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*“Perioperative Pain Management for Total Shoulder Arthroplasty: A Pilot Non-Inferiority Trial”*

Total shoulder replacement is a common and effective treatment for shoulder arthritis and fractures. Outpatient total shoulder replacement has the potential to reduce costs and improve care, however, this requires excellent pain relief. Strategies to reduce pain after total shoulder replacement include injecting freezing around the nerves in the neck that travel to the shoulder (interscalene brachial plexus blockade) or injecting freezing directly into the shoulder during surgery (local infiltration analgesia). Our recent experience with a pilot outpatient total shoulder replacement program has identified problems with pain management. The standard of care in our hospital is to use the interscalene brachial plexus blockade but patients sometimes receiving “too much” or “too little” analgesia have required hospital admissions. “Too much” freezing can unintentionally paralyze some of the breathing muscles and overnight hospital admission is required. “Too little” nerve freezing results in overnight admission for pain control. In addition, there are also concerns about acute and chronic complications of plexus blockade. Several researchers have examined the role of various pain management strategies for total shoulder replacement, but the results are conflicting and there is no agreement on the best treatment approach. Further, none of the studies have comprehensively compared interscalene brachial plexus blockade to local infiltration analgesia in a randomized prospective trial.