

A Single-Shot Supraclavicular Brachial Plexus Block for Upper Extremity Polytrauma After Machete Assault

JiMin Ko, MD jimin.ko@nyulangone.org
Mitchell Foster, MD, Co-Author mitchell.foster@nyulangone.org
Amy Tan, MD, Co-Author amy.tan3@nyulangone.org
Evan Yates, DO, Co-Author evan.yates@nyulangone.org

NYU Langone Health
NYC HEALTH+ HOSPITALS

Background

Ultrasound-guided regional anesthesia can reduce opioid use and procedural sedation in upper extremity trauma. We describe a single-shot **supraclavicular brachial plexus block (SBPB)** that enabled extensive wound repair and shoulder reduction following a machete assault.

Materials and Methods

Patient information was de-identified, and informed consent was obtained for use of records and imaging. This case report was exempt from IRB review under NYU policy.

Case Presentation

A **29-year-old man** sustained scalp lacerations and extensive left hand, wrist, and forearm wounds, with exposed muscle and a transected extensor pollicis longus tendon. Imaging showed an **anterior shoulder dislocation with a Hill-Sachs deformity**. Distal pulses and sensation were intact.

The emergency medicine team performed an ultrasound-guided SBPB using **20 mL of 0.5% bupivacaine**. The patient subsequently tolerated extensive wound exploration, irrigation, and multilayer repair, tendon evaluation and tagging, and successful first-attempt shoulder reduction

No procedural sedation or additional opioids were required after initial intramuscular fentanyl. The block avoided local anesthetic infiltration at multiple wound sites and provided **over six hours of analgesia without complications**.

Discussion

A single SBPB facilitated multiple procedures for combined blunt and penetrating upper extremity trauma. In selected patients, this approach may improve procedural efficiency, reduce opioid exposure, and provide prolonged analgesia.

One **ultrasound-guided nerve block** provided sufficient anesthesia and analgesia for **complex wound management** and **orthopedic reduction**, avoiding extensive local anesthetic infiltration, additional opioids, and procedural sedation







