Arthroscopic modified Broström procedure for chronic lateral ankle ligament injury.

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

The open modified Brostrom-Gould anatomic repair technique is widely accepted as the reference standard for lateral ankle stabilization. Recently, the arthroscopic modified Broström procedure has been reported. We began using the arthroscopic modified Broström procedure at our facility in 2013.

Purpose

To evaluate the effectiveness of the arthroscopic modified Broström procedure for treating chronic lateral ankle ligament injuries.
Material & Method

<table>
<thead>
<tr>
<th>Male : Female</th>
<th>7 : 8</th>
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<tbody>
<tr>
<td>mean age</td>
<td>32.6(13-64)</td>
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<tr>
<td>Follow up (month)</td>
<td>8.6(5-18)</td>
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<tr>
<td>n= 15 feet (15 patients)</td>
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Operation criteria

- **Talar Tilt Angle (TTA)**
- **Anterior Drawer Distance (ADD)**

- TTA ≥ 5° or ADD ≥ 6mm
- ≥6months from the first injury
- Multiple times ankle sprain
- Feeling ankle instability

- Operation time and complication
- Radiological results: Talar Tilt Angle (°), Anterior Drawer Distance (mm)
- Clinical results: AOFAS Ankle-Hindfoot Scale
Surgical technique

Portal: 3 portal (antero-medial, antero-lateral, accessory antero-lateral)

- Inserted two 2.8-mm suture anchors in the anteroinferior aspect of the lateral malleolus from the antero-lateral portal.
- A suture passer was introduced into the joint percutaneously from just above the extensor retinaculum, then a suture was passed through the extensor retinaculum and anterior talofibular ligament (ATFL), where it was plicated to the lateral malleolus.

Noninvasive Ankle Distractor Micro Suture Lasso (Arthrex)
Result

- Operation time (n=15) 129.2min(71-204)
  - Ligament repair (n=9) 101.1min(71-175)
  - Ligament repair + additional procedure (n=6) 162.3min(136-204)

- Complication: 0/15 cases
Result

### TTA(°)

- **pre Op**: 9.1°
- **post Op**: 3.5°

### ADD(mm)

- **pre Op**: 7.1 mm
- **post Op**: 5.1 mm

### AOFAS score

- **pre Op**: 63.9
- **post Op**: 95.8

*Mean p<0.05*
Discussion

The advantage of arthroscopic repair to open repair ...

✓ Small incision
✓ Less pain
✓ Diagnosis and evaluation of intra-articular injuries

All patients reported subjective improvement of their ankle instability. The mean AOFAS score increased from 67 preoperatively to 97 at final follow-up. No major complications were reported. 

*Vega J et al. FAI 2013*

The average postoperative AOFAS score was 85.3 and average satisfaction was 3.8. The patients were evaluated after 24.5 month average follow up. 

*Corte-Real et al. FAI 2009*
Conclusion

- We have been treated for fifteen patients with chronic lateral ankle ligament injuries and evaluated with respect to the short-term radiological and clinical outcomes.

- The arthroscopic modified Broström procedure is a useful surgical technique for performing ligament reconstruction under direct arthroscopic visualization.
Reference


