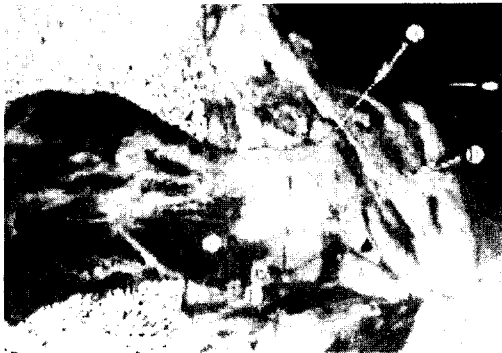


## Partial Tear of Upper Portion of the Subscapularis

조선대 병원 정형외과학교실

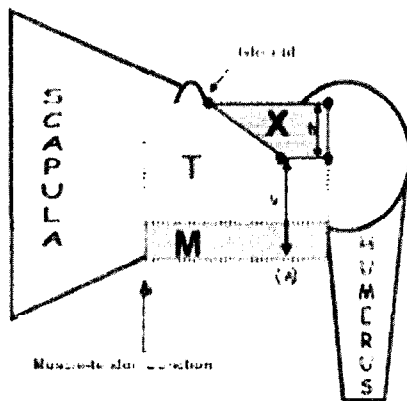
문 영 래

### Subscapularis



#### ■ Anatomy

- Origin: Anterior scapula medial 2/3
- Insertion: Lesser tuberosity.
- Tendinous portion: 2.5 cm length



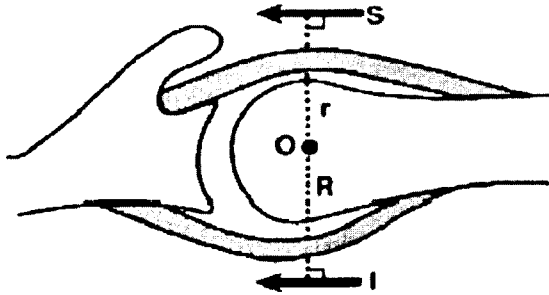
#### ■ Motion

- Internal rotator of glenohumeral joint<sup>1</sup>

#### ■ Function

- Prevent extreme external rotation, downward displacement of humeral head and joint compression

- Balancing transverse plane force couple<sup>2-9</sup>



## Subscapularis Tear

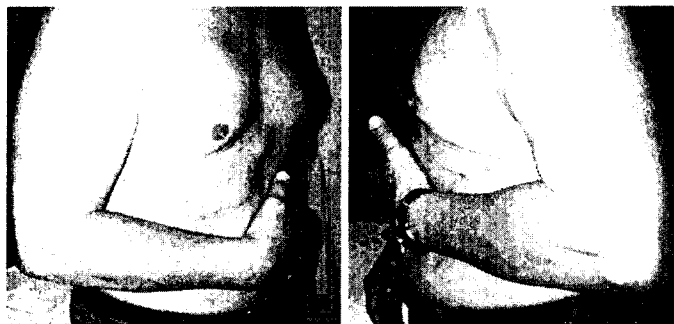
### Etiology

- History of Trauma
  - Majority
- Mechanism of injury
  - Arm in Abducted and Forced External Rotation
  - Repetitive microtrauma<sup>10</sup>
- Isolated Tear
  - Rare<sup>11-17</sup>

### Evaluation

- Pre-op Physical Signs (Napoleon , Lift-off)
- Pre-op X-ray & MRI
- Operative Findings
  - Pre-op Physical Signs
    1. Belly-Press test
    2. Napoleon sign
    3. Lift off test

1. Belly-press test



2. Napoleon sign



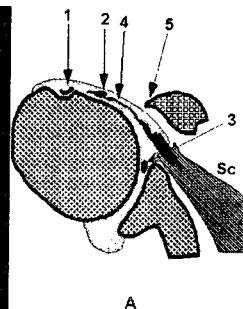
- Variant of Belly-Press
- Grade of Napoleon
  - A. Positive
  - B. Negative
  - C. Slight

3. Lift off test



- Pre-op X-ray
  - True AP, Axillary lateral, scapular lateral views
  - Anterior subluxation of the humeral head<sup>18</sup>
  - Humeral Head Proximal Migration

■ MRI

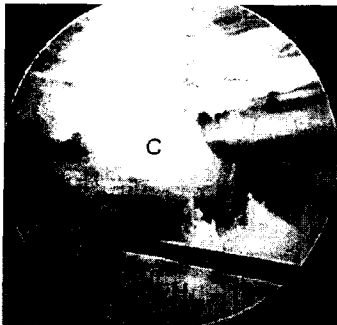


- Most sensitive
- Detect
  - Amount of fatty infiltration and atrophy of subscapularis
  - Biceps tendon condition
- Misdiagnosis
  - Not uncommon<sup>19</sup>
- Gadolinium with MRI& MR arthrogram
  - Improve diagnostic accuracy<sup>20,21</sup>

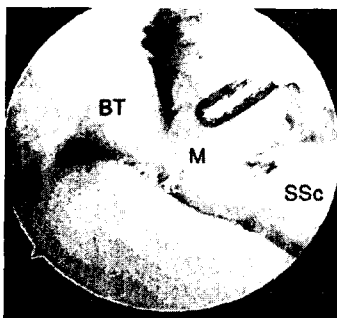
■ Arthroscopic Findings



■ Prominent coracoid – coracoid impingement



■ Associated Pathology



- Torn Biceps
- Dislocated Biceps
- SLAP
- Bankart and Hill-Sachs lesion

■ Treatment

1. Debridement
2. Side to side repair
3. Anchor repair

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