Conservative treatment of a javelin thrower at national level with partial MCL rupture of the elbow
Anatomy

Anterior Medial Collateral Ligament (AMCL)
Stability flexion-extension movements

Posterior Medial Collateral Ligament (PMCL)
Valgus stability 60-135° flexion-extension

Transversal ligament
Pathophysiology
Case

Javelin thrower
Men
Age 25y
Redirected by orthopedic surgeon
MR-scan
Diagnose: partial rupture of the MCL elbow right

National championship in 10 weeks
Clinical examination

Trauma with javelin throwing
Sharp pain medial side elbow
Stiff elbow in extension
Unstable feeling at javelin throwing

NPRS max: 9, NPRS rest: 0
Moving Valgus Stress Test positive
Clinical examination

PROM elbow:
supination-extension deficit
General Examination

GIRD shoulder
External rotation deficit shoulder
Kinetic chain
GIRD

≥ 25° deficit internal rotation (compare with other side)
≥ 10° deficit total rom
External Rotation

ELBOW

Risk factors for elbow injuries among young baseball players

Mikio Harada, MD, PhD, Masatoshi Takahara, MD, PhD,*, Nariyuki Mura, MD, PhD, Junya Sasaki, MD, Tomokazu Ito, MD, PhD, Toshihiko Ogino, MD, PhD
External Rotation

Risk factors for baseball players

Mikio Harada, MD
Junya Sasaki, MD
Kinetic Chain
Treatment

3 weeks 2x a week
3 weeks 1x a week
4 weeks 1x in 2 weeks

- Mobilizations shoulder
  Dorsal capsular
  External rotation
- Mobilizations elbow
  Adjustments extension
  Adjustments supination
- Home exercises: stretching
- Advice for loading, assisted exercises, prevention
Treatment

3 weeks 2x a week
3 weeks 1x a week
4 weeks 1x in 2 weeks

• Mobilizations shoulder
  Dorsal capsular
  External rotation
• Mobilizations elbow
  Adjustments extension
  Adjustments supination
• Home exercises: stretching external and internal rotation shoulder
• Strength build up
• Advice for loading, assisted exercises, prevention
Exercises

- Don’t work against gravity! Start with exercises in supine position
- Start between 10-90° flexion
Results

• Evaluation after 4 weeks intervention:

• PROM elbow
  Supination 90°
  Extension 3° hyperextension
• PROM shoulder
  GIRD none
  External rotation 110°

Conclusion: no movement limitations
Discussion

• No evidence predictive values of conservative treatment
• Causality movement shoulder in relation to elbow complaints not substantiated
• Contradiction external and internal rotation shoulder as a risk factor
Conclusion

• ROM shoulder may influences elbow complaints overhead athletes
• ROM shoulder can be a starting position for treatment overhead athletes
• Causality ROM shoulder in relation to elbow complaints not substantiated
References


