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- Peripheral nerve blocks have been used as both a form of post-operative pain control as well as a primary anesthetic for a given procedure.
- The use of nerve blocks in ambulatory surgery result in decreased unanticipated same-day admissions, better pain scores, and reduced day-of-surgery opioid use[1,2],
- The use of continuous peripheral nerve catheters can extend the effect of a nerve block by enabling a continuous infusion of medication for a time period far beyond the duration of the initial local anesthetic used.
- The use of home peripheral nerve catheters after ambulatory surgery have been shown to have several benefits including less pain-related sleep loss compared to opioid and placebo, better pain scores compared to placebo, and less opioid consumption and subsequently less opioid-related side effects [3].
- However, up to one third had some form of catheter malfunction [4].
- In general, home catheters are not widely used in ambulatory surgery today despite their documented benefit. Today we present a case of a patient successfully discharged with an interscalene nerve catheter after ambulatory shoulder replacement.

- Intraoperatively the patient was induced for general anesthesia, intubated with an endotracheal tube, and was maintained with sevoflurane.
- The patient received a total of 200 micrograms of fentanyl for intraoperative analgesia. The patient received no analgesic medications in the post anesthesia care unit postoperatively.
- After full education on catheter and pump management and removal, the patient was discharged the same day with the catheter pump set at 6 ml/hr of 0.2% Ropivacaine.
- The day following discharge, post-operative day 1 and catheter day 2, the patient was called for follow up and reported well controlled pain with a pain score of 0/10. He also reported not needing to take any additional medications for analgesia.
- On post-operative day 2 and catheter day 3, the patient was called by telephone for follow up and reported well-controlled pain with a pain score of 4/10. He continued to deny taking any additional analgesic medications.
- At this time, he was verbally instructed to remove the catheter with the help of his wife. The catheter was removed without complication and with the tip intact by the patient and his wife.
- On post-operative day 8, the patient was seen by orthopedic surgery for a follow up appointment. He reported decreasing pain (no pain score documented) with acetaminophen as his only analgesia.

- Our patient was discharged with an interscalene catheter for total shoulder replacement. At his 24-hour follow-up, the patient reported 0/10 pain. The following day the patient reported 4/10 pain at the surgical site. Afterwards, he was successfully able to remove the catheter.
- Throughout the acute postoperative period, the patient only had to add acetaminophen for analgesia in addition to the catheter. He therefore experienced several benefits of a continuous catheter including less opioid use and low pain scores including zero pain on post-op day 1.
- It should be noted, however, that the catheter may have migrated after the first day resulting in a higher pain score of 4/10.
- While anecdotal, this case serves to illustrate a successful discharge of a patient with a home-catheter in place and clear benefits without any noted complications.

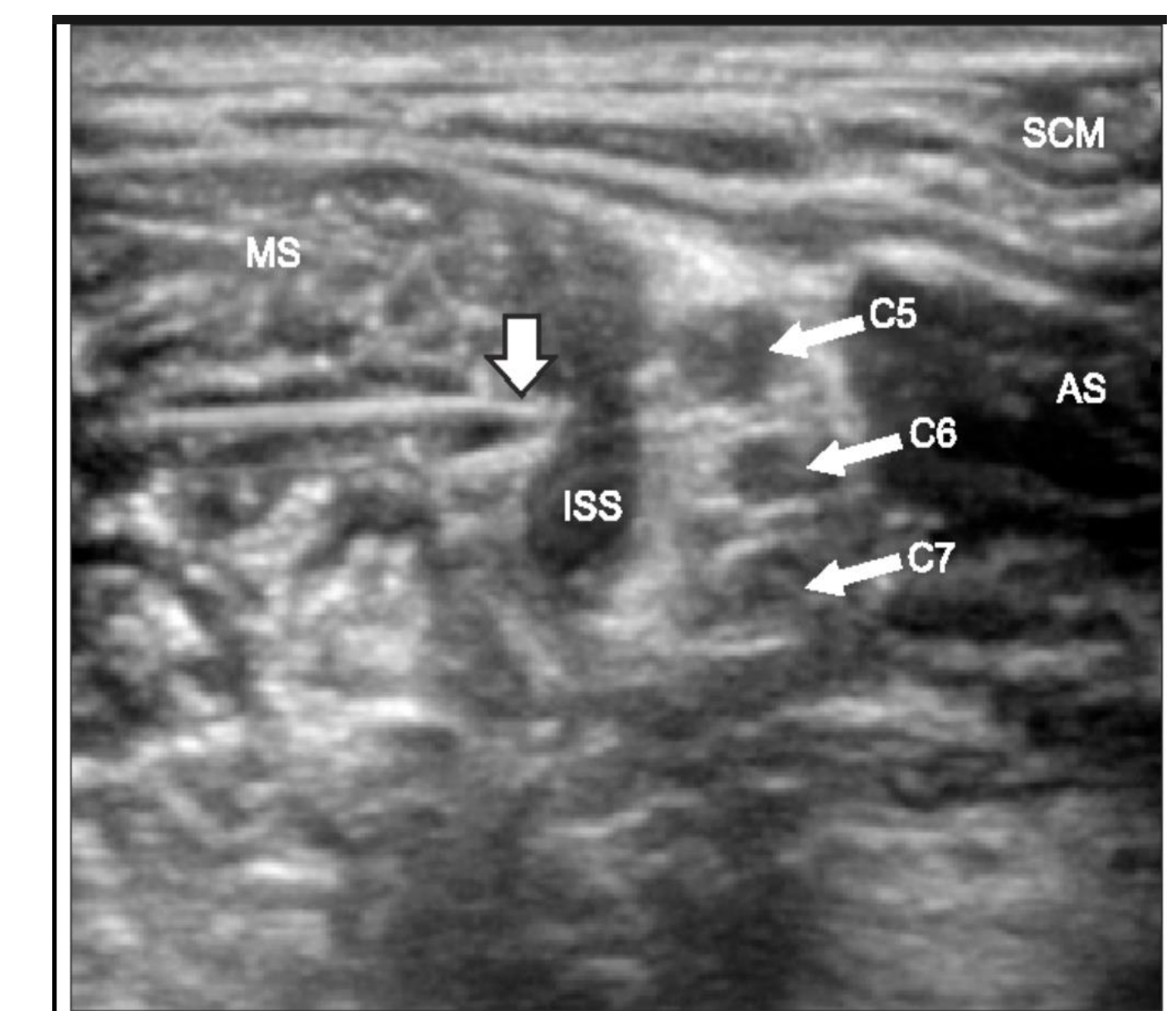


Fig 2. Ultrasound image of interscalene block, credit:Somatic Scholar

- We present a 74-year-old male with a past medical history of Post-Traumatic Stress Disorder, Major Depressive Disorder, fatty liver, Benign Prostate Hyperplasia, possible coronary artery disease, and gastric reflux who presented with right shoulder pain and was scheduled for a right total shoulder replacement.
- Preoperatively, after mild sedation with 100 mg of Fentanyl and 2 mg of Midazolam, a right-sided ultrasound guided interscalene block was performed using 18 mL of Ropivacaine 0.5%.
- Additionally, an interscalene catheter was placed for continued postoperative analgesia.

- Peripheral nerve home catheters have been shown to improve patient outcomes in several ways. Patients have been shown to have fewer pain-related sleep disturbances, report better pain scores, and consume less opioids.
- Despite these benefits, many providers avoid discharging patients with a catheter in place due to a fear of complications. Some of these complications include residual blockade, equipment malfunction, loss to follow up, or inadequate pain control. More serious concerns could include infection or nerve damage.
- Only several studies have been conducted to quantify the benefits and document complications. In one, only 4.2% of patients with a home catheter required intervention as defined by any catheter-related issue requiring an anesthesiologist to address. Further, the entire cohort of patients was able to be reached by phone call the day after discharge [5].

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