Validity and Responsiveness of Patients’ DASH Scores as an Outcome Measure Following Ulnar Nerve Transposition for Cubital Tunnel Syndrome

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Objectives and Background

- To determine the validity and responsiveness of the DASH questionnaire in cubital tunnel syndrome (CuTS)
- There is not a common standard for assessing pain and disability in CuTS
- Developing a standard assessment will allow better comparisons and interpretations of outcome data

Methods and Patient Demographics

- Retrospective cohort study was performed on consecutive patients (>18 y/o) diagnosed with CuTS by the senior author (SEM)
- All patients underwent an anterior transmuscular transposition of the ulnar nerve performed by the senior author
- Patients were split into two groups, those undergoing surgery for CuTS and those undergoing concurrent surgery for CuTS and carpal tunnel (CTS)
- Patients were excluded with any other neuropathies
- Patient demographics shown in Table 1
- 2-pt discrimination, pinch, and grip strength were evaluated on all patients
- Patients filled out the DASH, SF-8, and a VAS pain questionnaire pre- and post-operatively

Statistics:

- Descriptive statistics (mean, standard deviation, frequency) calculated
- Construct validity assessed using Spearman correlation coefficients pre-operatively and at 1-3 months post-operatively
- Responsiveness evaluated at 6 weeks, 3, 6, and 12 months post-operatively

Table 1: Baseline Characteristics of all Patients

Results

Construct Validity:

- DASH showed moderate to moderately strong correlations with pain VAS and SF-8 scores
- DASH showed weak to moderate correlation with pinch and grip strength

Responsiveness:

- Effect sizes for the DASH were small (<0.3) at 6 weeks and moderate (0.35-0.57) at 3, 6, and 12 months postoperatively
- Pain VAS scores showed large effect sizes (>0.8) at all postoperative time points
- SF-8, pinch, and grip strength showed poor responsiveness

Conclusions

- DASH is a valid outcome measure in cubital tunnel syndrome
- DASH is moderately responsive to changes after 3 months follow-up
- Pain VAS scores are highly sensitive to change in this population
- Physical and health status measures were poorly responsive to change in this population

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