



US DEPARTMENT OF DEFENSE

BLAST INJURY RESEARCH PROGRAM COORDINATING OFFICE

Pain Management and Rehabilitation after Amputation The Effect of Sedation on the Accuracy and Treatment Outcomes for Diagnostic Injections: A Randomized, Controlled, Crossover Study

In an effort to improve the accuracy and treatment outcomes for diagnostic injections for injured Service Members, researchers at CRSR at USUHS sought to determine the effect of sedation on the validity of diagnostic injections. In this randomized crossover study, 73 patients were allocated to receive a diagnostic sacroiliac joint or sympathetic nerve block performed either with or without sedation using midazolam and fentanyl. Those who obtained equivocal relief, good relief lasting less than three months, or who were otherwise deemed good candidates for a repeat injection, received a subsequent crossover injection within three months ($n = 46$). Blocks performed with sedation had a significantly larger mean reduction in pain diary score than those done without sedation, significantly less procedure-related pain, and a significantly higher proportion of patients who obtained > 50% pain relief on their pain diaries. The improved pain reduction was not accompanied by increased satisfaction. No differences in outcomes were noted between the use and non-use of sedation at one-month follow-up. These findings indicate that the use of sedation during diagnostic injections has no effect on satisfaction or outcomes at one-month, and were published in *Pain Medicine*. This information may be used to inform clinical decisions for patients receiving sedation during diagnostic injections.