

A SURVEY ON PATIENT SATISFACTION WITH PERIOPERATIVE ANESTHESIA CARE IN A TERTIARY CARE CENTRE

Sabin Gauchan, Chitra Thapa, Srijana Bhusal, Sneha Bimali

Department of Anesthesia, Nepal Medical College Teaching Hospital, Attarkhel, Gokarneshwor-8, Kathmandu, Nepal

ABSTRACT

Patient satisfaction is a well-established indicator of quality of medical care and an important tool for improving standards of health care. This study aimed to find the mean patient satisfaction with perioperative anaesthesia care they received. A descriptive cross-sectional study was conducted at post-anesthesia care unit (PACU) of a tertiary care centre from January 2022 to July 2022 after ethical approval from the Institutional Review Committee (Reference No.: 045-078/079). All the patients who underwent emergency and elective surgery under central neuraxial blockade, peripheral nerve blockade or general anesthesia with intubation were assessed using a 10-item predesigned questionnaire. A total of 330 patients completed the questionnaire. In our patients the interpersonal and emotional aspects related to patient satisfaction was similar with all the three types of anesthesia. But patients who received general anesthesia were less satisfied with postoperative pain and postoperative nausea vomiting management. We found that our patients were satisfied with the perioperative care in terms of interpersonal and emotional aspects. The patients who underwent surgery under general anesthesia were less satisfied in terms of physical aspects such as pain and nausea vomiting as compared to patients who underwent surgery under regional anesthesia.

KEYWORDS

Patient satisfaction, perioperative anesthesia care, tertiary centre

Received on: February 24, 2023

Accepted for publication: April 25, 2023

CORRESPONDING AUTHOR

Dr. Sabin Gauchan,
Associate Professor,
Department of Anesthesia,
Nepal Medical College Teaching Hospital, Attarkhel,
Gokarneshwor-8, Kathmandu, Nepal
Email: sabingauchan@gmail.com
Orcid No: <https://orcid.org/0000-0003-1672-4532>
DOI: <https://doi.org/10.3126/nmcj.v25i2.56051>

INTRODUCTION

Assessment of patient satisfaction is a well-established indicator of quality of medical care and an important tool for improving standards of clinical care.¹⁻³ Patient satisfaction is approached as a multidimensional construct and includes factors such as ease of anesthetic procedure, its adverse effects, emotional and interpersonal factors.⁴ As anesthesiologists, we always choose the “best” among the anesthesia techniques available for an individual patient. In our hospital general anesthesia with endotracheal intubation, subarachnoid block, brachial plexus block, combined spinal epidural are some of the common types of anesthetic techniques practiced. Are our patients satisfied with the care they receive from our team? Are we able to deliver as per their expectations? What are the areas in the perioperative period in which our performance is insufficient and we need to improve? With the objective of assessing patient satisfaction with perioperative anesthesia care from patient’s point of view we conducted this survey.

MATERIALS AND METHODS

This descriptive cross sectional study was conducted at post-anesthesia care unit (PACU) of Nepal Medical College Teaching Hospital from January to July 2022. The data collection was started after receiving ethical approval from Nepal Medical College Teaching Hospital Institutional Review Committee (Ref. No.: 045-078/079). All the patients who were 18 years or older, who underwent emergency or elective surgery under central neuraxial blockade, peripheral nerve blockade or general anesthesia with intubation if willing to participate were included in this study. Patients who required ICU admission after surgery, patients who underwent cesarean section, patients who underwent surgery under other modes of anesthesia for instance: total intravenous anesthesia, or monitored anesthesia care, patients unable to communicate with the investigator due to illness, language barrier or any other reason and patients who underwent surgery for any neurological problems were excluded from this research. The patients were interviewed just before getting discharged from PACU. Two persons were trained to collect data. None of the investigators were involved in anesthetic care of the patient. The 10-point questionnaire was used for measuring the patient satisfaction.⁵ The questions were translated to Nepali language. The participants were first explained about the nature of the study, the basis of rating, each question,

use of numerical rating scale to rate all the ten questions. All data were analyzed using SPSS-16. Mean and standard deviation were calculated for continuous data.

RESULTS

A total of 330 patients completed the questionnaire during the study period. Two hundred patients received general anesthesia, 104 patients received spinal, epidural or combined spinal epidural anesthesia and only 26 patients received peripheral nerve block.

The mean age of patients who were given general anesthesia was 41.87 ± 16.28 years, central neuraxial blockade was 46.24 ± 16.15 years and peripheral nerve blockade was 41.27 ± 14.36 years. Amongst the patients who received general anesthesia 115 (57.5%) were male and 85 (42.5%) were female. In the central neuraxial blockade group 61 (58.65%) were male and 43 (41.3%) were female. In the peripheral nerve blockade group 18 (69.2%) patients were male and 8 (30.8%) were female. In the general anesthesia group 106 (53.0%) patients were ASA 1, 89 (44.5%) patients were ASA 2 and 5 (2.5%) patients were ASA 3. In the central neuraxial blockade group 59 (56.7%) patients were ASA I, 40 (38.5%) patients were ASA II and 5 (4.8%) patients were ASA III. In the peripheral nerve blockade group 15 (57.7%) patients were ASA I and 11 (42.3%) patients were ASA II.

The mean scores for each of the individual item recorded in the three different groups are shown in Table 2. The score for pain at the site of surgery was lowest in peripheral nerve block

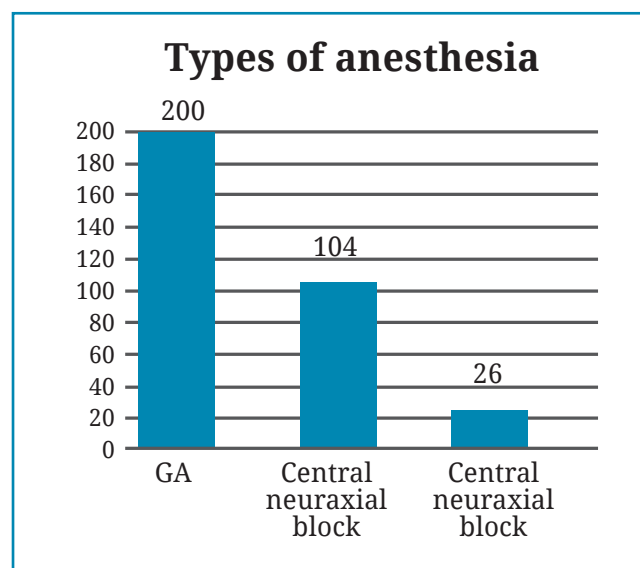


Fig. 1: Types of anesthesia

Table 1: Basic characteristics of study population

Variable	General anesthesia (n=200)	Central neuraxial blockade (n=104)	Peripheral nerve blockade (n=26)
	n (%)	n (%)	n (%)
Age in years (mean±SD)	41.87 ± 16.28	46.24 ± 16.15	41.27 ± 14.36
Gender			
Male	115 (57.50)	61 (58.65)	18 (69.23)
Female	85 (42.50)	43 (41.35)	8 (30.76)
ASA grading			
1	106 (53)	59 (56.73)	15 (57.69)
2	89 (44.50)	40 (38.46)	11 (42.30)
3	5 (2.50)	5 (4.80)	
Elective	114 (57)	91 (87.50)	26 (100)
Emergency	86 (43)	13 (12.50)	
Literacy			
Literate	157 (78.50)	82 (78.84)	26 (100)
Illiterate	43 (21.50)	22 (21.15)	0

Table 2: Patient satisfaction score

Variable	General anesthesia	Central neuraxial blockade	Peripheral nerve blockade
Kindness of caregivers	8.24 ± 0.71	8.44 ± 0.66	8.46 ± 1.17
Information given by anesthetist	8.54 ± 0.68	8.33 ± 0.61	8.54 ± 1.02
Demands promptly answered	7.76 ± 0.78	8.00 ± 0.71	8.15 ± 0.78
Attention to the patient	7.85 ± 0.68	7.91 ± 0.64	7.88 ± 0.95
Feeling safe	7.86 ± 0.75	8.03 ± 0.47	8.27 ± 1.25
Feeling relaxed	6.99 ± 0.92	7.60 ± 0.79	6.88 ± 1.63
Feeling of well being	6.98 ± 0.91	7.37 ± 0.82	7.42 ± 1.20
Feeling anxious / frightened	4.66 ± 2.08	3.60 ± 1.78	3.50 ± 2.86
Pain at the site of surgery	4.37 ± 1.60	3.08 ± 1.91	1.92 ± 1.32
Nausea / vomiting	2.76 ± 1.84	1.52 ± 1.72	0.54 ± 0.90

group (1.92±1.32), followed central neuraxial blockade group (3.08 ± 1.91) and lastly in general anesthesia group (4.37 ± 1.6). The mean score for nausea and vomiting was also lower in regional anesthesia group (lower in peripheral nerve block than in central neuraxial block) than in general anesthesia group.

DISCUSSION

Patient satisfaction is a complex concept which highly depends on the subjective judgment of a patient. As defined by Pascoe patient satisfaction is the patient's reaction consisting of an "emotional response" and "cognitive

evaluation” to the care they receive.⁶ It was only in the late 1980’s and early 1990’s, the quality assurance movement in health care began to gather momentum.⁷ Anesthesiologists have worked for years to develop objective measures of patient satisfaction with anesthesia care. But the lack of uniformly accepted methods for the assessment of patient experience in the perioperative setting leaves a gap in knowledge as to how anesthesia care may be improved.^{8,9}

In this study we used a 10- item predesigned questionnaire to measure satisfaction.⁵ This questionnaire was found to have good psychometric properties to measure patient satisfaction with good reliability and validity.^{5,10} The first four questions such as “Kindness shown to patient,” meeting of patients demands,” “attention given to patient,” and “information provided to patient” assessed the quality of interaction between anesthetist and patient. This is the measure of the interpersonal aspects related to patient satisfaction. The next four questions “feeling safe”, “feeling relaxed”, “feeling of well-being”, “feeling of anxious/frightened” assessed the emotional aspect of the patient. The last two questions assessed the physical aspects of the patient. With this questionnaire we assume to achieve a good multidimensional aspect of satisfaction.

In similar other researches the component with the lowest score of satisfaction was “information provision.”^{11,12} An Ethiopian study reported only 32.4% of the patients received information about the type of anesthesia and only 20.6% of patients received information about possible postoperative complications¹³ In our hospital preanesthetic assessment is performed in all the patients undergoing elective as well as emergency surgery. Our preanesthetic assessment starts with self-introduction. Apart from history and examination, information about the type of anesthesia chosen for the patient: whether patient will be fully unconscious (general anesthesia) or only a part of body will be anesthetized (regional anesthesia) is given. A brief description of what to expect during or after anesthesia and possible complications that may occur is explained to the patient. Thus, a good interaction with patient is started right from the preoperative period. This might be the reason for satisfactory scores in items related to interpersonal aspect in our study as strengthening the communication skills with the patients is among the important determinant factors of patient satisfaction.¹⁴

Type of anesthesia has been identified as one of the important predictors of patient’s

satisfaction.¹⁵ Better satisfaction was reported in patients who had undergone regional anesthesia as compared to patients who had undergone general anesthesia.^{5,16} They found significantly better scores in the items evaluating interpersonal, emotional and physical aspects in patients undergoing regional anesthesia as compared to general anesthesia.⁵ In our study comparison of each item among the different types of anesthesia was not possible due to the nature of the study and comparatively lesser number of patients in central neuraxial and peripheral nerve blockade group than in general anesthesia group. However, we did not find much difference in the score in the items related to interpersonal aspect in different types of anesthesia. We found better scores in the items related to emotional aspects in regional anesthesia group as compared to general anesthesia group. The reason may be that the patients undergoing regional anesthesia remain awake and can communicate and notice the active participation of the anesthesia providers in the intraoperative period. As seen in numerous studies nausea vomiting and pain scores were less in our patients who received regional anesthesia as compared to general anesthesia.^{15,17-19}

Our study has following limitations. The number of patients in peripheral nerve block and central neuraxial block group was very less as compared to general anesthesia group. The heterogeneous types of surgeries might also have influenced patient’s satisfaction level. We also recommend an assessment just before discharge from the hospital so that patient will not be biased by fear of getting a lower quality of care if they give a poor score and will be more oriented to differentiate surgical from anesthesia complications.

In our institute we found that our patients were satisfied with the perioperative care in terms of interpersonal and emotional aspects. We need to take care of the physical aspects such as pain and nausea vomiting in patients who undergo general anesthesia to further increase patient satisfaction.

Conflict of interest: None

Source of research fund: None

REFERENCES

1. Wu CL, Naqibuddin M, Fleisher LA. Measurement of patient satisfaction as an outcome of regional anesthesia and analgesia: a systematic review. *Reg Anesth Pain Med* 2011; 26: 196-208.

2. Teunkens A, Vanhaecht K, Vermeulen K, Fieuws S, Van de Velde M, Rex S. Measuring satisfaction and anesthesia related outcomes in a surgical day care center: a three-year single center observational study. *J Clin Anaesth* 2017; 43: 15-23.
3. Royse CF, Chung F, Newman S, Stygall J, Wilkinson DJ. Predictors of patient satisfaction with anesthesia and surgery care: a cohort study using the postoperative quality of recovery scale. *Eur J Anaesthesiol* 2013; 30: 106-10.
4. Moonesinghe SR, Tomlinson AA. Quality improvement and revalidation: Two goals, same strategy? *Br J Anaesth* 2011; 106: 447-50.
5. Suresh P, Mukherjee A. Patient satisfaction with regional anaesthesia and general anaesthesia in upper limb surgeries: an open label, cross-sectional, prospective, observational clinical comparative study. *Indian J Anaesth* 2021; 65: 191-6.
6. Pascoe GC. Patient satisfaction in primary health care: A literature review and analysis. *Eval Program Plann* 1983; 6: 185-210.
7. Eagle CJ, Davies JM. Current models of "quality"-An introduction for anesthetists. *Can J Anaesth* 1993; 40: 851-62
8. Fung D, Cohen MM. Measuring patient satisfaction with anesthesia care: A review of current methodology. *Anesth Analg* 1998; 87: 1089-98.
9. Neuman MD. Patient satisfaction and value in anesthesia care. *Anesthesiol* 2011; 114: 1019-20.
10. Capuzzo M, Landi F, Bassani A, Grassi L, Volta CA, Alvisi R. Emotional and interpersonal factors are most important for patient satisfaction with anesthesia. *Acta Anaesthesiol Scand* 2005; 49: 735-42.
11. Heidegger T, Saal D, Nubling M. Patient satisfaction with anesthesia- part I: satisfaction as part of outcome- and what satisfies patients. *Anaesthesia* 2013; 68: 1165-72.
12. El- Nasser GA, Mohamed N. Patient satisfaction with preoperative care and its relationship with patient characteristics. *Med J Cairo Univ* 2013; 81: 2.
13. Bloomberg: Education improves patient satisfaction and patient safety, vol 2014: Anesthesia patient safety foundation newsletter. 35-6.
14. Zarei E, Arab M, Mahmoud Ghazi Tabatabaei S, Rashidian A, Rahimi forushani A, Khabiri R. Understanding patients behavioral intentions: evidence from Iran's private hospitals industry. *J Health Organ Manag* 2014; 28: 795-810.
15. Alsaif A, Alqahtani S, Alanazi F, Alrashed F, Almutairi A. Patient satisfaction and experience with anesthesia: a multicenter survey in Saudi population. *Saudi J Anaesth* 2018; 12: 304-10
16. Lehmann M, Monte K, Barach P, Kindler CH. Postoperative patient complaints: a prospective interview study of 12,276 patients. *J Clin Anesth* 2010; 22: 13-21.
17. Fung D, Cohen MM. Measuring patient satisfaction with anesthesia care: a review of current methodology. *Anesth Analg* 1998; 87: 1089-98.
18. Vural C, Yorukoglu D. Comparison of patients satisfaction and cost in spinal and general anesthesia for lumbar disc surgery. *Turk Neurosurg* 2014; 24: 380-4.
19. Greimel F, Maderbacher G, Baier C et al. Multicenter cohort study of 15326 cases analyzing patient satisfaction and perioperative pain management: general, regional and combination anesthesia in knee arthroplasty. *Sci Rep* 2018; 8: 3723.