Partial Percutaneous Medial Collateral Ligament Release

Investigation at Lake Charles Memorial Hospital

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Arthroscopic Viewing of the Medial Meniscus

- Sometimes difficult to see the posterior horn, this is especially true when performing a meniscal repair of a transplantation.
- Special Instruments/Portals
  - Curved shavers
  - Smaller shavers
  - Lasers
  - Accessory portals
    - Article in this months Journal

Can lead to iatrogenic damage of the cartilage surface of the knee
Release of the MCL

- Introduced to me by instructor at AANA OLC meeting during meniscal repair session.

- Review of literature

Review of literature

- Arthroscopic all-inside repair for a tear of posterior root of the medial meniscus: a technical note. 2008 Choi NH, Son KM, Victoroff BN

Review of Literature

- Percutaneous medial collateral ligament release in arthroscopic medial meniscectomy in tight knees. 2012 Fakioglu O, Ozsoy MH, Ozdemir HM, Yigit H, Cavusoglu AT, Lobenhoffer P.


Study

- Is there residual laxity following the MCL release?
- IRB from LCMH board
- Prospectively Random Blinded
- 50 consecutive arthroscopic knee subjects
  - no ligament damage
  - patient consent
- 25 PPMCLR, 25 controls random
- Measured joint laxity with Telos Stress Device preop and 6 weeks post op.
Telos Machine

- 11 Kg stress
- Knee at 30 degrees of flexion
Radiograph
Methods

- Measured the laxity as the distance from the center of the medial femoral condyle to the corresponding tibial plateau on stress x-ray
- 2 blinded radiologists
- PPMCLR group had release from outside/in utilizing an 18 gauge needle introduced from the posterior medial knee
- The usual experienced amount of opening intra-operatively was on the order of 3–5 mm.
- The post-operative treatment was same in both groups.
  - FWB with crutches
  - Immediate ROM, Quad rehab
  - Dressing changes in am
Students paired T-test

No statistical difference between the pre and post op condition in both the control and the needle group. $p = .2$

No statistical difference between the needle and the control grouping in laxity pre or post op. $t = .19$

Thus the null hypothesis is false.

The is no laxity in the PPMCLR group after the intervention

No difference between the groups
Complications/Weaknesses

- intra-operative fluid collection about the medial knee

- Weaknesses
  - Multiple different diagnosis
  - Patient numbers
Conclusion

- Able to increase visualization
  - Meniscal repair
  - Meniscal transplantation
- Safe, no increased laxity following the release
- No postoperative bracing or change in protocol
- Chondroprotective