Meniscus tear treatment: PT or Surgery?

Nicholas Colyvas, M.D.
Clinical Professor
UCSF Department of Orthopaedics
Sports Medicine and Shoulder Surgery
NO DISCLOSURES
RELEVANT TO THIS TALK
Case review: Knee

17 yr old
Star player Football and Basketball for High school
Sustains twisting injury to knee with a tackle.

Exam
Knee Swollen
Stable ligament exam
Tender lateral joint line, positive MC Murray’s

XRS
negative
MRI
MRI
Dagnosis

- Lateral Meniscus tear

Considerations

- Patient age and activity level
- Type of tear
- Underlying condition of the knee
- Associated injuries
Audience Response: Treatment plan

1. Physical Therapy

2. NSAIDS, ice, rest

3. Injections (cortisone/PRP/Stem cells)

4. Surgery
Case study: Knee

- 46 yr old
- h/o prior ACL reconstruction 10 yrs ago
- Progressive mostly medial pain
- No significant instability

EXAM
- Minimal effusion
- Stable knee
- Tender medial and lateral joint lines
- McMurray's, Thessaly positive
MRI

- Medial and lateral meniscal tears
Diagnosis

- Lateral and medial Meniscus tears, some DJD

Considerations

- Patient age and activity level
- Type of tear
- Underlying condition of the knee
- Associated injuries
Audience Response: Treatment plan?

1. Physical Therapy
2. Unloader brace
3. Injections; Cortisone/PRP
4. Surgery
Concern about the value of meniscectomy in degenerative knees

Surgery versus Physical Therapy for a Meniscal Tear and Osteoarthritis

Conclusion: There were no significant differences between arthroscopic meniscectomy and nonoperative management with strengthening exercises in terms of relief in knee pain, improved knee function, or increased satisfaction in patients after 2 years of follow-up.
Concern about the value of menisectomy in degenerative knees
Why does your insurance cover Meniscus Surgery when it’s been proven NOT to work?
Don’t get knee surgery for that middle aged meniscus tear!

Regenexx®
Why does Meniscus Surgery lead to Arthritis?
Biomechanics and Clinical Outcomes of Partial Meniscectomy

Abstract
Partial meniscectomy for meniscus tears is one of the most common procedures performed by orthopaedic surgeons. Much research has been done to evaluate the biomechanical consequences and clinical
### Table 2

<table>
<thead>
<tr>
<th>Authors</th>
<th>Age</th>
<th>Number of Patients Undergoing APM</th>
<th>Follow-up</th>
<th>Clinical Outcome Tests</th>
<th>Summary of Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kise et al</td>
<td>48.9 ± 6.1</td>
<td>70</td>
<td>3, 12, 24 mo</td>
<td>KOOS</td>
<td>KOOS improved until 12 mo and was sustained until 24 mo.</td>
</tr>
<tr>
<td>Herrlin et al</td>
<td>54 ± 5</td>
<td>96</td>
<td>2 and 5 yr</td>
<td>KOOS, Lysholm, Tegner, VAS</td>
<td>Improvement in all scores at 2 and 5 yr</td>
</tr>
<tr>
<td>Katz et al</td>
<td>59 ± 7.9</td>
<td>161</td>
<td>6, 12 mo</td>
<td>WOMAC, KOOS, SF-36</td>
<td>Improvement of all scores at 6 and 12 mo</td>
</tr>
<tr>
<td>Yim et al</td>
<td>54.9 ± 10.3</td>
<td>50</td>
<td>3, 6, 12, 24 mo</td>
<td>Lysholm, Tegner, VAS, patient subjective knee pain and satisfaction</td>
<td>Lysholm improvement at 3 mo that was sustained until 2 yr. The VAS score improvement until 6 mo and sustained until 2 yr. 94% of patients reporting improved or complete pain relief at 2 yr. 92% satisfied or completely satisfied at 2 yr.</td>
</tr>
</tbody>
</table>

APM = arthroscopic partial meniscectomy, KOOS = knee injury and osteoarthritis outcomes score, SF = short form health survey, VAS = visual analog scale, WOMAC = Western Ontario & McMaster Universities Osteoarthritis Index
Treatment options for meniscus tear

- **Acute vs Chronic**
  - Acute: Refer for surgical evaluation
  - Chronic:
    - **Active, younger person**
    - **Active, older person**
    - **Sedentary, older person OA on Xray imaging**
    - **PT, activity modification**
Meniscus tears in Degenerative knees

- Definitely try conservative management first. Don’t forget unloader brace in appropriate patients

- May consider PRP

- Surgery if no good response to non operative treatment, but with caution
IN SUMMARY

- Decision for surgery not always straightforward
- Mostly conservative treatment first
- Some conditions do better with early surgical intervention
Thank you!

Nicholas Colyvas MD
Clinical Professor
Orthopaedic
Sports Medicine