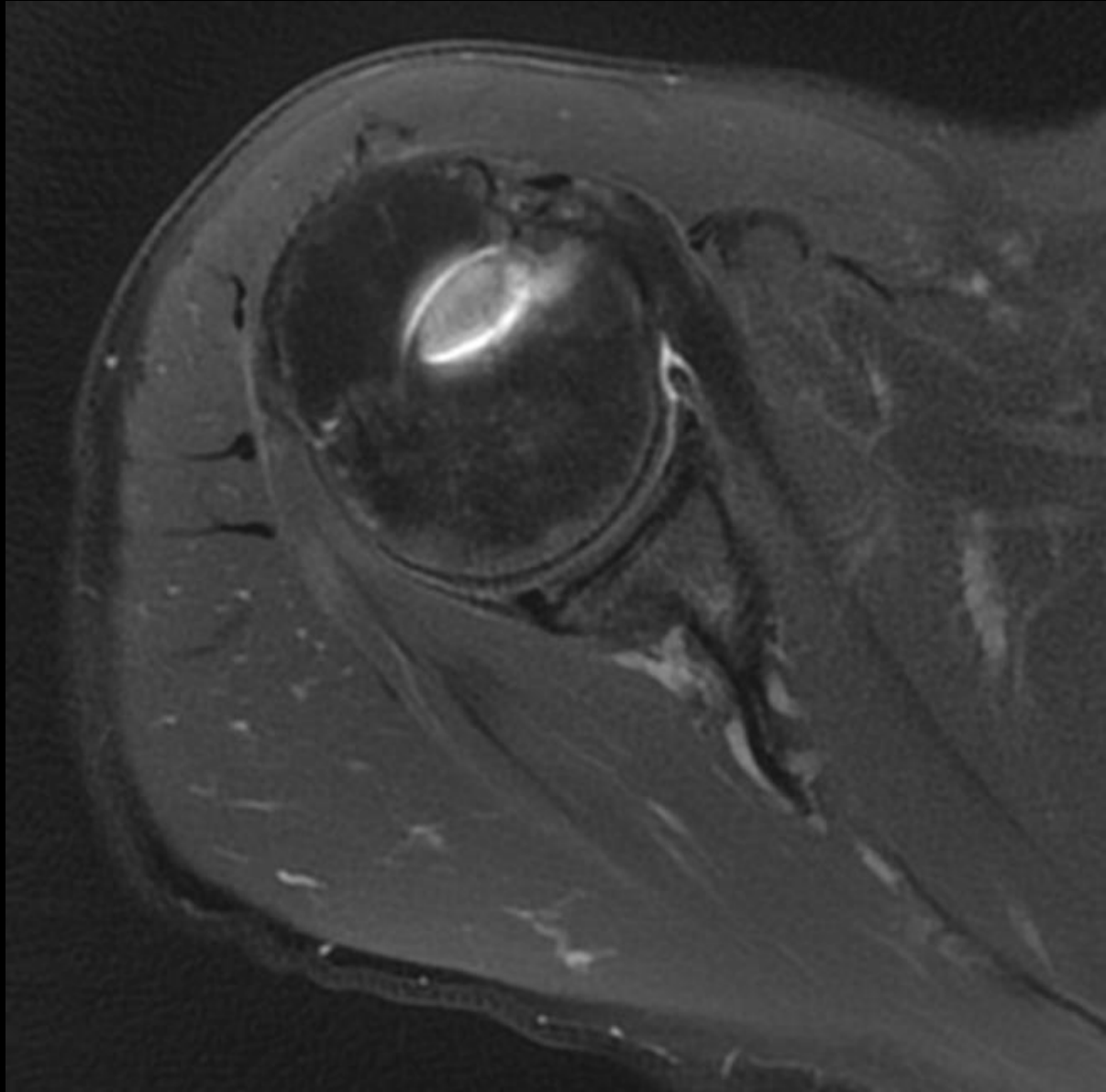
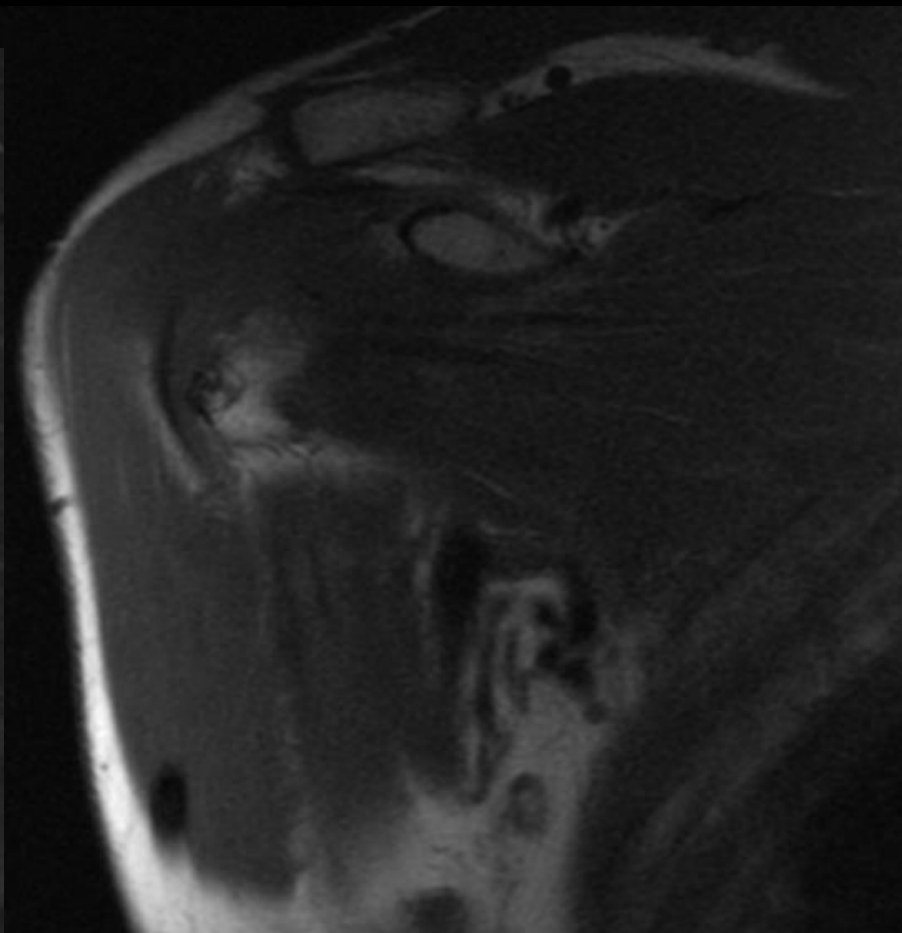
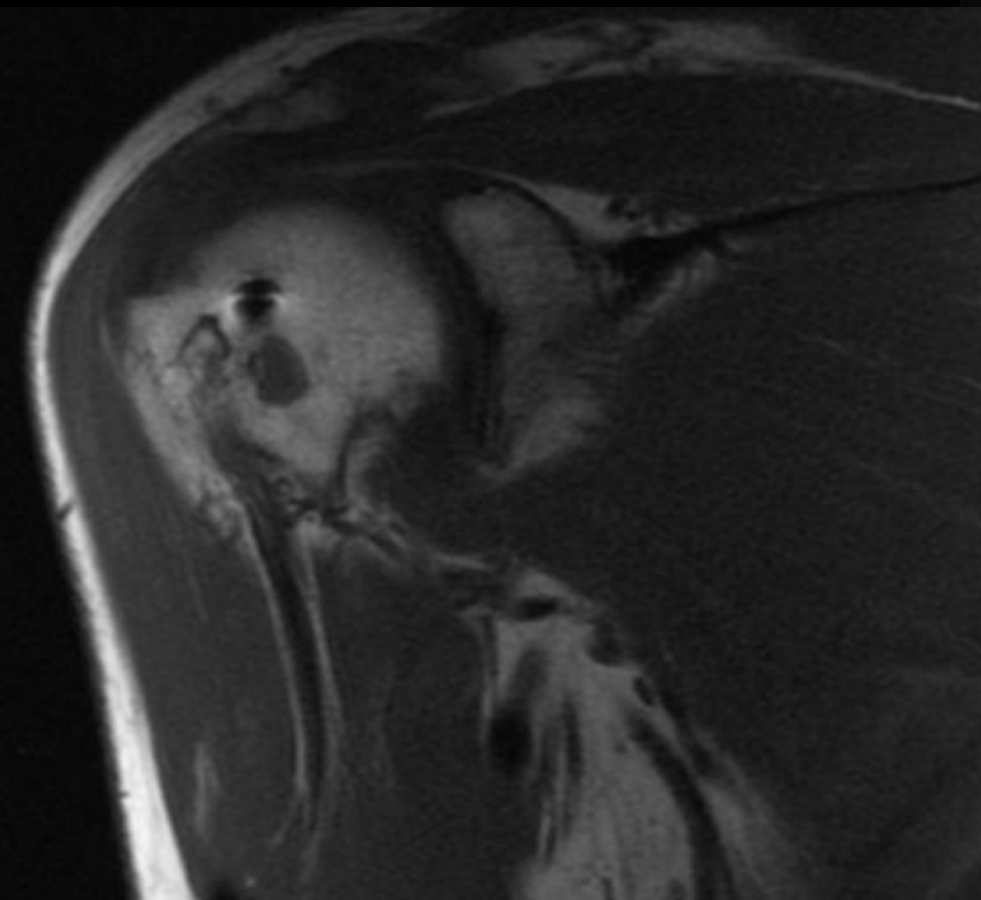




53 yo F with right shoulder pain x7  
months after fall.  
MRN: 29112743

Ashley Burt





Aponeurotic  
expansion of  
supraspinatus tendon

Skeletal Radiol. 2015 Feb;44(2):223-31. doi: 10.1007/s00256-014-1993-4. Epub 2014 Sep 2.

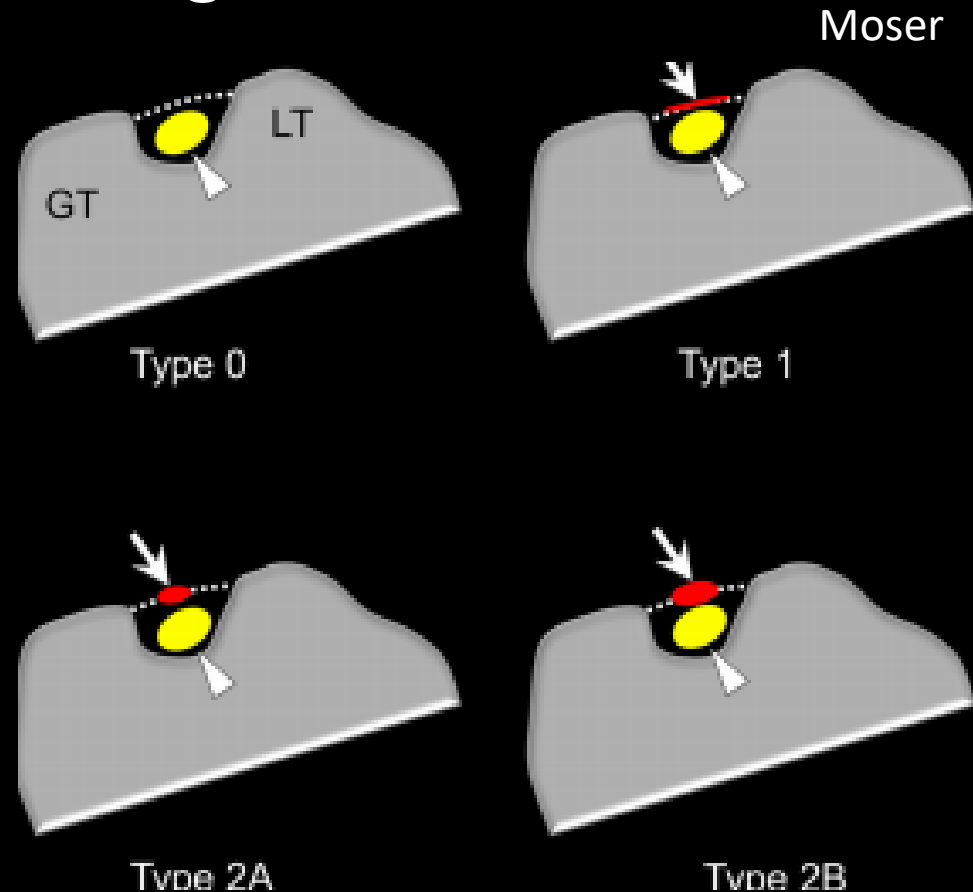
## **The aponeurotic expansion of the supraspinatus tendon: anatomy and prevalence in a series of 150 shoulder MRIs.**

Moser TP<sup>1</sup>, Cardinal É, Bureau NJ, Guillin R, Lanneville P, Grabs D.

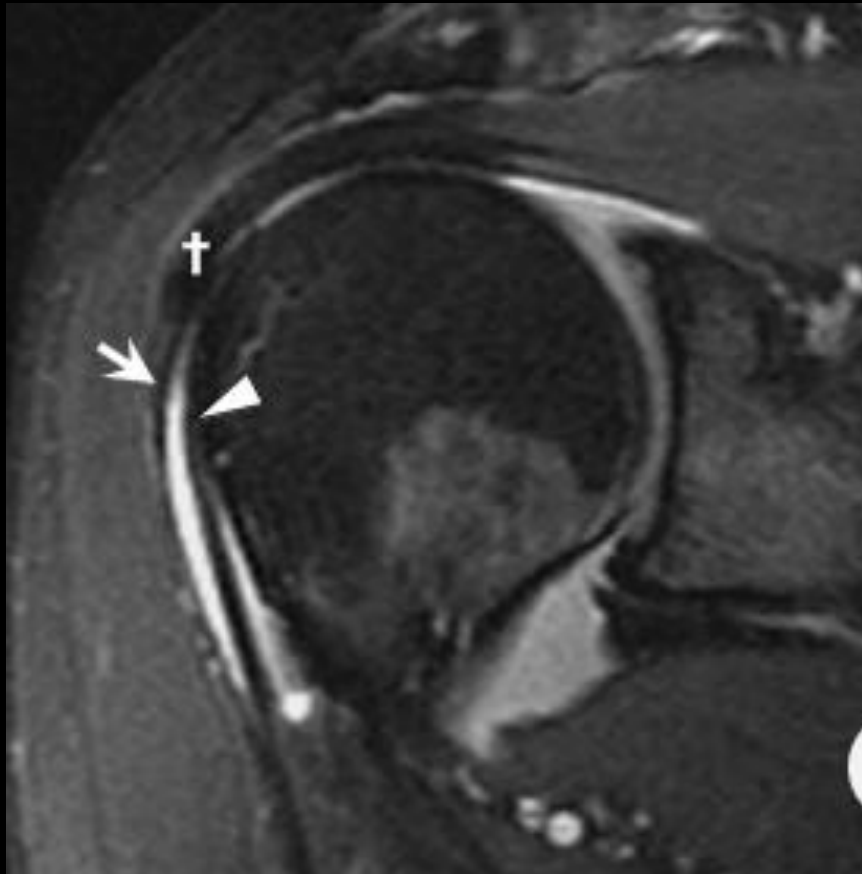
- Retrospectively reviewed 150 consecutive MRIs (1.5-T system)
- Characterized appearance
- 25 cadavers with ultrasound
  - If aponeurotic expansion is seen -> dissection

# Aponeurotic expansion of the supraspinatus tendon

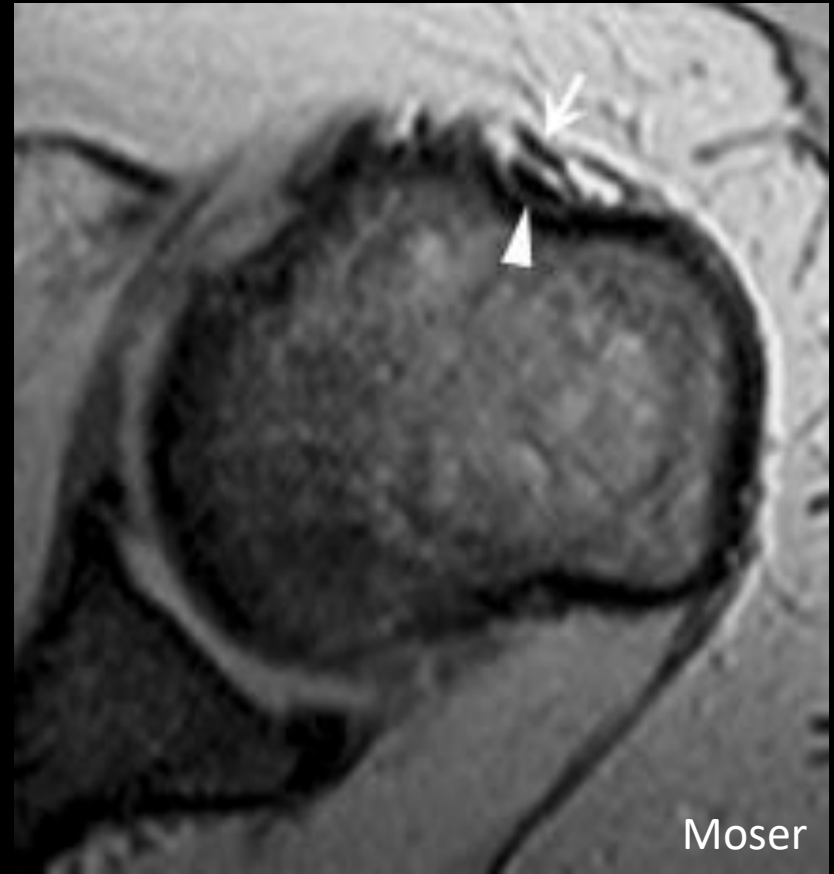
- Anterior & lateral to LHB in groove
- 49% of reviewed MRIs
  - Type 0: absence
    - 35%
  - Type I: thin flat
    - 35%
  - Type 2A: Oval <50%
    - 10%
  - Type 2B: Oval >50%
    - 4%



Type 2A

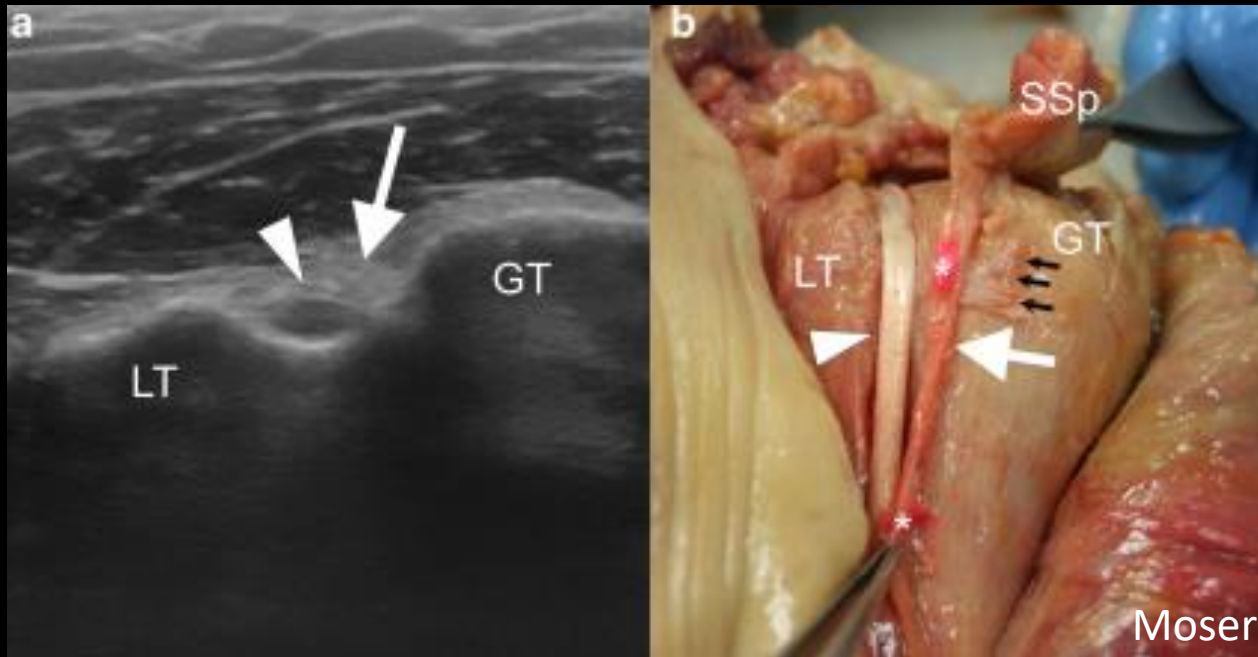


Type 2B



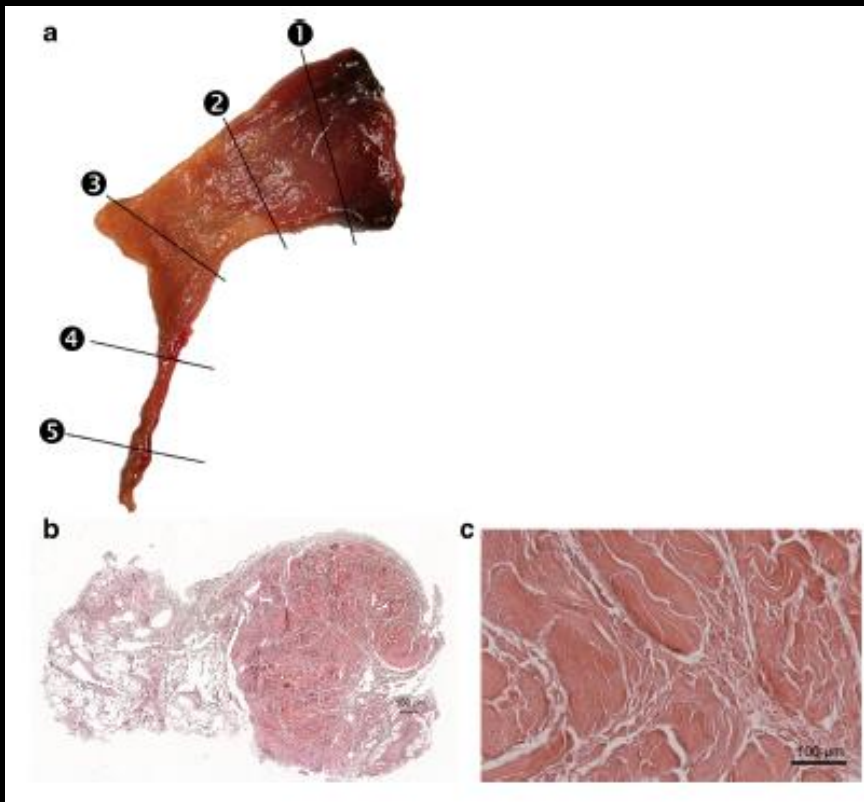
# Cadaver Evaluation

- Seen on US: 28/50 shoulders
- Present at dissection: 20 shoulders
- Originate anterior, superficial supraspinatus tendon -> insert pectoralis major tendon





# Aponeurotic expansion of the supraspinatus tendon

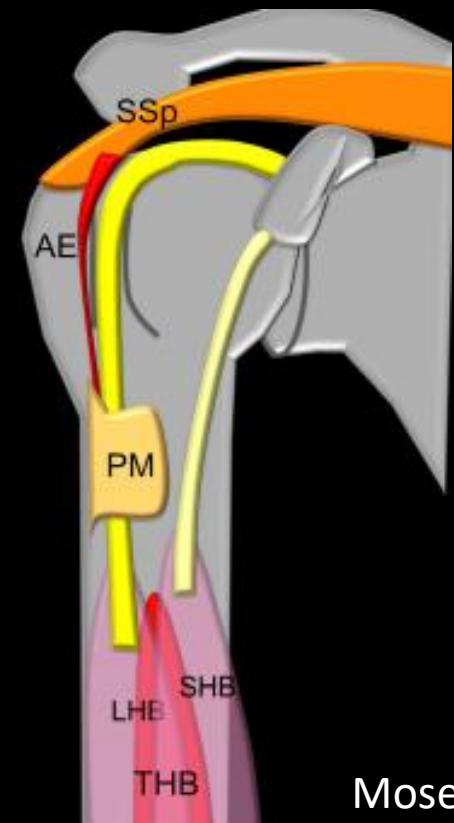


Organized collagen fascicles

Moser

# Aponeurotic expansion of the supraspinatus tendon

- No gender predominance
- Bilateral ~79%
- Concurrent abnormal biceps 32%
  - Partial tear 56%
  - Complete tear 22%
  - Medial dislocation 22%
- Mimics split tear



Moser

# Aponeurotic expansion of the supraspinatus tendon

- Previously described by Brody (1890) and Clark & Harryman (1992)
- Gheno et al: accessory biceps tendon
- Dierickx et al: intra-articular biceps tendon

# References

1. Gheno R, Zoner CS, Buck FM, et al. Accessory head of biceps brachii muscle: anatomy, histology, and MRI in cadavers. *AJR Am J Roentgenol*. 2010;194(1):W80–3.
2. Brodie CG. Note on the transverse-humeral, coraco-acromial, and coraco-humeral ligaments, &c. *J Anat Physiol*. 1890;24(Pt 2):247–52.
3. Clark JM, Harryman 2nd DT. Tendons, ligaments, and capsule of the rotator cuff. Gross and microscopic anatomy. *J Bone Joint Surg Am*. 1992;74(5):713–25.
4. Rodriguez-Niedenfuhr M, Vazquez T, Choi D, Parkin I, Sanudo JR. Supernumerary humeral heads of the biceps brachii muscle revisited. *Clin Anat*. 2003;16(3):197–203.
5. Dierickx C, Ceccarelli E, Conti M, Vanlommel J, Castagna A. Variations of the intra-articular portion of the long head of the biceps tendon: a classification of embryologically explained variations. *J Shoulder Elb Surg*. 2009;18(4):556–65.