



Perioperative Regional Anesthesia for a Forequarter Amputation in a Patient with Metastatic Non-small Cell Lung Cancer

Ali Berjaoui, MD, Matthew Coscia, MD , Stefan Trela, MD



Introduction

-Interscapulothoracic amputation "forequarter amputation" is a surgical procedure involving removal of the entire arm, shoulder blade, and part of the clavicle for severe cancers or extensive trauma.

-Pain control can be challenging with high prevalence of both residual limb pain and phantom limb pain especially in patients with chronic pain.

Pain Regimen

- Preoperative pain regimen consisted of:

- Morphine SR 30 mg BID
- Pregabalin 100mg BID
- Oxycodone 10mg every 4 hours PRN for breakthrough pain
- Methocarbamol 750mg daily for his muscle spasms.

-Prior to his surgery:

- Interscalene brachial plexus block
- Erector spinae plane block at the level of T2 and T4 using were performed.

-Intraop:

- 100 mcg of fentanyl on induction

-Postop day 1&2:

- No incisional pain
- Phantom limb pain rated at 3/10
- Occasional breakthrough pain reaching 8/10
- Required 5 doses of 10mg oxycodone and 5 doses of 0.5mg IV hydromorphone

Discussion & Conclusion

-There are published case reports which describe different regional anesthesia techniques for upper extremity amputations including:

- Paravertebral approach
- Use of peripheral nerve catheters
- Single shot interscalene block with local infiltration at thoracic incision sites

-Liposomal bupivacaine provides analgesia for around 72 hours in regional anesthesia but the clinical significance has yet to be studied in complex surgeries like forequarter amputation.

-This study describes another approach with long-acting single shot technique.

Case

-63 year-old male with history of metastatic NSCLC with extensive involvement of the left proximal humerus, axilla, periscapular area, requiring radiotherapy resulting in:

- Massive lymphedema
- Chronic pain described as "lightening bolts"
- Recurrent bleeding at multiple sites

- Admitted for forequarter amputation aimed at improving quality of life.

ESP Block

15ml of 0.25% bupivacaine and 5 ml of liposomal bupivacaine per level

Interscalene Block

10ml of 0.5% bupivacaine and 10 ml of liposomal bupivacaine

References

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