

Regional Blockade of the Shoulder: Approaches and Outcomes

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The presentation will review the current literature regarding shoulder anesthesia and analgesia. Anatomy, approaches, and outcomes will be presented that summarize our present understanding of evidence-based regional anesthesia for the shoulder. Medline and PubMed searches were performed for relevant publications regarding shoulder anesthesia and analgesia. Keywords included the following: "shoulder anesthesia", "shoulder analgesia", "regional anesthesia", "interscalene block", "suprascapular block", "subacromial block", "intra-articular injection", and the MeSH heading "nerve block". The search identified 259 abstracts that were reviewed. One hundred articles were read and reference lists reviewed. Shoulder procedures producing mild to moderate pain may be managed with a single-injection interscalene block. However, studies support that moderate to severe pain, lasting for several days is best managed with a continuous interscalene block. This may cause increased extremity numbness, but will provide greater analgesia, reduce supplemental opioid consumption, improve sleep quality and patient satisfaction. In comparison to the nerve stimulation technique, ultrasound can reduce the volume of local anesthetic needed to produce an effective interscalene block. However, it has not been shown that ultrasound offers a definitive benefit in preventing major complications. The evidence indicates that the suprascapular and/or axillary nerve blocks are not as effective as an interscalene block. However in patients who are not candidates for the interscalene block, these blocks may provide a useful alternative for short-term pain relief. There is substantial evidence showing that subacromial and intra-articular injections provide little clinical benefit for postoperative analgesia. Given that these injections may be associated with irreversible chondrotoxicity, the injections are not presently recommended.

Biography

Clifford Bowens completed his medical training at Duke University School of Medicine in 1993. He served in the United States Navy as a General Medical Officer, earning the rank: Commander, Medical Corps. Dr. Bowens completed his residency in Anesthesia at Penn State Hershey Medical Center. He is presently an Assistant Professor in the Department of Anesthesiology, Vanderbilt University School of Medicine. He serves as the Medical Director, Orthopedic Anesthesia, and has published several journal articles and book chapters.

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