Outcome of Stainsby Forefoot Arthroplasty for Severe Rheumatoid Feet

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Disclaimer

The authors have no conflict of interest to declare.
Rheumatoid Forefoot Deformity

Dislocation of MTPJ

Distal displacement of plantar plate and fat pad

Painful callosities underneath metatarsal heads
Arthroplasty for Severe Rheumatoid Feet

- Treatment involves resection arthroplasty of the MTP joints of the lesser toes - Metatarsal head, Proximal phalanx or both.

- Resection of metatarsal heads does not restore the fat pad and plantar plate with resultant painful callosities.
Stainsby Surgical Technique

Divide extensors proximally

Proximal hemiphalangectomy

Restore plantar plate and fat pad beneath metatarsal head

Suture distal extensor tendon stump to flexor tendon
Arthroplasty for Severe Rheumatoid Feet

• The Stainsby procedure is a well accepted technique.

• Little information on the outcome of this procedure especially long term results.

• We present the largest series with longest follow up in literature apart from original authors’ work.
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Methods

- Prospectively collected data
- 71 feet in 48 patients
  - Group 1 - With 1st MTPJ fusion 57 feet
  - Group 2 - Without 1st MTPJ fusion 14 feet
- Preoperative and Postoperative AOFAS Score
- Satisfaction survey at final follow up
- Mean Follow up duration 5.4 years (2.2-9.8)
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Results

AOFAS Score

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<tr>
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<th>Preoperative</th>
<th>Postoperative</th>
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<tr>
<td>All</td>
<td>32.5</td>
<td>67.4</td>
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<tr>
<td>Group 1 (with MTPJ fusion)</td>
<td>29.4</td>
<td>72.0</td>
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<tr>
<td>Group 2 (without MTPJ fusion)</td>
<td>34.3</td>
<td>71.0</td>
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Difference between Group 1 and 2 statistically significant

Callosities

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<tbody>
<tr>
<td>None</td>
<td>76%</td>
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<tr>
<td>Painfree</td>
<td>26%</td>
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Results

Satisfaction with procedure
• Very Happy 35%
• Pleased 52%
• Unhappy 04%

93% would recommend the operation
• Definitely 78%
• With Reservation 15%
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Complications

• 4 cases of superficial wound infection resolved with oral antibiotics.

• 2 patients with broken retained wires in metatarsal with no consequence

• One non-union 1st MTPJ fusion not requiring revision
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Conclusion

• Long term benefits and very good satisfaction results with Stainsby procedure

• Better results if combined with 1st MTPJ fusion

• Stainsby procedure in an effective procedure but unfortunately not as popular probably because of lack of long term results