Analgesic efficacy of Retrolaminar plane block in patients undergoing breast surgeries: A Case Series

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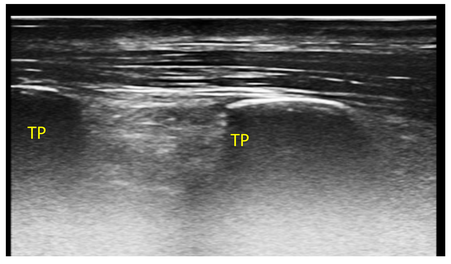
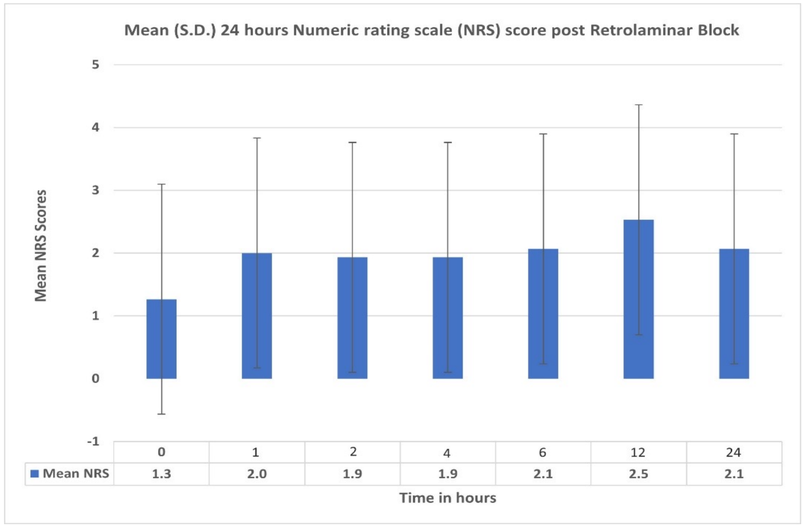
Background and Aim

Regional anaesthesia (RA) has been found beneficial for reduction of cancer recurrence. A study has found that patients who received paravertebral block (PVB) with general anaesthesia had four times greater recurrence-free survival in comparison to others who received intravenous patient-controlled analgesia. Retrolaminar block is a thoracic truncal block, that produces analgesia for thoracic and abdominal wall surgeries There is limited knowledge about the actual distribution of retrolaminar plane injectates. This series aimed to determine dermatomal spread and analgesic efficacy by measuring perioperative analgesic consumption and pain scores.

Method

After informed consent, RLB was performed in a sitting position at the level of T4 with an injectate of 0.25% Ropivacaine and 1% lignocaine with adrenaline (30 ml). 30 mins after the block, loss of sensation to cold and pinprick was assessed in the T1-T12 dermatomal levels in the parasternal, midaxillary and paravertebral line using the following grades: 0= no sensation felt, 1= can feel wet but not cold, can feel touch but no pain, 2= can feel cold and pain on pin prick. Sensations was compared to unblocked site. Once the patient awakens, the pain was assessed by an 11-point NRS scale at 1, 2, 4, 6, 12, and 24-hours post-surgery. All the patients were connected to a PCA device so that they could self-administer fentanyl boluses. At 24 hours post-surgery the total analgesic consumption was noted, and the Patient satisfaction was on a 5-point Likert scale





Results

Fifteen females with a mean (S.D.) age of 45.8(14.6) yrs, weight 60.7(13.6) kg, height 156.3(6.5) cm and BMI 25(5.5) kg/m^2. The average duration of block performance was 2.43 minutes.12 out of 15 patients had no sensation to cold or pinprick from T2 to T9 dermatomal level. The mean (S.D.) intraoperative and total 24-hour fentanyl requirement was 25.3(39.4) mcg and 35(40) mcg. Nine out of 15 patients did not require intraoperative fentanyl. The mean NRS in 24 hours was never more than 2.5 (fig 1). The average duration of the block lasted for 14.9(10.4) hours. The average patient satisfaction score was good

Conclusion

Retrolaminar Plane Block (RLB) is effective in breast surgeries.
Provides low perioperative pain scores and reduced opioid consumption.
Patients report high satisfaction with the analgesic efficacy of RLB.

References

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