Reviewing the chapter provides some information about the disorders of the tendon of the long head of the biceps muscle (LHB) and the origin of the LHB.

IV/8.1.: Definition

The tendon of the long head of the biceps originates from the supraglenoid tuberosity, crosses the intraarticular space superiorly and enters into to bicipital groove on the anterior surface of the humerus. The tendon is involved in shoulder diseases quite often because of its intraarticular position and specially localized origin at the top of the glenoid. Most commonly inflammation, fraying or rupture of the tendon is responsible for the pain. Pathology of the origin of the tendon is named SLAP lesion (Superior Labral AnteroPosterior lesion).

IV/8.2.: Epidemiology

SLAP lesion can occur as an acute injury affecting most commonly over-head athletes (tennis, volley ball, basket ball, etc.), or it can occur as a chronic disease. Tendinitis, inflammation or fraying is usually seen in middle-aged patients. Chronic degenerative changes can damage the LHB so much, that it may result in spontaneous rupture of the tendon.

1. Figure 1.: Rupture of the tendon of the long head of the biceps muscle results in the contracture of the muscle belly altering thus the outlook of the upper arm. This cosmetic deformity is called Popeye-sign.

IV/8.3.: Etiology

Tendinitis of the biceps tendon usually develops due to injury or overuse. In consequence of its intraarticular localization most of the shoulder diseases (impingement syndrome, rotator cuff tear, instability, osteoarthritis, etc.) can cause secondary biceps tendinitis.

IV/8.4.: Presentation

Patients usually complain of anterior shoulder pain and tenderness over
the anterior aspect of the joint. Pain frequently radiates towards the upper arm.

**IV./8.5.: Workup**

Resisted flexion at 60-90 degrees of the externally rotated (i.e. supinated forearm) straight arm provokes pain over the sulcus of the biceps tendon (Palm up or Speeds’ test). Holding the arm aside the trunk, resisted flexion of the extended elbow can cause pain on the same spot. On conventional x-ray special signs are rarely seen. Ultrasound and MR examination can prove tendinitis of the long head of the biceps. SLAP lesion can be observed on MR arthrography.

**IV./8.6.: Diagnosis**

Imaging studies can assure the diagnosis, which is generally based on a careful physical examination.

**IV./8.6.1.: Differential diagnosis**

Impingement syndrome, calcifying tendinitis, rotator cuff tear, cervical disc herniation.

**IV./8.7.: Treatment**

- **Conservative therapy:** NSAIDs orally or locally, physiotherapy. Biceps tendon rupture occurring in elderly generally doesn't require special treatment.

- **Surgical therapy:** If conservative therapy fails, arthroscopic debridement of the tendon is required. If functionally the tendon is severely deteriorated, tenotomy is advised. In the elderly, no further care should be administered, while in younger patients tenodesis can be performed. In case of a SLAP lesion debridement or reinsertion is the method of choice.

**References**

*Obligatory:*

- Szendrői Miklós: Orthopedics 25.5. chapter

*Optional:*