe nausea and vomiting and lastly postoperative complications. It also noted that patient factors especially those with history of anesthesia especially undergone SA have greater comfort than general anesthesia¹⁰. Often, patients have been found to be more concerned with the interpersonal skills of hospital staff than with their technical skills and competence¹¹. In addition, expressions of patients are usually biased to please staff and to avoid repercussions for negative care appraisal¹². The patient factors of comfort, emotion physical independence, patient support, pain and hospital stay were shown to impact patient satisfaction¹³. Measuring factors that influence patient's satisfaction is vital to monitor the quality of care in anesthesia. The purpose of this study was to analysis the satisfaction of the mothers undergoing CS under SA. This study was carried out to determine satisfaction of the female patients undergoing CS before and after SA.

METHODOLOGY:

The study was conducted in DHQ Hospital Karak. It was convenience sampling technique, and the duration of this study was from December 01st -2019 to March 31st -2020. Total of 175 female patients were selected undergoing SA for CS. Those female patients with psychological disorders were excluded from the study. After getting ethical clearance and permission from Hospital Directors, the data was collected from these female patients regarding pre-operative and post-operative on a constructed questionnaire. Data was analyzed by using SPSS version 26. The comparison between elective and emergency procedure was done by applying

RESULTS:

chi-square test to evaluate the distribution of quantitative data. Level

of statistical significance was set at $p=0.004$.

Table 1: Cross tabulation of Caesarean Section and satisfaction

Variables		Satisfaction		Total	Chi-square	P-value
		Yes	No			
Caesarean	Elective	46 (78.0%)	13 (22.0%)	59 (100%)	8.10	0.004
	Emergency	65 (56.0%)	51 (44.0%)	116 (100%)		
Total		111 (63.4%)	64 (36.6%)	175 (100%)		

Table 2: Cross Tabulation of Age with Post-operative back pain

Variables		Post-operative Back pain		Total	Chi-square	P-value
		Yes	No			
Age	20-24	28 (29.5%)	67 (70.5%)	95 (100%)	26.75	0.001
	25-29	04 (26.7%)	11 (73.3%)	15 (100%)		
	30-34	45 (69.2%)	20 (30.8%)	65 (100%)		
Total		77 (44.0%)	98 (56.0%)	175 (100%)		

Table 3: Demographics of Patients

		Frequency	Percentage
Occupation	Employed	74	18.3
	Housewife	101	81.7
Medical History	Yes	32	49.1
	No	143	50.9
Parity	Multigravida	89	66.7
	Primigravida	86	33.7
Type of Operation	Elective	57	38.3
	Emergency	116	61.7
Anesthesia History	Yes	67	30.9
	No	108	60.1
Cesarean History	Yes	79	45.0
	No	96	55.0

DISCUSSION:

The purpose of this study was to find out the maternal satisfaction of cesarean delivery of the female patients having spinal anesthesia both elective and emergency procedure. Patient satisfaction is significant component in these different procedure is to recognize complications that patients go through from SA, which helps to enhance the healthcare and anesthesia protocols. The patients receiving SA gave a high rate of patient satisfaction score¹⁵. For elective and emergency procedure of CS in 2010, United Kingdom¹⁴ national estimates were 9.3% and 14.5% for elective and emergency CS, respectively. Elective and emergency CS rates in another study were 10.2% and 20.3%¹⁵. In our study 46% patients showed high satisfaction from SA in elective surgery. Whereas 65% patients showed satisfaction with emergency procedure. Studies showed satisfaction in 87% to 100% female patients with SA. In a recent study, low participant satisfaction with the explanation provided regarding SA. It can be explained in a study, emergency CS (76.8%) that is more, most probably the patient were in labour¹⁶.

Satisfaction with pre-anaesthesia explanations was 73.7% among participants who underwent elective CS¹⁷. Similarly, a study was conducted in Pakistan; results indicated high level of (83%) patient's satisfaction¹⁸. In Korea, the 16% of the patients were not going to accept SA if they need it again¹⁹. In a study that showed high rate of patient satisfaction (96.3%)¹⁸. In our study, patient reported, (78.0%) elective CS and (56.0%) emergency CS satisfaction. Another study reported more complaints of post-operative backache in patients¹⁶. In our study, pain was associated with the age that it was increasing with age 20-24years (29.5%) to 30-34years (69.2%) with the chi-square of 26.75. Spinal anesthesia has been favored as the best choice for elective uncomplicated CS, safe and effective due to its avoidance of the airway, less risk of aspiration of gastric content, and easy to perform but have some complications. In a recent study 68% patients reported being satisfied with their pain control²⁰. It is reported, elective CS birth experience were successful with low pain complaints as compare to the emergency CS and it is associated with patients' satisfaction²¹. To reduce emergency CS it is important to improve patients' satisfaction with childbirth. Furthermore, presently in United states 2.1% of all deliveries are completely elective CS,¹⁴ 11% is the current rate of CS.²² Our study raises an important question for obstetricians and the health care workers regarding the pregnant women, how to improve female's childbirth experience. A childbirth negative experience is associated with an increased risk of postpartum depression²⁰. Therefore, improved maternal satisfaction led to improved clinical outcomes. A study showed that the elective CS may improve the maternal satisfaction²¹. Mothers are anxious regarding newborn and they prefer SA for their delivery, during emergency procedure. Proper management for pain relief should be priority for these patients during their CS. Analgesics that are used for the management of these patients should be the fundamental element for pain management for these females²³. For long term contribution in satisfaction, it is important to have a pain management as a recommendation for the patients that might be depressed on seeing the gender of their

newborn in our society, regardless of anesthesia mode of action. A study showed, 87% patients did not recommend SA for elective CS as they were not satisfied due the pain after the procedure and these patients marked insufficient pain management²⁴. Similarly, in another study it was reported regarding SA for CS, 68% female patients were satisfied with the pain management after the procedure.²⁴ To assess the satisfaction level of these patients the health care should be of high-quality and SA with management of pain should be determined²⁵.

CONCLUSION:

Our study concluded that spinal anesthetists provide More satisfaction to the female patients that are going through caesarean delivery. It is concluded that there should be complete information regarding spinal anesthesia before surgery and the anesthetists should have good rapport with their patients. Awareness and practice change is important for the comfort of these patients to get less post-operative pain.

LIMITATIONS:

There should be multiple factors, which effect the patient satisfaction, but in this study those were not recorded. The sample size was small due to that we cannot generalize it to other population.

CONFLICT OF INTEREST: None

FUNDING SOURCES: None

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