Management and Outcomes of Scapholunate Interosseous Ligament Injuries
A Retrospective Review
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Objectives
- Compare outcomes of acute and chronic surgery
- Describe risk factors for surgical failure
- In the chronic setting, compare Ligament Reconstruction to Repair/Capsulodesis
- Describe injury patterns that lead to surgery in chronic period

Overall Results

<table>
<thead>
<tr>
<th>Failure Rate</th>
<th>100%</th>
<th>80%</th>
<th>60%</th>
<th>40%</th>
<th>20%</th>
<th>0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute</td>
<td>4%</td>
<td></td>
<td></td>
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<tr>
<td>Chronic</td>
<td>18%</td>
<td></td>
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Methods
Retrospective chart review of 80 patients (82 wrists) who underwent soft-tissue wrist repair/reconstruction.

Exclusion criteria:
- Arthritis / SLAC wrist
- Previous wrist surgery

RISK FACTORS FOR FAILURE
- **SIGNIFICANT**
  - Workers Comp -- Odds Ratio 5.2
  - Chronic Setting -- Odds Ratio 5.7
- **TREND**
  - Smoking -- OR 2.6
  - Complete Tear (Grade 4) -- OR 3.5
- **NO RELATION TO FAILURE**
  - Age -- 39 vs 38
  - Dominant hand -- 12.5% dominant vs 16% non

Conclusions
Failure more likely in chronic setting, and among Workers Comp patients
- Ligament Reconstruction is preferable to capsulodesis for chronic SLIL injuries
- Comparable functional outcomes
- Superior Radiographic outcomes
- Trend towards lower failure rate

Isolated Injuries

Among isolated injuries receiving surgery:
- 86% of isolated injuries receive chronic surgery
- 82% of chronic surgeries are for isolated injuries

Chronic Management:
Repair ± Capsulodesis Vs. Ligament Reconstruction

<table>
<thead>
<tr>
<th>SL Gap following Chronic Repair</th>
<th>Days After Surgery</th>
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<tbody>
<tr>
<td>rep/cap</td>
<td>Lig Recon</td>
</tr>
<tr>
<td>SL Gap (mm)</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td></td>
</tr>
<tr>
<td>-10</td>
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<table>
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<th>SL Angle following Chronic Repair</th>
<th>Days After Surgery</th>
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<tr>
<td>rep/cap</td>
<td>Lig Recon</td>
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<tr>
<td>SL angle (degrees)</td>
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</tr>
<tr>
<td>0</td>
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<tr>
<td>-100</td>
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</tbody>
</table>

DASH scores similar
- Grip Strength Similar
- Failure trend in Repair/Capsulodesis group (25% vs 11%, Non-significant, CI 0.51–13.88)

Failure Trend in Repair/Capsulodesis group (25% vs 11%, Non-significant, CI 0.51–13.88)

Acute intervention is preferable – use lower early threshold for surgery

Isolated SLIL Injury Surgical Outcomes

- 24% failure rate
- Failed
- Non-failed

Isolated injuries more likely to receive surgery in chronic period, despite higher failure rates.