

Comprehensive Surgical Block for Axillary Tumor Resection In High-Risk Elderly Patient

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INTRODUCTION:

- Regional anesthesia is often utilized as the primary anesthetic modality to avoid general anesthesia in high-risk patients
- Comprehensive coverage for axillary dissection involves complex innervation, thus challenging for targeted surgical blockade
- Our case describes the successful use of multiple regional anesthetic techniques to provide surgical anesthesia in an axillary resection for an elderly patient with significant cardiac comorbidities.

METHODS & TECHNIQUE:

For the **SAP block**, probe placed in coronal orientation along 4th - 5th rib in the mid-axillary line.
➤ In-plane approach, 20 ml of 0.375% Bupivacaine + dexamethasone 10 mg injected deep to serratus anterior muscle overlying the ribs

Intercostobrachial (ICB) nerve and supraclavicular brachial plexus blocks

- Total 20 ml of 2% mepivacaine with 1:200,000 epinephrine



Figure 1: Surgical resection of axillary tumor with incision extending into proximal arm and lateral chest wall.

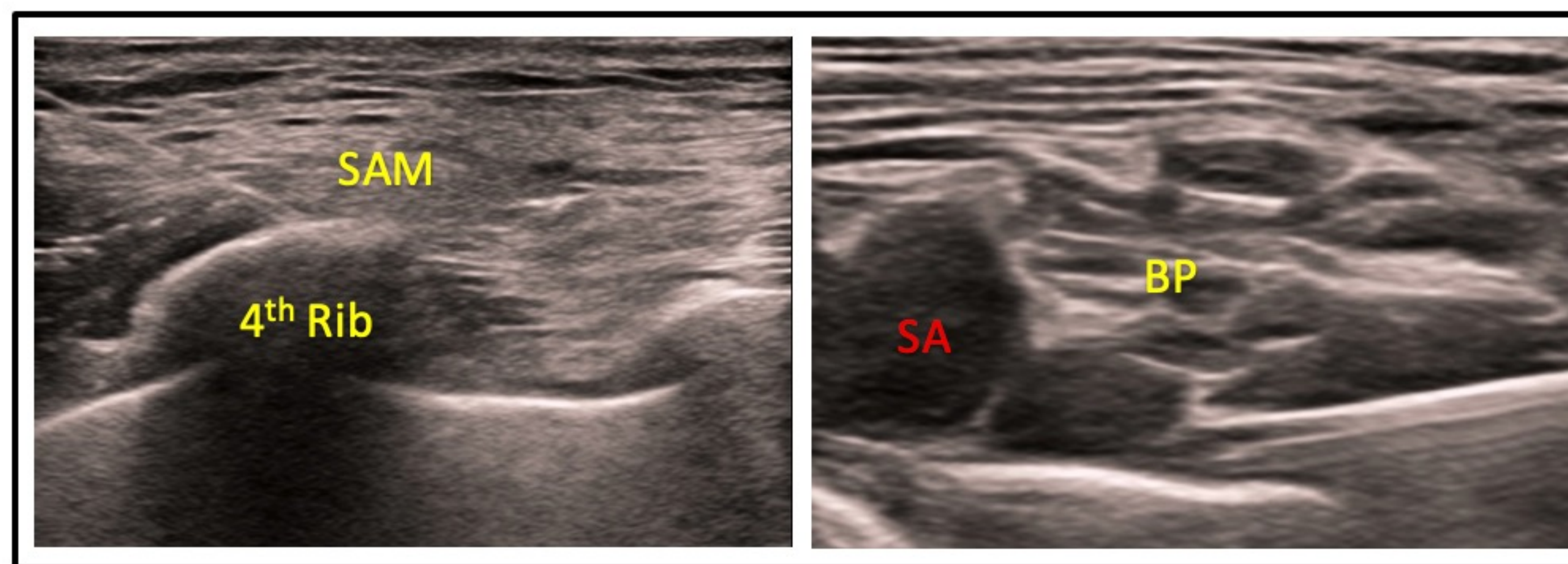
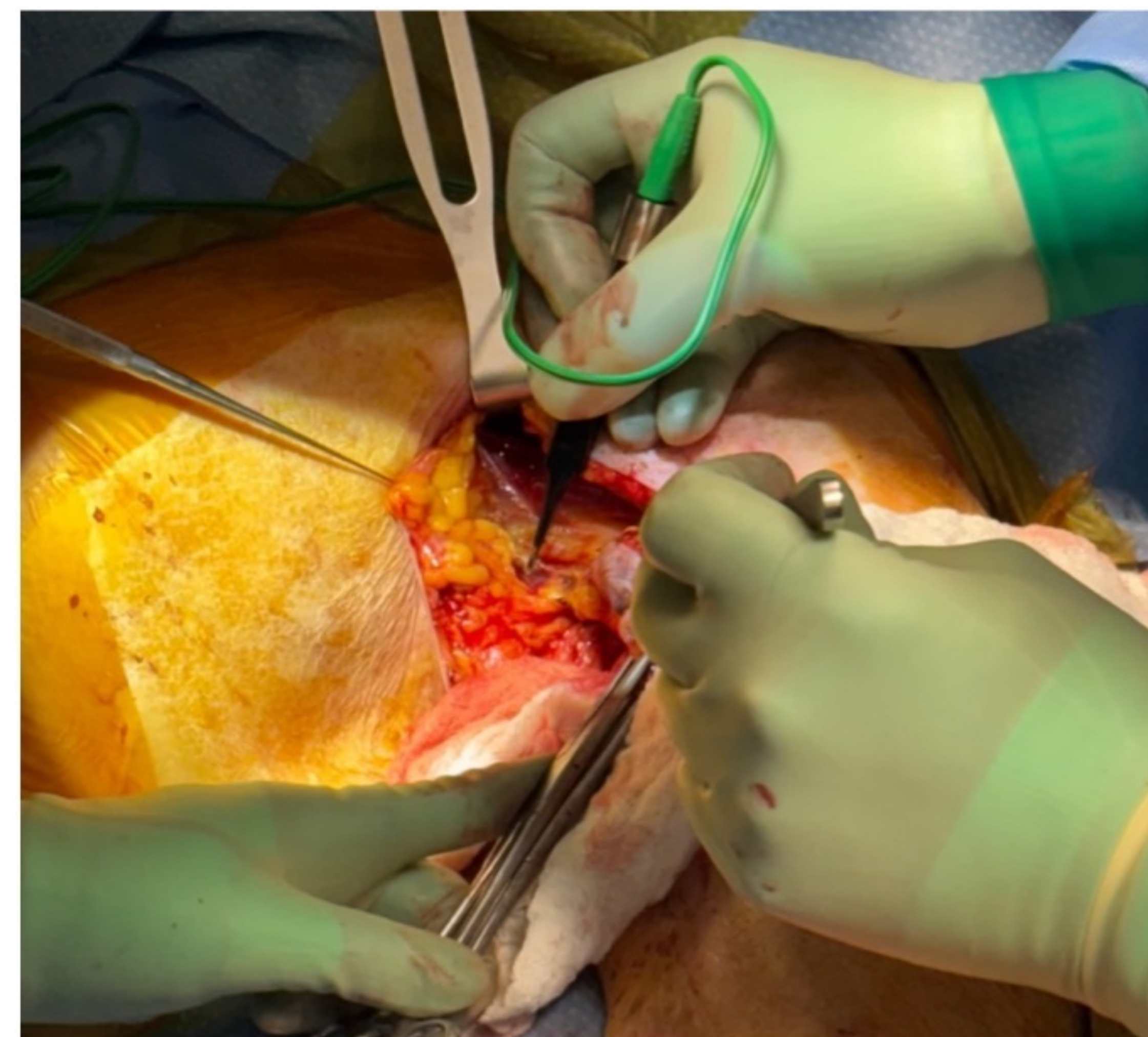


Figure 2: Serratus anterior plane (SAP) block with local anesthetic injected overlying the 4th rib (Left); Supraclavicular brachial plexus block (Right). SAM: Serratus anterior muscle, SA: Subclavian artery, BP: Brachial plexus

CASE REPORT:

92-year-old female with pleomorphic rhabdomyosarcoma in the left anterior proximal arm (axillary region) presented for palliative resection due to progression of disease.

PMH: A-fib (rate-controlled with ventricular pacing), pacing dependent tachy-brady syndrome, moderate-severe aortic stenosis, mild pulmonary HTN.

Ultrasound-guided SAP, ICB nerve, and supraclavicular brachial plexus blocks to cover the surgical field and immobilize the upper extremity during surgery.

- Intraop remimazolam infusion (10-15 mg/hr) for added anxiolysis
- Surgery time 90 minutes with no complications or patient discomfort
- Multimodal adjuncts: magnesium 2 gm, ketorolac 15 mg, acetaminophen 500 mg
- Discharged from PACU after 2 hours with complete resolution of brachial plexus blockade, no reported pain, no PACU medications

DISCUSSION:

- Combined regional anesthetic techniques for surgical anesthesia during axillary tumor resection in a high-risk patient.
- Hemodynamic stability, effective analgesia, and prompt recovery with same day discharge, avoiding general anesthesia
- Short-acting formulation for brachial plexus block provided prompt recovery of function and long-acting formulation for SAP block allowed prolonged postoperative analgesia