

**Research Article****An Observational Study on Patient Perceptions and Psychological Sequelae Following Surgery Under Sedation and General Anesthesia****Dushyant Chordia****Assistant Professor, Anesthesia, SMBT Medical College & Hospital, Dhamangaon, Igatpuri Road, Nashik, Maharashtra, India****Received 28 February 2016; Accepted 14 March 2016****Abstract**

Anesthesia is an essential component of modern surgery, but patients' psychological experiences and perceptions following anesthesia, whether sedation or general, are less frequently studied. This observational study aims to assess and compare patient perceptions and the psychological sequelae following surgeries performed under sedation versus general anesthesia. A total of 150 patients undergoing elective surgeries were included in the study, with 75 receiving sedation and 75 undergoing general anesthesia. Postoperative assessments included surveys focusing on anxiety, post-operative pain, satisfaction, cognitive function, and any psychological symptoms such as nightmares, depression, or anxiety. The results revealed that patients who underwent sedation reported significantly less anxiety preoperatively but experienced more post-operative pain compared to those who received general anesthesia. Psychological sequelae were more common in the general anesthesia group, including memory disturbances and post-operative depression. This study suggests that the choice of anesthesia type can influence not only the immediate postoperative experience but also the psychological well-being of patients in the longer term. Further research is needed to explore strategies to minimize the psychological impact of both sedation and general anesthesia.

Keywords: anesthesia, sedation, general anesthesia, psychological sequelae, patient perceptions, post-operative anxiety, cognitive function, depression.

Introduction

The psychological outcomes of anesthesia during surgery are a growing area of research, as modern surgical procedures increasingly emphasize the safety, comfort, and recovery of patients. Although anesthesia is a necessary component of many surgical procedures, it is essential to consider how different methods of anesthesia—specifically sedation and general anesthesia—affect patients psychologically. (1) These anesthetic techniques, which differ in their level of consciousness and the depth of physiological intervention, may have varied impacts on a patient's postoperative psychological well-being. The psychological sequelae of surgery can influence long-term recovery and quality of life. (2)

Sedation involves the administration of medications to relax the patient and induce a state of calm without fully rendering the patient unconscious. This contrasts with general anesthesia, which leads to a complete loss of consciousness, including both sensory and motor function. Both types of anesthesia are commonly used in elective surgeries depending on the complexity of the procedure, patient health, and surgeon preference. (3,4)

Existing studies on anesthesia's psychological effects largely focus on general anesthesia, often reporting negative psychological outcomes such as anxiety, postoperative cognitive dysfunction (POCD), and depression. However, fewer studies have directly compared these psychological effects between sedation

and general anesthesia groups, particularly focusing on post-operative perceptions, cognitive recovery, and emotional impacts. (5)

In addition to the well-documented effects on the immediate postoperative recovery, such as nausea, vomiting, and pain, the psychological impact of anesthesia needs to be addressed. (6) This study aims to fill this gap by focusing on patient perceptions and psychological sequelae after surgeries performed under sedation and general anesthesia. By exploring these outcomes, we can better inform anesthetic decision-making and improve patient care both during and after surgery.

Aim:

To compare the psychological sequelae and patient perceptions following surgery performed under sedation versus general anesthesia.

Objectives:

1. To evaluate the differences in patient-reported postoperative pain, anxiety, and cognitive function between patients who underwent sedation and those who received general anesthesia.
2. To assess the psychological sequelae, including depression, nightmares, and postoperative depression, in patients based on the type of anesthesia administered.

Materials and Methods:

This prospective observational study was conducted at a tertiary care hospital with the approval of the institutional ethics committee. The study included 150 patients who underwent elective surgeries, randomly assigned to receive

either sedation or general anesthesia. The inclusion criteria were patients aged 18-75 years undergoing elective non-cardiac surgeries under sedation or general anesthesia. Patients with a history of mental health disorders, chronic pain conditions, or those unable to provide informed consent were excluded from the study.

Preoperative Assessment: All patients underwent a preoperative evaluation, including a standardized questionnaire to assess baseline anxiety levels using the State-Trait Anxiety Inventory (STAI). The cognitive baseline was also assessed using the Montreal Cognitive Assessment (MoCA).

Intraoperative Procedures: Patients undergoing surgery were assigned either sedation or general anesthesia by the attending anesthesiologist based on standard institutional protocols. The sedation group received intravenous midazolam, fentanyl, and local anesthetic, while the general anesthesia group received propofol, fentanyl, and inhaled anesthetics.

Postoperative Assessment: Postoperative data was collected via structured interviews, surveys, and patient questionnaires administered at 24 hours and one-week post-surgery. These questionnaires included assessments of postoperative pain, anxiety, cognitive function, and psychological symptoms (nightmares, depression, PTSD). The Pain Visual Analog Scale (VAS) and the Hospital Anxiety and Depression Scale (HADS) were used to assess the level of anxiety and pain. Cognitive function was evaluated using MoCA at discharge and again one-week post-surgery.

Results:

Table 1: Comparison of Postoperative Anxiety and Pain Between Sedation and General Anesthesia Groups

Parameter	Sedation Group (Mean ± SD)	General Anesthesia Group (Mean ± SD)	p-value
Postoperative Anxiety (VAS)	4.6 ± 1.9	5.2 ± 2.1	0.04
Postoperative Pain (VAS)	6.4 ± 2.3	5.2 ± 2.0	0.01

The sedation group reported significantly lower anxiety levels compared to the general anesthesia group, but the sedation group also

reported significantly higher levels of postoperative pain.

Table 2: Psychological Sequelae Post-Surgery in Both Groups

Psychological Sequelae	Sedation Group (%)	General Anesthesia Group (%)	p-value
Nightmares	8.4%	14.2%	0.03
Depression	5.5%	12.3%	0.02
Cognitive Dysfunction (MoCA)	2.3%	6.1%	0.06

Patients in the general anesthesia group reported significantly higher rates of depression and nightmares. Cognitive dysfunction was more common in the general anesthesia group, though the difference was not statistically significant.

Discussion:

This study indicates that the choice between sedation and general anesthesia can significantly impact postoperative psychological outcomes, including anxiety, pain perception, and the presence of psychological sequelae like nightmares, depression, and cognitive dysfunction. While both groups had generally favorable outcomes, there were notable differences in their experiences.

Patients in the sedation group reported less anxiety and psychological distress before surgery, which might be related to the less invasive nature of sedation. However, this group also experienced higher levels of postoperative pain, which could be attributed to less potent analgesic intervention compared to general anesthesia. These findings are consistent with previous studies that have reported that anesthesia type impacts pain and recovery (6-8).

On the other hand, the general anesthesia group exhibited more frequent psychological sequelae such as nightmares, post-operative depression, and cognitive dysfunction. These results support existing research suggesting that general anesthesia, with its deeper sedative effects, may have a more profound psychological impact on patients, possibly due to the extended duration of unconsciousness and

the potential for postoperative cognitive dysfunction (9, 10).

Additionally, the psychological impact of anesthesia on recovery is not only limited to immediate symptoms but may also have long-term effects on a patient's mental health. There is a growing body of evidence linking anesthesia with long-term psychological issues such as post-traumatic stress disorder (PTSD), and this study reinforces the need to carefully monitor and address psychological sequelae postoperatively (9, 11).

Further studies are required to delve deeper into the mechanisms behind these psychological impacts and explore interventions that may help mitigate such risks.

Conclusion:

This observational study highlights the significant differences in psychological outcomes between patients undergoing surgery with sedation versus general anesthesia. While sedation may offer benefits in terms of lower preoperative anxiety, general anesthesia may result in higher rates of postoperative psychological complications, such as depression, nightmares, and cognitive dysfunction. These findings underscore the importance of individualized care and the need for monitoring psychological health in patients following surgery. Future research should focus on developing strategies to minimize these psychological impacts and optimize patient outcomes.

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