Patellar Dislocation and REHABILITATION

Peter R. Kurzweil, MD Long Beach, CA

Concentrate on non-operative treatment of acute patellar dislocation and how to take care of those MPFL reconstructions post-op

Non-operative treatment (Maenpaa AJSM 1997)
100 patients - 3 treatment groups:
1. Patellar brace only
2. Posterior splint x 6 weeks
3. Plaster cast x 6 weeks

Results:
- 3x higher re-dislocation in Group 1
- More stiffness Group 3

Camanho (Arthroscopy 2009)
33 patients – 2 treatment groups
- 16 Non-op: 3 weeks immobilization followed by PT
- 17 MPFL repair
  - 10 off patella – (repair via scope)
  - 7 off femur (mini-open)
- Results at 3 years:

<table>
<thead>
<tr>
<th>Recurrence</th>
<th>Functional Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-operative</td>
<td>8/16</td>
</tr>
<tr>
<td>MPFL</td>
<td>0</td>
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</tbody>
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Treatment 76 military recruits (Sillanpaa AJSM 2008)
- 30 Arthroscopic medial retinacular plication
- 46 non-op (except 11 had removal loose body) - what was non-op? specifically
- Results at 7 years:

<table>
<thead>
<tr>
<th>Redislocation Rate</th>
<th>Return to Pre-Injury Activity Level</th>
</tr>
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<tbody>
<tr>
<td>Surgery</td>
<td>19%</td>
</tr>
<tr>
<td>Non-op</td>
<td>23%</td>
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</tbody>
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Operative versus non-operative management of patellar dislocation. A meta-analysis. (Smith, Knee Surg 2011)
- Operative management
  - Associated with a significantly lower risk of subsequent patellar dislocation
  - But a significantly higher risk of P/F arthritis
- We don’t know what non-op management means
Acute Patellar Dislocation --- Buchner 2005

- 126 patients f/u 8 years
  - Conservative
  - Diagnostic Scope
  - Immediate Reconstruction – repair medial retinaculum
  - Immediate Fixation of OC Fx (29%)

- Results → no difference between groups
  - Functional Results 85% Good
  - Recurrence Rate 26% (was 52% for age < 15y/o)
    - 61% within one year
  - Activity level not quite same

Non-op vs Op Rx of Acute Patella Dx age < 16 y/o -- Palmu 2008

- 62 patients mean age 14 years
- Operative group – 36
  - Repair medial structures +/- LRR

<table>
<thead>
<tr>
<th></th>
<th>Redislocation Rate</th>
<th>Subjective – Good or Excellent</th>
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</thead>
<tbody>
<tr>
<td>Surgery</td>
<td>67%</td>
<td>67%</td>
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<tr>
<td>Non-op</td>
<td>71%</td>
<td>75%</td>
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Patellar Dislocation – Two Populations

1. Abnormal Forces on a Normal P/F Joint
2. Normal Forces on an abnormal P/F joint

- Predisposing Factors:
  - Hyperlaxity
  - Femoral Anteversion
  - Trochlear Dysplasia
  - Genu Valgum
  - Patella Alta
  - Patella Dysplasia
  - Increase Q- angle
  - Increased TT-TG

What should you do with Acute Patellar Dislocation?
All get an MRI

Determine if xray and MRI normal or abnormal

If no predisposing factors, then conservative care:

- Lateral buttress brace
- SLR
- Quad isometrics
- ROM as tolerated
- Hip Strength