Early Radiographic & Clinical Results of Salto Total Ankle Arthroplasty As a Fixed-bearing Device

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Early radiographic and clinical results of Salto Total Ankle Arthroplasty as a Fixed-Bearing Device

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

• Europe - Salto total ankle is a 3-part, mobile-bearing device

• USA - approved only as two-part, fixed bearing device

• Limited published radiographic & clinical results of the fixed bearing device
Methods

• 23 fixed bearing Salto ankle replacements in 23 patients

• Average follow-up 36 months

• Complications, return to surgery, and survivorship of the prosthesis recorded
Methods

• Pre/Postop x-rays evaluated for
  – Component migration
  – Radiolucencies
  – Cyst formation

• Prospective outcomes data collected
  – VAS pain score
  – AOFAS ankle/hindfoot score
  – SF-36 outcome scores
Results

- 7 implants with radiolucencies
  - One revised to ankle fusion

- 7 cysts in 6 patients
  - None symptomatic

- Complications
  - I&D - 3
    - Intraop medial malleolus fracture – 2
    - Intraop lateral malleolus fracture – 1
Clinical Outcomes Data at average 36 months followup

<table>
<thead>
<tr>
<th></th>
<th>Preoperative</th>
<th>Final follow up</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAS Pain</td>
<td>7.6</td>
<td>1.3</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>AOFAS</td>
<td>42.7</td>
<td>88</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>SF 36</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical (PCS)</td>
<td>31.6</td>
<td>43.4</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Mental (MCS)</td>
<td>50</td>
<td>54.6</td>
<td>&lt;0.05</td>
</tr>
</tbody>
</table>
Survivorship and complications versus mobile bearing Salto studies

<table>
<thead>
<tr>
<th></th>
<th>Number ankles</th>
<th>Followup (months)</th>
<th>Survivorship Removal/Fusion</th>
<th>Survivorship any op</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Study</td>
<td>23</td>
<td>36</td>
<td>95.70%</td>
<td>82.60%</td>
</tr>
<tr>
<td>Bonnin</td>
<td>98</td>
<td>35</td>
<td>94.90%</td>
<td>91.80%</td>
</tr>
<tr>
<td>Schenk</td>
<td>218</td>
<td>29</td>
<td>84%</td>
<td>NA</td>
</tr>
<tr>
<td>Reuver</td>
<td>59</td>
<td>36</td>
<td>86.60%</td>
<td>83.10%</td>
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</tbody>
</table>
Conclusions

- Statistically significant improvements in clinical outcome scores at 3 years follow-up

- At Short-term followup (3 years):
  - Fixed bearing Salto comparable to published radiographic & clinical results of mobile-bearing Salto
References

