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*“Randomized control trial of ultrasound-guided erector spinae block (ESP) versus shoulder periarticular anesthetic infiltration (PAI) for pain control after arthroscopic shoulder surgery”*

Arthroscopic shoulder surgery is a common and minimally invasive procedure utilized for different shoulder pathologies. Nevertheless, it is often associated with moderate to severe postoperative pain that may interfere with patients’ well-being and course of recovery.

The conventional use of opioids to manage this pain is frequently associated with nausea, vomiting and respiratory depression, which may cause prolonged hospitalization and recovery. Opioid use can also lead to hormonal changes, dysphoria and dependency. As such, achieving pain control while minimizing opioid use is critical.

Periarticular infiltration (PAI) with local anesthetic has been used for shoulder surgery pain management but is not as effective as regional nerve blocks. Although interscalene nerve block (ISNB) is the current gold standard analgesic modality, it is associated with the risk of significant side effects, such as persistent neurologic complications, rebound pain, phrenic nerve palsy, respiratory distress, cardiac arrest, pneumothorax and central nerve toxicity. As such, evaluating alternate regional blocks having the capacity for good pain relief with minimal side effects and need for opioids is extremely important.

The Erector Spinae Plane (ESP) block is a novel ultrasound-guided block that was originally described in the management of thoracic pain and has been successfully extrapolated to abdominal analgesia and chronic shoulder pain. The ESP block is simple and safe and has the potential to provide effective analgesia without motor blockade and minimal risks of nerve damage, phrenic nerve palsy, respiratory distress or pneumothorax.

The purpose of this randomized control trial is to establish the effectiveness and safety of the ESP block in pain control after shoulder arthroscopy, using PAI as a comparison.