



Peripheral Nerve Catheters as Adjunct to Enhance Patient Satisfaction in the Chronic Pain Patient with Extreme Opioid Tolerance

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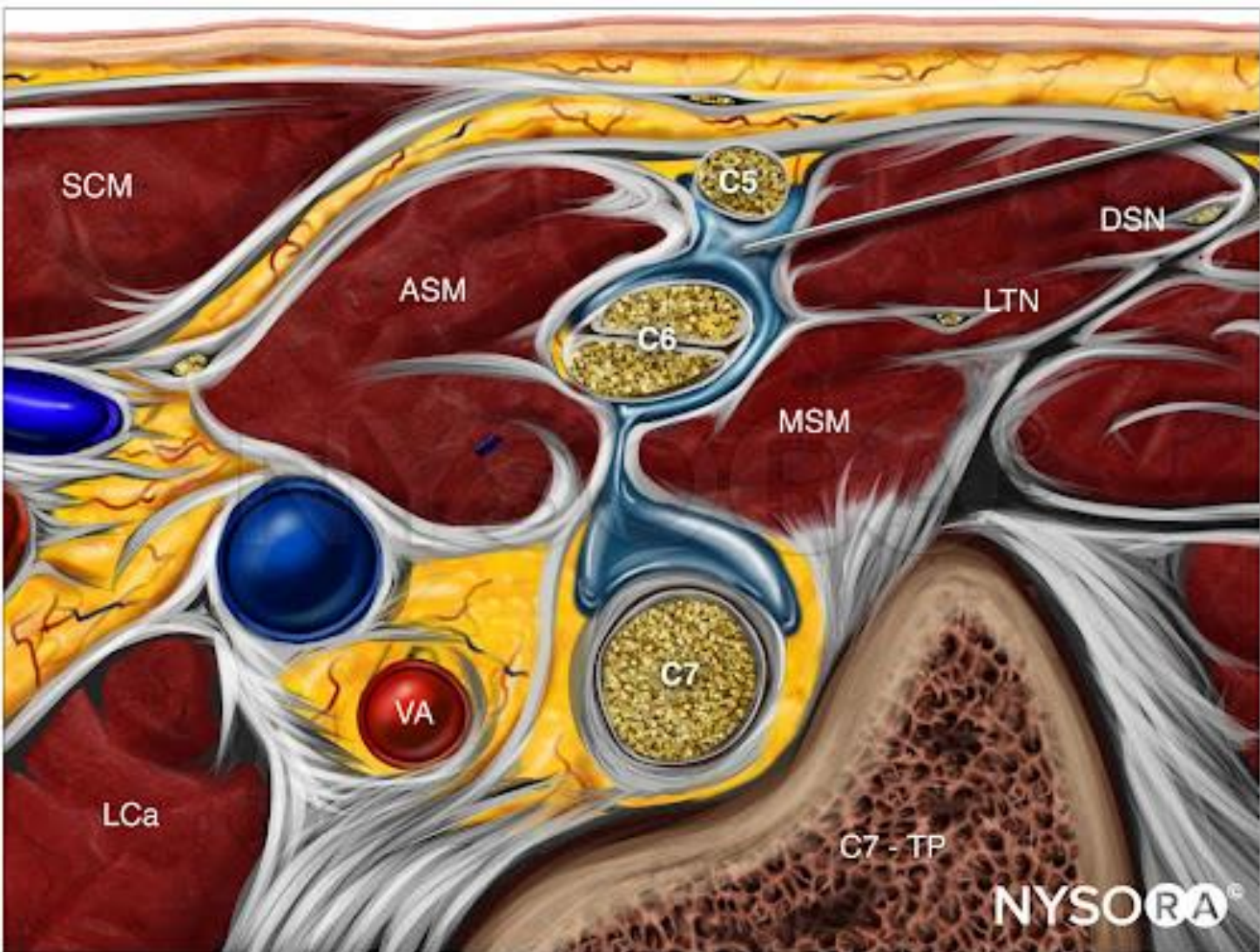
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Introduction

- Peripheral nerve catheters are a safe and effective way of providing continuous, targeted anesthesia
- Can serve as adjunct to multimodal analgesic regimen in the chronic pain patient
- Case: patient with exceptionally high opioid requirements who underwent interscalene catheter placement



Materials & Methods

- A literature review was performed investigating peripheral nerve catheters as adjuncts to the analgesic regimen in chronic pain patients
- Patient gave verbal consent to write this case report
- This case report does not contain any patient identifiable information; therefore, it is exempt from IRB review as per Colorado Multiple Institutional Review Board (COMIRB) policy

Case Report

- 47 year-old male with rectosigmoid adenocarcinoma with metastases to bone presented with left humerus pathologic fracture
- Prior to admission: methadone 15mg q8hr, ketamine 75mg q8hr, hydromorphone PRN
- Inpatient: hydromorphone PCA 0/6/10 with a 9mg bolus q1hr PRN
- MME= 1,556 milligram per day
- Hospital Day 3: APS consulted, left interscalene catheter placed: 0.2% Ropivacaine at 10mL/hr with a 20mL bolus q4hr
- Post catheter placement: lower subjective pain scores (7/10 vs. 10/10), better sleep, and improved satisfaction
- Daily MMEs did not change**
- Hospital Day 9: L TSA and humerus resection
- POD 1: Catheter dislodged and replaced
- POD 5: erythema at insertion site, catheter removed
- POD 9: discharged on methadone 15mg q8hr, oxycodone 40mg q2hr, naproxen, acetaminophen, and cyclobenzaprine



Discussion

- Increasing evidence supports the use of regional anesthesia to reduce opioid consumption
- Given our patient’s high opioid requirements at baseline and his additional sources of cancer-related pain, we knew he would still require at least his baseline opioids to control his pain
- Despite unchanged MMEs after catheter placement, saw improvement in endpoints such as sleep, willingness to participate in PT, subjective pain score, and willingness to discharge
- Overall, this case highlights that while regional anesthesia is often used to reduce opioid consumption, it can have additional benefits especially in the chronic pain population**

References

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- Gautier, P., Vandepitte, C., & Gadsden, J. (2024, November 1). *Ultrasound-guided interscalene brachial plexus nerve block*. NYSORA. <https://www.nysora.com/techniques/upper-extremity/intescalene/ultrasound-guided-interscalene-brachial-plexus-block/>