Recurrent Shoulder Dislocation

www.fisiokinesiterapia.biz
- Anatomy of the Shoulder
- Shoulder Dislocations
- Case Study
- Rehabilitation Pick List
Anatomy of the Shoulder

- Articulations
  - Sternoclavicular
  - Acromioclavicular
  - Scapulothoracic
  - Glenohumeral
Anatomy of the Shoulder

- Ligaments
  - Where?
  - What?

- Sternoclavicular
Anatomy of the Shoulder

- Ligaments
  - Where?
  - What?
  - Acromioclavicular
Anatomy of the Shoulder

- Ligaments
  - Where?
  - What?

- Glenohumeral
Anatomy of the Shoulder

- Joint Capsule
  - Loose
  - Unrestricted ROM
  - Reinforced
Anatomy of the Shoulder

- **Articular Cartilage**
  - Covers joint surfaces
  - Deepens glenoid fossa
  - Minimizes loads and stress
Anatomy of the Shoulder

- Glenoid Labrum
  - Dense, fibrous structure
  - Oval
  - Deepens glenoid fossa
  - Stability
Anatomy of the Shoulder

- **Musculature**

- **Motions?**
  - Flexion
  - Extension
  - Abduction
  - Adduction
  - Horizontal Abduction
  - Horizontal Adduction
  - Internal Rotation
  - External Rotation
  - Circumduction

*Stability*
Anatomy of the Shoulder

- **Musculature**
  - Acting on the Humerus
    - Anterior
      - Pectoralis Major
      - Biceps Brachii
      - Coracobrachialis
      - Deltoid
    - Posterior
      - Deltoid
      - Teres Major
      - Latissimus Dorsi
      - Triceps Brachii

Anatomy of the Shoulder

- Musculature
  - Acting on the Scapula
    - Anterior
      - Serratus Anterior
      - Pectoralis Minor
    - Posterior
      - Levator Scapulae
      - Trapezius
      - Rhomboideus Major
      - Rhomboideus Minor

Anatomy of the Shoulder

- Musculature
  - Rotator Cuff
Anatomy of the Shoulder

- Bursae
  - Subacromial
Anatomy of the Shoulder

- Nerve and Blood Supply
  - Brachial plexus
    - C5-T1
  - Subclavian artery
Anatomy of the Shoulder

- Nerve and Blood Supply
Shoulder Dislocations

- **Dislocation vs. Subluxation?**
Shoulder Dislocation

- Fast Facts
  - 50% of ALL dislocations
  - 95% anterior
  - 85% caused by trauma recur
Shoulder Dislocations

- **Mechanism?**
  - **Anterior vs. posterior**
    - Forced abduction, external rotation, extension
    - Forced adduction, internal rotation; FOOSHA
Shoulder Dislocations

- Defects following dislocation?
  - Hill-Sachs
  - SLAP
  - Bankart
Shoulder Dislocations

- Hill-Sachs lesion
  - Posterior lateral aspect
  - Compression
Shoulder Dislocation

- Superior Labrum Anteroposterior Lesion (SLAP)
  - 10 to 2
  - Affects biceps
Shoulder Dislocations

- Bankart Lesion
  - Arthroscopic vs. open
  - Anterior labrum
Shoulder Dislocations

- **Chronic Instability** — Increasing laxity due to repeat incidents, trauma, genetics, or neuromuscular deficits

- **Signs and Symptoms**
  - Sport
  - Clicking
  - Pain
  - Weakness
Shoulder Dislocations

- Chronic Instability

  - Signs and Symptoms
    - Laxity – Drawer tests
    - Apprehension
    - Job Relocation
    - Sulcus
Shoulder Dislocations

- Chronic Instability
  - Management
    - Conservative vs. surgical
Case Study

- 19 year-old male, collegiate catcher
- No previous history
- June 14\textsuperscript{th}, 2004
- Left shoulder dislocation
- Mechanism
  - Summer ball – Dove awkwardly back to 1\textsuperscript{st} base
  - Reduced
- Immobilizer
- Contacted ATC
  - Second opinion
Case Study

- June 17th, 2004
- Seen by Dr. Theut – Orthopaedic Associates of GR
  - Irritable
  - Limited ROM
  - X-ray (-)
- Surgery vs. therapy
  - Abduction **sling**
Case Study

- February 7th, 2005
- Repeat left shoulder dislocation
  - Mechanism
    - Tarps following practice
    - “Slipped out” & “felt like it went out towards the bottom”
  - Reduced
- Examination
  - Limited ROM
  - Slight swelling
  - (+) Apprehension, Job Relocation, Sulcus, Anterior Load and Shift
Case Study

- April 2\textsuperscript{nd}, 2005
- Repeat left shoulder dislocation
- Mechanism
  - High inside fastball
- Reduced
- Surgery

* Number of occurrences
Case Study

- April 14th, 2005
- Dr. Theut
- Examination
  - Good ROM
  - (+) Apprehension and Job relocation
  - No gross instability
  - Good strength
  - No evidence of multidirectional instability
- MRI
- Surgical plan
  - Arthroscopic with open option
Case Study

- August 16\textsuperscript{th}, 2005
- Arthroscopic Bankart Repair
  - Left shoulder instability
  - Tear of anterior inferior and superior labrum
- \url{http://www.drstoller.com/education_bankart.htm}
Case Study

- Rehabilitation Sheet – August 31st, 2005

- Goals
  - Normal, pain free ROM
  - Normal strength
  - Normal arthrokinematics and proprioception
  - Pain free ADL
  - Return to full activity

Bankart Repair 8/16/05

Date: ________
Pain Scale: 0 1 2 3 4 5 6 7 8 9 10

Goniometry:

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<th></th>
<th>Today</th>
<th>Normal</th>
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<tr>
<td>Flexion</td>
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<td>180</td>
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<tr>
<td>Extension</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>Abduction</td>
<td></td>
<td>180</td>
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<tr>
<td>Internal Rotation</td>
<td></td>
<td>90</td>
</tr>
<tr>
<td>External Rotation</td>
<td></td>
<td>90</td>
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</tbody>
</table>

Exercises:

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

Comments:
Case Study

- Rehabilitation Protocol

  - Days 1&2
    - Immobilization
    - Pendulum
    - Avoid ext. rot.
    - Isometrics to distal joints
    - Modalities
    - Cardio

  - Weeks 1-6
    - Sling while up
    - PROM
    - Scapular strength
    - Isometrics
    - Modalities
    - Cardio
Case Study

- Rehab Protocol Continued

- Weeks 6-12
  - AROM & PROM
  - Dynamic strengthening
  - RROM
  - Cardio

- Weeks 12-24
  - Increase strength
  - Isokinetic testing
  - Sport specific
  - Return to sport
Case Study

- Athlete
  - Cooperative
  - Motivated
  - Enthusiastic
  - Did not miss

- Obstacles?
Case Study

- Returned to play December 12th, 2005
  - Lifting, overhead activities (bench & military)

- Goals
  - Pre season
  - “Play the whole season without getting hurt”
  - “Win MIAA”
Rehab Pick List

What is it?
Rehab Pick List

- Why should we use/develop rehab pick lists?
  - Way to organize
  - Way to remember
  - Specific to your institution
  - More interesting for athlete
  - Simple, fast, and effective way to make daily rehab programs
In Review:

- Anatomy of the Shoulder
- Shoulder Dislocations
- Case Study
- Rehabilitation Pick List
Who has the first question?
You don’t want *this* to be YOUR athlete …
Shoulder dislocations WILL happen

By knowing the anatomy, being familiar with these types of injuries, and developing pick lists for your rehabilitation programs you will quickly and effectively return your athletes to the games they love.
References

