Retrospective Chart Review of the Internal Brace Ligament Augmentation Repair in Conjunction with Open Broström Surgery in Ankle Patients

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Disclosures

CONFLICT TO DISCLOSE

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Our disclosures are in the Final AOFAS Mobile App.

We have potential conflicts with this presentation (JCC, JKE, JAR).
Introduction

• Broström is the most commonly used lateral ligament repair for chronic instability.

• There is growing evidence that a fairly large percentage will stretch out with time, resulting in recurrent instability.

• The Internal Brace Ligament Augmentation Repair is an accepted augmentation method for management of a Broström procedure.
Hypotheses

Augmentation of the Broström repair with an Internal Brace would

1) allow accelerated rehabilitation and return to activity,

2) will aid in long-term stability of the repair without a tendency to stretch out.
Methods

• Patients with lateral ankle instability procedures repaired with a Broström and Internal Brace Augmentation
  – Concomitant procedures other than debridement were excluded

• Prospectively evaluated at a one-time post-operative visit between 6 and 24 months s/p
  – Eighty-nine (89) patients
    • 30 males, 59 females
  – Mean age is 34 years (18-62)
  – 91% were non-smoking
  – Avg. BMI 27.5 ± 5.3 (range 18.8-43.8)
Methods

- **Outcome measures included**
  - Demographics
  - Surgical time
  - AOFAS
  - FAAM
  - Satisfaction
  - VAS scores
  - ROM
  - Raise Test
  - Calf strength compared to the contralateral limb
  - Return to sports
  - Adverse events
Results

• 8 patients were revision procedures

• Mechanism of Injury
  – 60% of the injuries resulted from severe sprains to the involved ankle from normal ADL
  – 40% = sport injury

• Complication rate = <1%

• Avg. surgical time 33.2 ± 8.4 minutes (16-60)
Results

- Mean follow up for outcome scores 11.8 ± 6 months (range 6 - 27 months)
- Return to sports was 84 days
- Avg. Post-op VAS 0.8 ± 1.4
- Avg. Satisfaction scores were 9.1 ± 1.6
- Avg. AOFAS was 93.9 ± 9.5, 55% of patients reported an ideal max score of 100
- FAAM, 78.6% subjects reported 90 to 100 on the Sports score.
Results

- 63% (56) patients were brace free with activity

- Objective calf strength examination (actual girth measured) proved not significantly different from the contralateral limb. (p=0.894)

- 92% had a negative anterior drawer

<table>
<thead>
<tr>
<th>Range of Motion:</th>
<th>Operative Side</th>
<th>Contralateral Side</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dorsiflexion (DF)</td>
<td>9.3 ± 3.2 cm</td>
<td>10.4 ± 3.6 cm</td>
<td>0.030</td>
</tr>
<tr>
<td>Plantarflexion (PF)</td>
<td>48.2 ± 11.9 degrees</td>
<td>49.1 ± 12.6 degrees</td>
<td>0.622</td>
</tr>
</tbody>
</table>
Conclusions

- These results suggest the Internal Brace Augmentation of Broström procedure is safe and efficacious.