Evaluation and Treatment of Lesser Metatarsophalangeal Joint Arthritis

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Evaluation and Treatment of Lesser Metatarsophalangeal Joint Arthritis

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My disclosure is in the Final AOFAS Program Book.
I have no potential conflicts with this presentation.
Introduction

- Lesser metatarsophalangeal (MTP) joint arthritis is uncommon

- Limited published reports w/clinical and radiographic outcomes of surgery for lesser MTP arthritis
Methods

- 13 lesser MTP DJD in 12 patients
- Average follow-up 44 (range, 12-122) months
- 2nd MTP joint affected in ten feet
- 3rd MTP joint affected in three feet
Methods

- Clinical outcome scores prospectively collected
  - VAS
  - AOFAS forefoot score
  - SF-36
- Review of pre-op and post-op radiographs
  - Metatarsal deformity
  - Lesser MTP joint space narrowing
Methods

- Three lesser MTP joints underwent debridement alone

- Ten lesser MTP joints had debridement and modified-Weil osteotomy
  - 4 had additional soft tissue interposition
Clinical outcome scores preop and last followup

<table>
<thead>
<tr>
<th></th>
<th>Pre-Operative</th>
<th>Final Follow-Up</th>
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</thead>
<tbody>
<tr>
<td><strong>VAS</strong></td>
<td>7.3</td>
<td>3.3</td>
</tr>
<tr>
<td><strong>AOFAS</strong></td>
<td>38.5</td>
<td>63.5</td>
</tr>
<tr>
<td><strong>SF-36 PCS</strong></td>
<td>36.3</td>
<td>32.6</td>
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<tr>
<td><strong>SF-36 MCS</strong></td>
<td>54.7</td>
<td>54.7</td>
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</tbody>
</table>
Radiographic results

- Metatarsal length remained similar

- Pre and postop lesser MTP joint space narrowing

<table>
<thead>
<tr>
<th>Joint space narrowing</th>
<th>Preop</th>
<th>Last followup</th>
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</thead>
<tbody>
<tr>
<td>&lt;50%</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>&gt;50%</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>bone-on-bone</td>
<td>4</td>
<td>2</td>
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</tbody>
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Conclusions

- Symptoms improved with joint debridement +/- modified-weil osteotomy

- Despite clinical outcome improvement, patients had continued pain at average 44 months follow-up

- New or refined surgical interventions are needed based on this preliminary study