Pain Management and Rehabilitation after Amputation

Can Changes in Vital Signs be used to Predict the Response to Lumbar Facet Blocks and Radiofrequency Denervation? A Prospective, Correlational Study

A multicenter prospective study was conducted by CRSR at USUHS to determine whether objective measures such as changes in vital signs might be used to predict outcomes after facet joint radiofrequency (RF) ablation. Patients who underwent diagnostic lumbar medical branch blocks were recruited; a subset of these proceeded to RF denervation. For all participants, BP, HR, and pain scores were recorded before and after lumbar facet block. Overall, 56.1% of patients had a positive facet block. There were no significant correlations between changes in NRS scores and HR, systolic BP, diastolic BP (DBP), and mean arterial pressure. There were no significant associations between facet block outcomes and any vital sign. A decrease in DBP > 7.5 mmHg after facet block had 97.3% specificity, a Positive Predictive Value (PPV) of 85.7%, and Negative Predictive Value (NPV) of 58.3% for predicting outcomes at 3-months follow-up. These findings, which were published in *Regional Anesthesia and Pain Medicine*, indicate that changes in vital signs could potentially predict responses to RF denervation. Using an algorithm based on age, pain duration, baseline NRS score, and significant decrease in DBP, changes in vital signs could predict outcomes following RF denervation with 76.7% accuracy, but the low NPV precludes its use as a solitary screening tool.