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

J Chris Coetzee MD, J Kent Ellington MD, James A Ronan, Rebecca M Stone MS, ATC
Disclosures

NO CONFLICT TO DISCLOSE

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My disclosure is in the Final AOFAS Mobile App.

I have no potential conflicts with this presentation.
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
  – Fifteen (15) patients
    • 4 males, 11 females
  – Mean age is 35.9 years (20-56)
  – 87% were non-smoking
  – Avg. BMI 29 ± 6 (range 22 to 44)
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

• 7/15 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 = 7%

• Avg. surgical time 37 ± 10 minutes (20-53)
Results

- Mean follow up for outcome scores 16.8 ± 6.8 months (range 6 - 24 months)
- Return to sports was 76 ± 22 days (range 48-122)
- Avg. Post-op VAS 1.5 ± 2.6
- Avg. Satisfaction scores were 9.5 ± 1.6
- Avg. AOFAS was 93.4 ± 10.3
- FAAM, 14 subjects reported from 90 to 100 on the ADL total score.
Results

• 14 patients were brace free with activity

• Objective calf strength examination (actual girth measured) proved not significantly different from the contralateral limb. (p=0.837)

• 75% had a negative anterior drawer

<table>
<thead>
<tr>
<th>Range of Motion:</th>
<th>Operative Side</th>
<th>Contralateral Side</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dorsiflexion (DF)</td>
<td>9.3 ± 3.0 cm</td>
<td>10.4 ± 3.2 cm</td>
</tr>
<tr>
<td>Plantarflexion (PF)</td>
<td>38 ± 7 degrees</td>
<td>37 ± 8 degrees</td>
</tr>
<tr>
<td>p = .349</td>
<td>p = .708</td>
<td></td>
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</tbody>
</table>
These results suggest the Internal Brace Augmentation of Broström procedure is safe and efficacious.