Subtalar Arthroscopic Findings after Osteosynthesis for Calcaneal Fractures

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My disclosure is in the Final AOFAS Mobile App. I have no potential conflicts with this presentation.
INTRODUCTION

A Sanders type II-IV calcaneal fracture is an articular fracture of the subtalar joint, which may shift to traumatic osteoarthritis. Therefore, we perform open reduction and fixation in order to obtain a good reduction in such fractures.

PURPOSE

To evaluate for subtalar arthroscopic findings after calcaneus fracture.
MATERIALS AND METHODS

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<tr>
<td>male : female</td>
<td>12 : 3</td>
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<tr>
<td>right : left</td>
<td>5 : 10</td>
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<tr>
<td>mean age (y.o.)</td>
<td>54.9 (38-84)</td>
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<td>from osteomytenesis to remove implant (month)</td>
<td>9.1 (5-15)</td>
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15 cases 15 feet who were underwent subtalar arthroscopy at the time implant removal operation from 2010 - 2014.

THE SANDERS CLASSIFICATION OF INTRAARTICULAR FRACTURES OF THE CALCANEUS

- Type I: 1
- Type II: 5
- Type III: 7
- Type IV: 2

Operation criteria there are some complains to hindfoot after Osteomytenesis of calcaneus fracture.

Clinical evaluation: (AOFAS Ankle-Hindfoot scale)

- Sanders - Subtalar joint injury (articular cartilage injury, soft tissue impingement, adhesion of the subtalar joint, synovitis)
EXTRACTION METHOD

- 2.7mm 30° scope
- Lateral position
- Postero-lateral portal, Antero-lateral portal

Excising the adhesion and synovitis of the subtalar joint.

Check the mobility of the subtalar joint to end the surgery.
RESULTS: ARTHROSCOPIC FINDINGS

- a) Articular cartilage injury
- b) Soft tissue impingement
- c) Adhesion of the subtalar joint
- d) Synovitis around peroneal tendon

![Images of surgical findings with annotations]
RESULTS: AOFAS SCALE

Pre Op: 82.
Post Op: 94.

*p<0.05

Mann-Whitney U test
The mean pre-operative AOFAS ankle-hindfoot score for all 17 patients was 49.4 points (35 to 66), and this improved to a mean of 79.6 (51 to 95) at final follow-up. At final follow-up the mean AOFAS score in patients who underwent arthroscopic release within one year of injury was significantly higher than that of those who had the procedure more than one year after injury.
DISCUSSION

- Improvement of impingement symptoms caused by synovectomy.
- Re-acquisition of the range of motion of the subtalar joint that can be evaluated in the subtalar joint after calcaneus fractures.
CONCLUSION

We evaluated the effectiveness of the Subtalar arthroscopy after osteosynthesis for calcaneal fractures. Soft tissue impingement and adhesion of the subtalar joint was observed in all cases. A patient who had an articular cartilage injury complained of low-level pain. Subtalar arthroscopy is a valuable tool after calcaneal fractures.

