

Therapeutic Strategies for Non-Surgical Labral Pathology

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Labral Pathology

- Usually begin with trauma, anterior capsular laxity, hip dysplasia, CAM lesion, Pincer lesion
 - Injury results from repetitive twisting, cutting or pivoting
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- Bolga LA & Garrison C. A Biomechanical Perspective for the Influence of the Hip on Lower Extremity Pathology. A Home Study Course

Biomechanics of a Labral Tear

- Labrum deepens the socket and creates a “seal” that restricts fluid in and out of the joint.
- This suction acts as a source of stability within the hip joint
- It also helps distribute weight bearing forces evenly within the hip joint
- Bolga LA & Garrison C. A Biomechanical Perspective for the Influence of the Hip on Lower Extremity Pathology. A Home Study Course

Biomechanics of a Labral Tear

- Movements that result in labrum/capsular irritation
 - Flexion with Internal Rotation
 - Extension with External Rotation
- Irritates the anterior-superior aspect of the labrum
 - Region has less tensile and compressive loading
- Tears most often occur in anterior-superior aspect of labrum
- Bolga LA & Garrison C. A Biomechanical Perspective for the Influence of the Hip on Lower Extremity Pathology. A Home Study Course

Research & Non-Operative Rehab

- Hunt et al (2012)
 - 52 subjects
 - 44% or 22 subjects were satisfied with PT
 - 56% of 29 subjects required surgery
 - 3 Phase Treatment Plan
 - PT Approach: Movement Impairment Syndromes (Sahrmann based Therapy)
 - Hunt D et al. Clinical Outcomes Analysis of Conservative and Surgical Treatment of Patients with Clinical Indications of Prearthritic, Intra-articular Disorders. *Phys Med. Rehabil.* 2012; 4:479-487

Research & Non-Operative Rehab

- Yazbek et al (2011)
 - Case Series of 4 patients receiving traditional PT, made meaningful changes in function with PT.
 - Did not require surgery

- Yazbek et al. Nonsurgical Treatment of Acetabular Labrum Tears: A Case Series. *JOSPT*. 2011; 41(5): 346-353



Dysfunctional Movement Patterns

- TFL is more dominant than the psoas
- TFL is more dominant than the gluteus medius
- Hamstring dominant over the gluteus maximus
- Medial hamstring dominant over the lateral hamstring



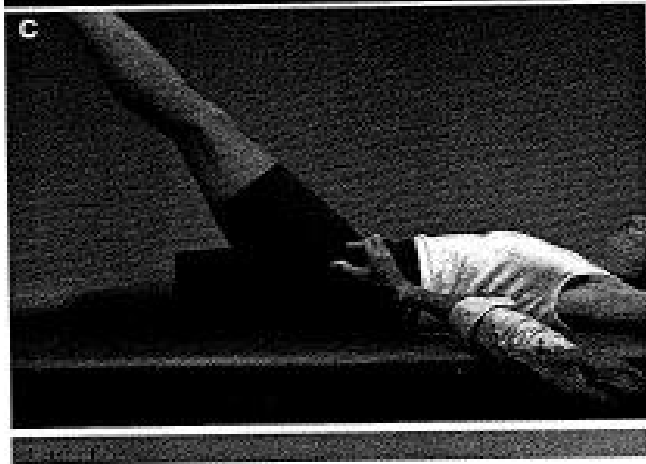
Dysfunctional Movement Patterns

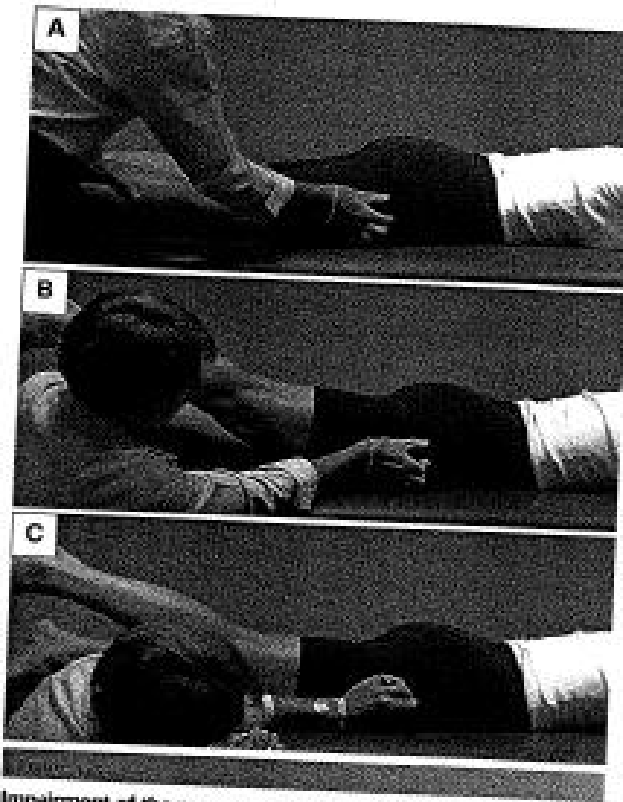
- Anterior displacement of the greater trochanter with straight leg raising
- Anterior displacement of greater trochanter with prone hip extension (excessive hamstring action creates a fulcrum resulting in dysfunction)



Non-Traditional Test and Measures

- Straight Leg Raise Test
- Prone Hip Extension
- Hip Abduction Manual Muscle Test
- Knee Extension in Sitting
- Sahrman S. Diagnosis and Treatment of Movement Impairment Syndromes. 2002. Mosby





Impairment of the movement pattern of the greater trochanter during hip extension. Instead of maintaining a relatively constant position or moving in a slightly posterior direction during hip extension, the greater trochanter moves in an anterior or anterior medial direction. *A*, Starting position. *B*, Correct movement of the greater trochanter during hip extension. *C*, Anterior displacement of the greater trochanter during hip extension.

Treatment Approach

- Early Management Phase (0-4 weeks)
 - Patient Education
 - Vital to review common daily activities
 - Manual Therapy
 - Self Soft Tissue Mobilization Techniques
 - Corrective Exercise
 - Sahrman Based Exercise Strategies



Manual Therapy

- Lateral Glide Mobilization with Movement
- Posterior Glide of the Hip

- TFL Inhibition
- Posterior Greater Trochanter Release
- Hamstring Inhibition

Sahrmann Corrective Exercise

- Quadruped Rocking
- Prone Knee Flexion
- Prone Hip External Rotation
- Prone Hip Internal Rotation
- Prone Hip Extension
- Sidelying Hip Abduction with Extension and ER
- Seated Knee Extension with ER emphasis
- Seated Hip Flexion Isometrics