Outcomes following repeat ankle arthroscopy for osteochondral lesions of the talus (OLT)

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Disclosure

NO CONFLICTS TO DISCLOSE:
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Background

• Management of symptomatic OLT previously treated with arthroscopy remains controversial
• Many authors assume poorer results with repeat ankle arthroscopy and advocate for open interventions, particularly for larger OLT defects
• However, minimal data exits on the role of revision ankle arthroscopy in the setting of failed prior ankle arthroscopy
Only 1 prior study (Savva et al., FAI, 2007) has examined repeat ankle arthroscopy for OLT and deemed it a reasonable option for small-to-medium OLT defects.

Similarly, the purpose of our study was to explore clinical outcomes in patients undergoing repeat arthroscopy for OLT.
Materials and Methods

• Billing codes from 1992-2015 retrospectively identified 38 patients who underwent repeat ankle arthroscopy and microfracture for OLT
• Chart review excluded 19 of 38 patients who were treated with open procedures, arthroscopic arthrodesis, or osteotomies
Materials and Methods

Questions:

1. On a scale of one to ten, with ten being most satisfied, how would you rate your satisfaction for the surgery performed by Dr. Johnson, Dr. Klein, or Dr. McCormick?

2. On a scale of one to ten, with ten being the most painful, please rate your current level of pain.

3. Since your procedure, have you been able to return to your normal desired sport or activity?

4. Since your surgery with Dr. Johnson, Dr. Klein, or Dr. McCormick, have you had any subsequent surgery on the involved ankle?

5. Given what you know now, would you undergo the surgery again?

6. In order to perform your activities of daily living do you require any assistance or the use of assistive devices?

- 15 of 19 patients were then successfully contacted by phone and asked a series of questions on clinical outcome and surgical satisfaction

- OLTs were also categorized as either small (≤150 mm²) or large (> 150 mm²) according to operative dimensions using previously published OLT sizing criteria \cite{1, 8, 11, 12}
Results

- 15 patients total
  - 6 small OLTs vs. 9 large OLTs
- No differences in sex, BMI, or lesion location (medial vs. lateral) based on lesion size ($P > .05$)
- Patients with larger OLTs were younger at time of repeat arthroscopy (mean age 34.4y vs 46.7y, $P = .026$)

### Table 1. Patient Demographics

<table>
<thead>
<tr>
<th></th>
<th>Small (n=6)</th>
<th>Large (n=9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>46.7</td>
<td>34.4</td>
</tr>
<tr>
<td>Sex³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>2 (33%)</td>
<td>6 (67%)</td>
</tr>
<tr>
<td>Female</td>
<td>4 (67%)</td>
<td>3 (33%)</td>
</tr>
<tr>
<td>BMI (kg/m²)</td>
<td>32.2</td>
<td>29.6</td>
</tr>
<tr>
<td>Lesion Location³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medial</td>
<td>4 (67%)</td>
<td>9 (100%)</td>
</tr>
<tr>
<td>Lateral</td>
<td>3 (50%)</td>
<td>0 (100%)</td>
</tr>
<tr>
<td>Smoking status³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>3 (50%)</td>
<td>1 (11%)</td>
</tr>
<tr>
<td>No</td>
<td>3 (50%)</td>
<td>8 (89%)</td>
</tr>
<tr>
<td>Average lesion size (mm²)</td>
<td>112</td>
<td>195</td>
</tr>
</tbody>
</table>

³Number (% of cohort)

Abbreviation: BMI, body mass index
Results

• At midterm phone survey follow-up (average: 5.0 years, SD: 2.8):
  – Reasonable patient-reported satisfaction
    • Average 7.3/10 (SD 2.7)
  – But moderate amounts of residual pain
    • Average 4.6/10 (SD 2.3)
• Further surgery was performed after repeat arthroscopy in 3/15 patients (20%)
• Only 1 patient developed a postoperative complication (superficial DVT treated with observation)
• 13/15 patients (87%) stated they would undergo the procedure again
Results

Based on lesion size, small (n=6) and large OLTs (n=9) had similar:

- Post-operative pain scores (4.2 ± 3.7 versus 4.9 ± 3.2)
- Postoperative satisfaction levels (7.5 ± 3.4 versus 7.2 ± 2.3)
- Reoperation rates (33% versus 22%) (P>.05)
Discussion

• Repeat ankle arthroscopy appears to offer high patient satisfaction but residual pain in a small cohort \((n=15)\)

• No differences in pain levels, satisfaction scores, or reoperation rates between small or large OL Ts

• Patients need to be aware of potential for further surgery as reoperation rates were relatively high \((20\%)\)
Conclusion

• Repeat ankle arthroscopy can be performed safely and can provide reasonable satisfaction for patients with failed prior procedure regardless of OLT size.

• Future study with increased sample size utilizing standardized outcome measurements and clinical evaluation should be considered.
References