A Comparison of Patient-Reported Outcome Measures for Dupuytren Disease: A Prospective View

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OBJECTIVES

Most widely used questionnaires for Dupuytren’s Disease:
Their psychometric properties
Their association with an objective measurement of treatment improvement → ROM

METHODS

Prospective study.

QUESTIONNAIRE COMPARISON

REGION SPECIFIC
PEM → Patient Evaluation Measure
BriefMHQ → Brief Michigan Hand Outcome Questionnaire

DISEASE SPECIFIC
SDSS → Southampton Dupuytren Scoring Scheme
URALM → Unite Rhumatologique des Affections de la Main

RESULTS

✓ 92 Treatments
✓ Completed questionnaires → 100%
✓ Before and after treatment scores
  ✓ Strong correlation between all questionnaires
    (Spearman rho >0.6).
✓ Minimal Clinically Important Change Score
  ✓ Similar between tres of the questionnaires(URALM, 11.528/45=0.256; SDSS, 5.079/20=0.254; and PEM, 21.542/77=0.215)
  ✓ Slightly lower for the briefMHQ (10.617/60=0.177).
✓ There were NO correlations between treatment results and...
  ✓ Hand Treated (r = 0.107; p = 0.31)
  ✓ Joint treated (r = 0.163; p = 0.12)
  ✓ Finger treated (r = -0.151; p = 0.15)

< Internal responsiveness
< Effect size
< Standardized Response Mean

<table>
<thead>
<tr>
<th>Questionnaire</th>
<th>Change after treatment</th>
<th>Paired t test</th>
<th>P Value (t test)</th>
<th>ES</th>
<th>SRM</th>
<th>Pearson r</th>
<th>RCI*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urals</td>
<td>Mean: -11.717 – 13.808</td>
<td>-9.627 – 11.135</td>
<td>&lt;0.01</td>
<td>-1.16</td>
<td>0.332</td>
<td>11.528</td>
<td></td>
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<tr>
<td>SDSS</td>
<td>Mean: -5.087 – 5.988</td>
<td>-4.186 – 11.212</td>
<td>&lt;0.01</td>
<td>-1.16</td>
<td>0.387</td>
<td>5.079</td>
<td></td>
</tr>
<tr>
<td>BriefMHQ</td>
<td>Mean: -12.185 – 14.127</td>
<td>-10.242 – 12.459</td>
<td>&lt;0.01</td>
<td>-1.197</td>
<td>0.489</td>
<td>10.617</td>
<td></td>
</tr>
<tr>
<td>PEM</td>
<td>Mean: -19.609 – 23.476</td>
<td>-15.742 – 10.073</td>
<td>&lt;0.01</td>
<td>-0.910</td>
<td>0.895</td>
<td>21.542</td>
<td></td>
</tr>
</tbody>
</table>

Responsiveness is perhaps the most interesting parameter, as it reflects the ability of a questionnaire to detect change in a group of patients known to have changed. In our series, the ES and SRM values were higher than 0.8 in all cases, indicating that all four questionnaires were sensitive to the effects of treatment.

CONCLUSIONS

We did not find that any one questionnaire performed better than the others in detecting perceived changes in health status among patients with Dupuytren’s disease treated with collagenase.