Physical Therapy: The Physician’s Perspective

Justin M. Wright, MD
CAQ-Sports Medicine
Assistant Directory, Sports Medicine Fellowship
Department of Family and Community Medicine
Paul L Foster School of Medicine
My Approach

• I am not a surgeon
Communication

• Key for successful treatment and diagnosis
  – Face-to-face
  – Telephone
  – Written evaluations/progress notes
Shoulder

• Common conditions
  – Rotator cuff disease
    • Tendinopathy → tear
  – Adhesive capsulitis
    • Idiopathic
    • Motion restriction and pain
  – Instability
    • Traumatic
    • Atraumatic
What’s the evidence?

• Rotator cuff tendinopathy/impingement
  – Exercise effective for pain, disability (Littlewood, et al. 2012)
  – Exercise improves pain and function, but no effect on motion or strength (Kuhn, 2009)

• Rotator cuff tear
  – Some evidence for exercise in management of full thickness tears (Ainsworth, et al. 2007)
  – Trial of therapy for older patients without profound weakness or acute tear (Wolf, et al. 2007)
  – 75% of atraumatic tears did well with therapy after 2 years (Kuhn, et al. 2013)

• Adhesive capsulitis
  – Therapy in conjunction with steroid injection effective (Carette, et al. 2003)
  – Physical therapy alone not effective (Cochrane, 2003)
When to send to surgery?

- **Rotator cuff tendinopathy/impingement**
  - No improvement after 6-12 weeks of therapy

- **Rotator cuff tear**
  - Age <50 with symptoms <3 months
  - No improvement after 6-12 weeks of therapy
  - Large, retracted tears

- **Adhesive capsulitis**
  - No improvement after 6-12 weeks of therapy
Knee

• Common conditions
  – ACL tear
  – Meniscal injury
  – Patellofemoral Syndrome
  – Osteoarthritis
What’s the Evidence?

• **ACL tear**
  – Selected athletes can return to play when treated without surgery (Hurd, et al. 2008)
  – Knee stability can be improved by neuromuscular rehabilitation (Delince, et al. 2010)
  – Preoperative quadriceps strength predicts function 6 months after ACL reconstruction (Logerstedt, et al. 2013)
  – Preoperative quadriceps strength is a significant predictor of knee function two years after anterior cruciate ligament reconstruction (Eitzen, et al. 2009)

• **Meniscal injury**
  – Arthroscopic partial medial meniscectomy followed by supervised exercise was not superior to supervised exercise alone in terms of reduced knee pain, improved knee function and improved quality of life (Herrlin, et al. 2006)
  – No significant difference in arthroscopic meniscectomy and physical therapy in degenerative tear (Yim, et al. 2013)
  – 58% of patients with meniscal tear successfully treated with NSAIDs, physical therapy, and rest (Rathleff, et al. 2013)
What’s the Evidence?

• Patellofemoral Pain Syndrome
  – Quadriceps and hip strengthening important in treatment
  – Biofeedback, patella taping, and foot orthoses may augment above exercises (Bolgla and Boling, 2011)

• Osteoarthritis
  – Arthroscopic surgery provides no additional benefit over physical and medical therapy (Kirkley, et al. 2008)
  – Aerobic and strengthening exercise, land- and water-based, are beneficial for mild to moderate arthritis (Golightly, et al. 2012)
  – No difference in functional improvement between partial meniscectomy and physical therapy in patients with osteoarthritis (Katz, et al. 2013)
What goes to surgery?

• ACL tear
  – Young, active patient
  – Recurrent giving way episodes
  – Concomitant meniscal or collateral ligament damage

• Meniscal tear
  – Mechanical symptoms – locking, giving way, catching

• Osteoarthritis
  – Mechanical symptoms
  – Arthroplasty if conservative measures have been ineffective
Ankle

- Ankle sprain
  - Lateral ankle
  - Inversion injury
  - Injuries to:
    - Anterior talofibular ligament (ATFL)
    - Calcaneofibular ligament (CFL)
    - Posterior talofibular ligament (PTFL)
What’s the Evidence?

• Acute ankle sprain
    • Surgery plays only minor role in acute ankle sprains
    • Neuromuscular training should support functional rehabilitation after ankle sprain
    • Evidence that balance training can be used after an acute ankle sprain in an effort to reduce future ankle sprains.
Concussion

• Prolonged symptoms or specific deficits
• Vestibular rehabilitation
• Cervical Spine
  – Complex proprioceptive system that has connections to the vestibular and visual systems
  – Stretching, strengthening, manual therapy
Summary

• Physical therapy
  – Beneficial in most situations
  – My first line treatment

• Surgery
  – Failure of conservative treatment
  – Select conditions
    • Young patients with rotator cuff tears
    • Large amount of weakness with rotator cuff tear
    • Most ACL injuries (though therapy prior to surgery)
    • Acute meniscal tears with mechanical symptoms
Questions?
Sources

Sources

Sources


