



Regional Anesthesia as Primary Anesthetic for Lower Extremity Skin Grafting In a High-Risk Surgical Patient

Charles P. Burke MD, Gavin Ovsak MD, Edward Tsai MD, Andrzej P. Kwater MD

Department of Anesthesiology and Perioperative Medicine, The University of Texas MD Anderson Cancer Center, Houston, TX

INTRODUCTION:

Regional anesthesia is increasingly utilized as a primary anesthetic technique for select surgical procedures in patients at elevated risk for complications with general anesthesia.

Patients with cardiopulmonary comorbidities or recent use of GLP-1 receptor agonists present unique perioperative challenges.

METHODS & TECHNIQUE:

Combined peripheral nerve blockade as primary anesthetic for lower extremity reconstructive surgery:

Suprainguinal fascia iliaca (SIFI) block for skin grafting of the anterior thigh and **popliteal sciatic block** for the right fibula donor site.

SIFI Block: 22-gauge needle advanced in-plane depositing local anesthetic overlying iliacus muscle. 20 mL of 0.25% bupivacaine injected

Sciatic Nerve Block: 20-gauge needle advanced into popliteal fossa. 20 mL of 0.25% bupivacaine injected in the surrounding sheath at bifurcation of the common peroneal and the tibial nerves.

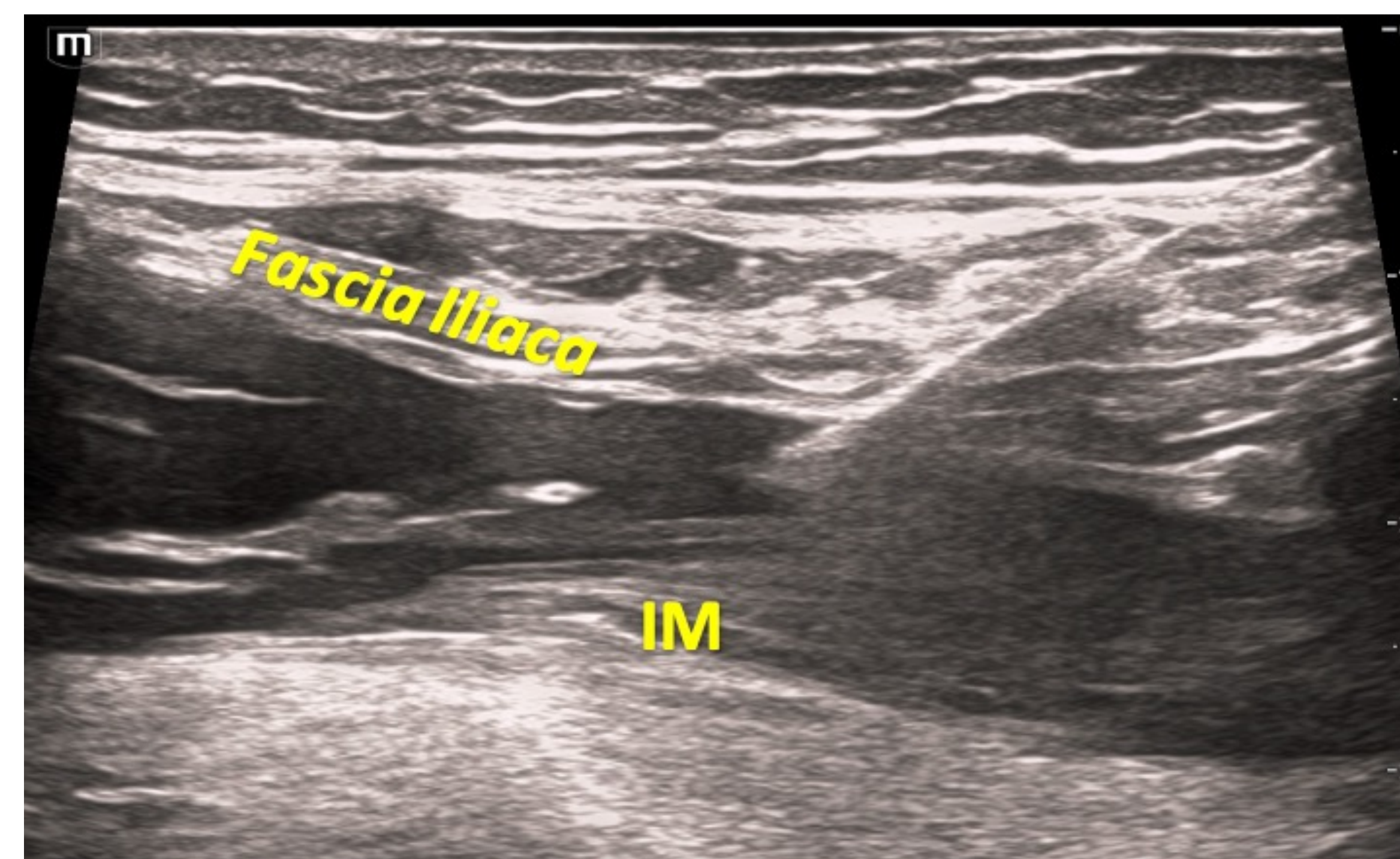


Figure 1: Ultrasound image of suprainguinal fascia iliaca (SIFI) block with surrounding anatomical structures. IM: Iliacus muscle, Faslia Iliaca

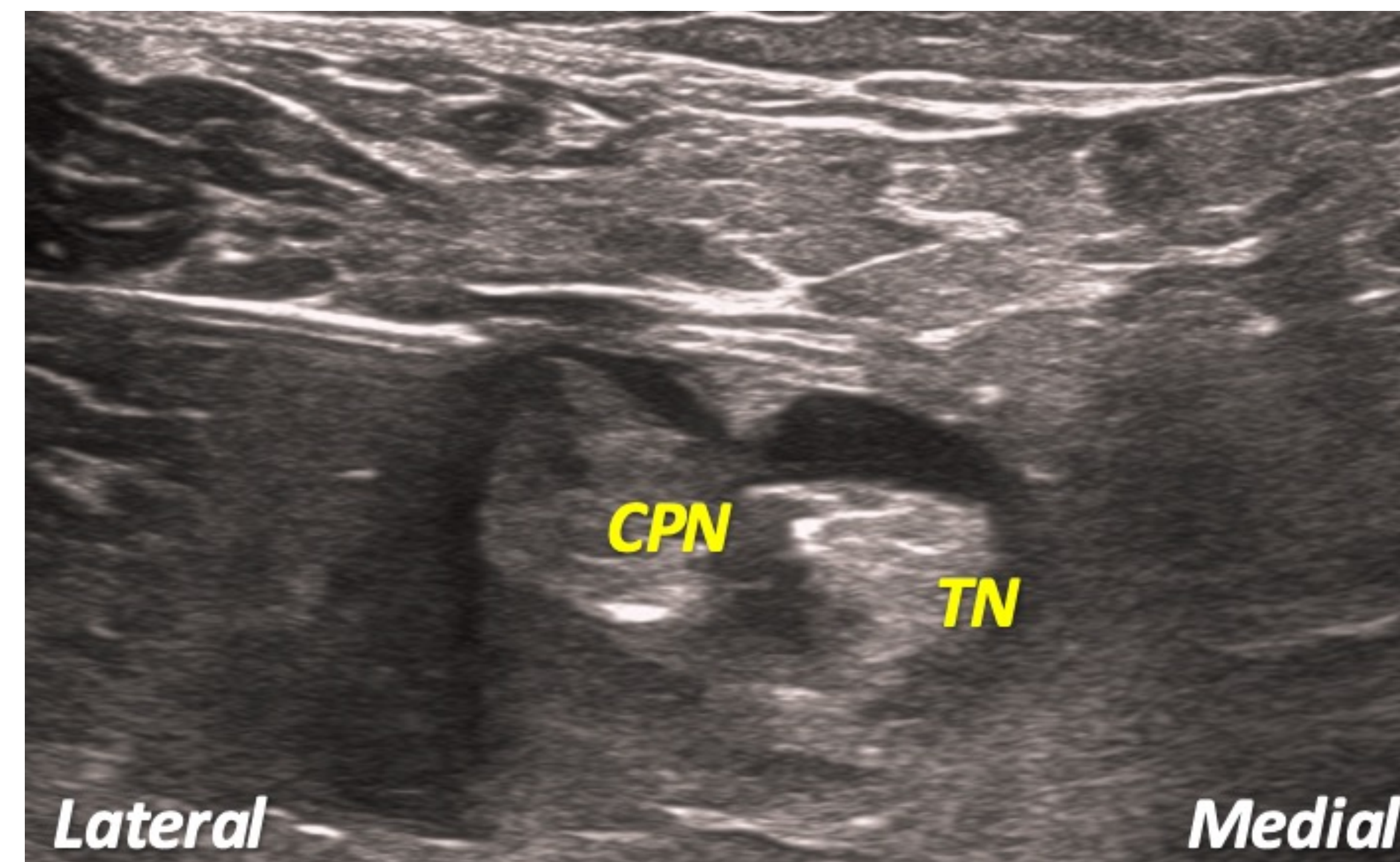


Figure 2: Ultrasound image of sciatic block at the level of the popliteal fossa. CPN: Common peroneal nerve, TN: Tibial nerve

ABSTRACT & REFERENCES:



CASE REPORT:

86 year-old male with mandibular squamous cell carcinoma s/p mandibulectomy, dental extractions, neck dissection, tracheostomy, and fibula free-flap reconstruction. One month postop, presented with dehiscence of the RLE fibula donor site and required full-thickness skin grafting.

Medical history included prior MI, Afib (on apixaban), and DM (on GLP-1 agonist). Due to concerns of cardiac complications and aspiration risk with recent GLP-1 use, regional anesthesia was chosen as the primary anesthetic

- SIFI block used to cover skin graft site on anterior thigh
- Popliteal sciatic block utilized for fibula donor site
- Intraop: Remimazolam (total 5 mg), fentanyl 100 mcg, hydromorphone 0.3 mg, supplemental oxygen
- Pain score 0-1/10, discharged POD1 with full return of motor/sensory function and cleared by PT
- No additional opioids during inpatient stay

DISCUSSION:

Combined regional anesthesia techniques can be utilized effectively as the sole anesthetic for a patient at high risk of complications with general anesthesia.

Thorough review of a patient's comorbidities and risk factors in tandem with surgical planning is essential for identifying patients who should receive regional anesthesia as their primary anesthetic.