



ORIGINAL RESEARCH PAPER	General Surgery
THORACIC SEGMENTAL SPINAL ANAESTHESIA IN PATIENTS UNDERGOING SURGERY FOR FIBROADENOMA OF BREAST - A CASE SERIES	KEY WORDS: Segmental Anaesthesia, Analgesia, Blockade.

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ABSTRACT	Introduction: Breast surgery is associated with moderate-to-severe postoperative pain, nausea, and vomiting. For this, neuraxial anaesthesia might be a better alternative to general anesthesia (GA) providing superior perioperative analgesia with higher patient satisfaction and lesser incidence of nausea, vomiting. Segmental Thoracic Spinal anaesthesia is a realistic, reliable, and reasonable anaesthesia technique that can be implemented for abdominal and thoracic surgeries. Additionally, it has fewer postoperative complications and superior patient satisfaction. Aims and Objectives:- Aims: To evaluate the safety and efficacy of thoracic segmental spinal anaesthesia in patients undergoing surgery for fibroadenoma of breast. Primary Objectives: To Evaluate the duration of perioperative analgesia Assess intraoperative hemodynamic stability. Secondary Objectives: Determine the adequacy of surgical anesthesia. Patient satisfaction during intraoperative and postoperative period. Monitor the incidence of perioperative complications. Methodology: After getting approval from Institutional Ethics Committee, the study was conducted. Study Design – Prospective Randomised Controlled Study, carried out in Dept. of General Surgery, Government General Hospital, Ananthapuramu, from November 2025 to May 2026, in 10 Patients scheduled to undergo breast surgery for fibroadenoma. Results & Conclusion: Segmental thoracic spinal anesthesia technique provides better satisfaction with superior postoperative analgesia and fewer complications in patients undergoing breast fibroadenoma surgery done in experience hands.
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INTRODUCTION Breast surgery is associated with moderate-to-severe postoperative pain, nausea, and vomiting. For this, neuraxial anaesthesia might be a better alternative to general anesthesia (GA) providing superior perioperative analgesia with higher patient satisfaction and lesser incidence of nausea, vomiting. Segmental Thoracic Spinal anaesthesia is a realistic, reliable, and reasonable anaesthesia technique that can be implemented for abdominal and thoracic surgeries. Additionally, it has fewer postoperative complications and superior patient satisfaction. AIMS AND OBJECTIVES Aims: To evaluate the safety and efficacy of thoracic segmental spinal anaesthesia in patients undergoing surgery for fibroadenoma of breast. Objectives: Primary Objectives: - To Evaluate the duration of perioperative analgesia - Assess intraoperative hemodynamic stability. Secondary Objectives: - Determine the adequacy of surgical anesthesia - Patient satisfaction during intraoperative and post-operative period - Monitor the incidence of perioperative complications. MATERIALS AND METHODS After getting approval from Institutional Ethics Committee, the study was conducted. Study Design – Prospective Randomised Controlled Study Study Place– Government General Hospital, Ananthapuramu. Study Period – November 2025 to May 2026 Study Population- Patients scheduled to undergo breast surgery for fibroadenoma.	Sampling Technique – Case series Sample Size – 10 The present study enrolled 10 female patients scheduled to undergo breast surgery for fibroadenoma. The patients received segmental thoracic spinal anesthesia with 0.5% isobaric levobupivacaine with 15mcg of fentanyl at T4–T5 intervertebral space. Levobupivacaine is a potent, longer, longer-acting local anaesthetic. Fentanyl causes less cephalad effects due to its rapid clearance and potentiates the effects of local anaesthetics. Sensory block was achieved from T2-T6 segments. Patient haemodynamics were maintained intraoperatively. RESULTS Case Series: Case series was done in ten female patients of ASA I / II with breast pathology posted for minor breast surgery like Fibroadenoma excision. Written informed consent from the patient was taken and proper pre- anaesthetic evaluation and routine investigations were done. On arrival to the operating room ECG, NIBP and Pulse oximeter were connected. Thoracic segmental spinal anesthesia was given at T4 - T5 level with 25G Quincke's Needle and 1.8-2ml of 0.5% Isobaric
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levobupivacaine with 15mcg of fentanyl was given.

Patients were placed in the neutral position and sensory block was achieved from T2 – T6 level.

CASE NO	AGE	ASA GRADE	DIAGNOSIS	DURATION OF ANALGESIA	COMPLICATION
1	29Y	1	Fibroadenoma of size 4*5cm	6.35	None
2	32Y	1	Recurrent fibroadenoma of size 4*5cm	6.25	None
3	28Y	1	Fibroadenoma of size 5*5cm	6.3	None
4	35Y	2	Fibroadenoma of size 4*5cm with controlled HTN	5.2	None
5	30Y	1	Recurrent fibroadenoma of size 5*5cm	6.1	None

CASE NO	AGE	ASA GRADE	DIAGNOSIS	DURATION OF ANALGESIA	COMPLICATIONS
6	36Y	1	Fibroadenoma of size 5*6cm	6.00	None
7	38Y	2	Recurrent fibroadenoma of size 4*5cm with controlled DM2	5.8	None
8	30Y	1	Fibroadenoma of size 4*6cm	6.45	None
9	28Y	1	Fibroadenoma of size 4*4cm	6.20	None
10	26Y	1	Recurrent fibroadenoma of size 4*5cm	6.35	None

Thoracic segmental spinal anaesthesia was successfully administered in all patients undergoing surgery for fibroadenoma of the breast. Adequate sensory blockade corresponding to the surgical field was achieved without the need for conversion to general anaesthesia.

Intraoperative haemodynamic parameters were maintained, stable throughout the procedure.

All of our patients were hemodynamically stable and satisfied with anaesthesia and analgesia at the postoperative period. The average total dose requirement was: 1.8-2ml of isobaric 0.5% levo bupivacaine with fentanyl 15mcg.

The quality of surgical anaesthesia was satisfactory in all cases with effective postoperative analgesia and minimal requirement for rescue analgesics in the immediate postoperative period.

Patient satisfaction was good, and early postoperative recovery and ambulation were noted in all patients.



CONCLUSION

Segmental thoracic spinal anesthesia technique provides better satisfaction with superior postoperative analgesia and fewer complications in patients undergoing breast fibroadenoma surgery done in experience hands.

We have found that segmental spinal anaesthesia for minor breast surgery performed at T5 level was effective and associated with minimal haemodynamic instability and a high patient satisfaction rate.

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