Foot Pathologies Associated with Decreased Activity Levels

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Vail, Colorado

AOFAS Annual Meeting 2012
DISCLOSURE

- The institution has received financial support not related to this research from the following: Siemens Medical Solutions USA, Smith & Nephew Endoscopy, Arthrex, Inc., Ossur Americas, Small Bone Innovations, ConMed Linvatec, Opedix

- One of the authors serves as consultant for Arthrex and Wright Medical and is on the speaker’s bureau for Small Bone Innovations
INTRODUCTION

- People with various foot pathologies present with different levels of activity
- There are various scales which measure activity levels
- The purpose of this study was to determine associations between different foot pathologies and outcomes scores
METHODS

◆ This study was institutional review board approved
◆ All data were collected prospectively
◆ Between Feb 2010 and Dec 2011, prospective data was collected on all patients who underwent foot surgery
◆ Outcomes measures collected included:
  ➢ Tegner activity scale
  ➢ Foot & Ankle Disability Index (FADI) Sport Subscale
  ➢ Foot and Ankle Ability Measure (FAAM) Sport Subscale
◆ Detailed surgical findings were also documented
◆ 55 consecutive patients completed the survey
  ➢ 21 males, 34 females
  ➢ Mean age = 50 years (range, 18 - 79 years)
**Tegner Activity Scale**

- **Level 10** Competitive Sports (national elite (soccer, football, rugby))
- **Level 9** Competitive Sports (lower divisions (soccer, football, rugby, hockey))
- **Level 8** Competitive Sports (racquetball, track, alpine skiing)
- **Level 7** Competitive Sports (recreational sports (soccer, football))
- **Level 6** Recreational Sports (tennis, skiing, jogging 5x/week)
- **Level 5** Work (heavy labor, competitive sports, recreational (cycling, x-country ski))
- **Level 4** Work (moderately heavy labor and recreational sports (cycling, jog 2x/wk))
- **Level 3** Work (light labor, competitive and recreational sports (swimming, hiking))
- **Level 2** Work (light labor, walking on uneven ground)
- **Level 1** Work (light labor, walking on even ground possible)
- **Level 0** Sick leave or disability (due to injured joint)

Tegner and Lysholm, *CORR* 1985
Reason for Seeking Medical Attention

- **Pain Only**: 75%
- **Pain & Function Loss**: 42%
- **Pain, Instability or Weakness**: 11%
- **Pain & Instability**: 11%
- **Weakness or Stiffness Only**: 7%
- **Instability Only**: 7%
- **Function Loss Only**: 4%
- **Other**: 13%
RESULTS

- Patients who had a foot fracture were more likely to have a lower Tegner activity scale scores than those who did not have a fracture ($p=0.048$).
- Patients were more likely to have lower Tegner activity scale scores if they underwent an osteotomy of the foot ($p=0.048$) or had hallux valgus pathology ($p=0.008$).
- Patients who had an osteotomy were more likely to have lower FAAM and FADI sport subscale scores than those who did not ($p=0.021$).
### RESULTS

<table>
<thead>
<tr>
<th></th>
<th>Tegner</th>
<th>FAAM Sport</th>
<th>FADI Sport</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arthritis</td>
<td>1 (range, 1-1)</td>
<td>58 (range, 38-100)</td>
<td>58 (range, 38-100)</td>
</tr>
<tr>
<td>Fracture</td>
<td>6 (range, 2-7)</td>
<td>43 (range, 0-100)</td>
<td>43 (range, 0-100)</td>
</tr>
<tr>
<td>Osteotomy</td>
<td>5 (range, 2-6)</td>
<td>51 (range, 0-100)</td>
<td>51 (range, 0-100)</td>
</tr>
<tr>
<td>Hallux Valgus</td>
<td>5 (range, 3-6)</td>
<td>61 (range, 0-100)</td>
<td>61 (range, 0-100)</td>
</tr>
</tbody>
</table>
CONCLUSIONS

- This study showed that Tegner activity scale, as well as FADI and FAAM sport subscale were able to differentiate between various pathologies of the foot.
- Activity levels were lower in patients with fractures and hallux valgus, as well as patients who underwent osteotomy.
- More research is needed to determine which score is best at measuring activity.