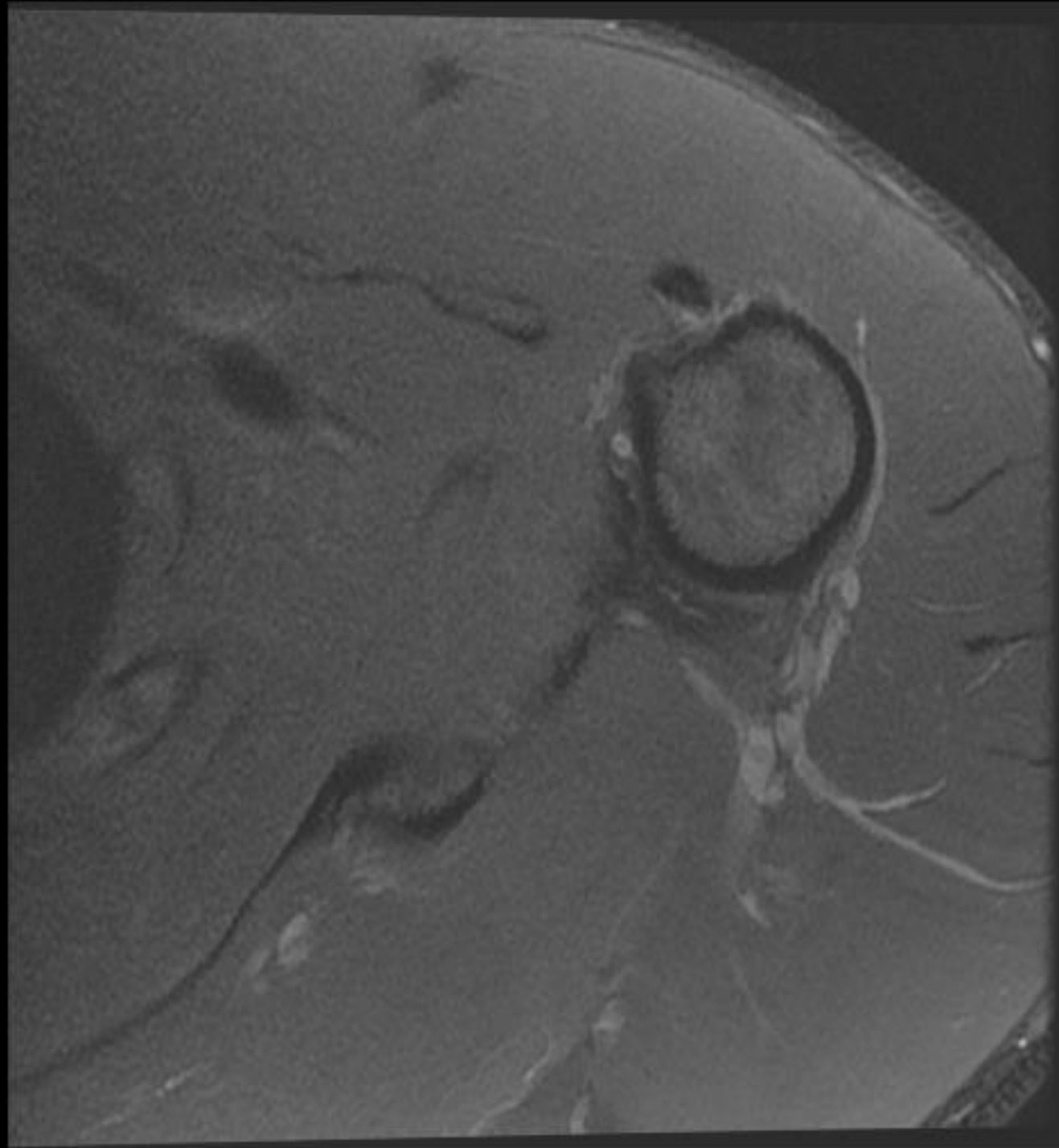


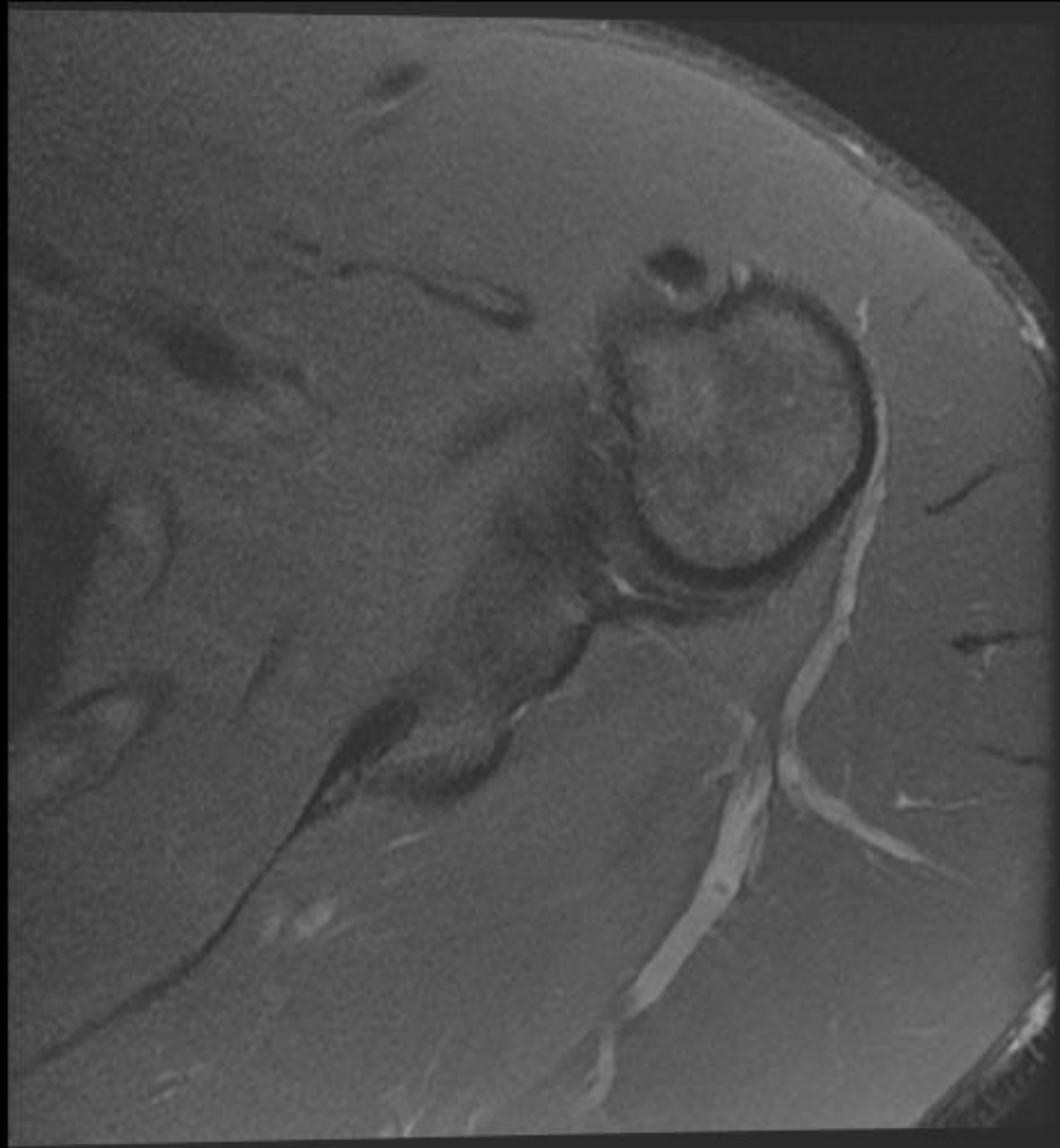


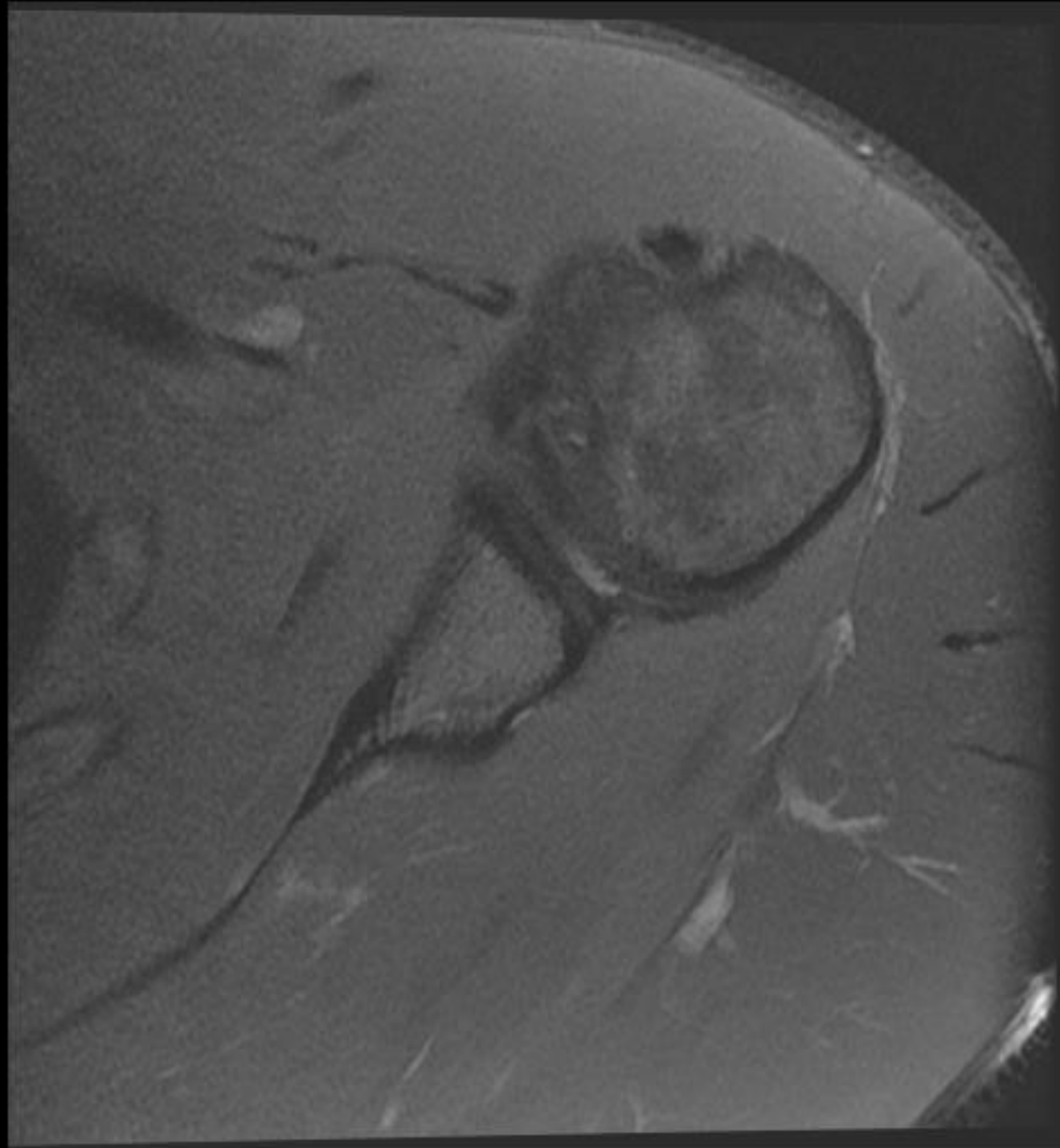
Young Adult Male with Left Shoulder Pain

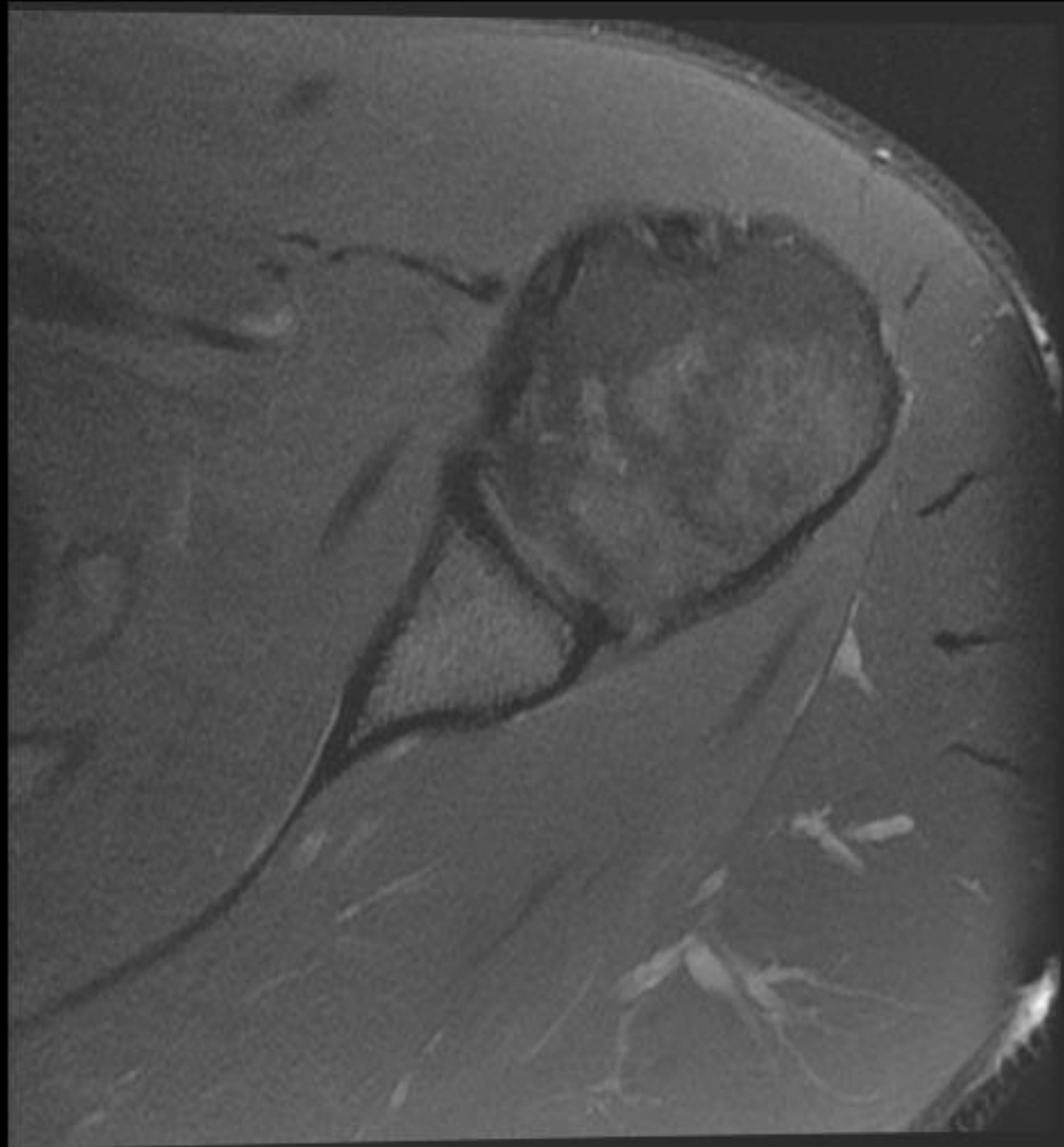
William Millard

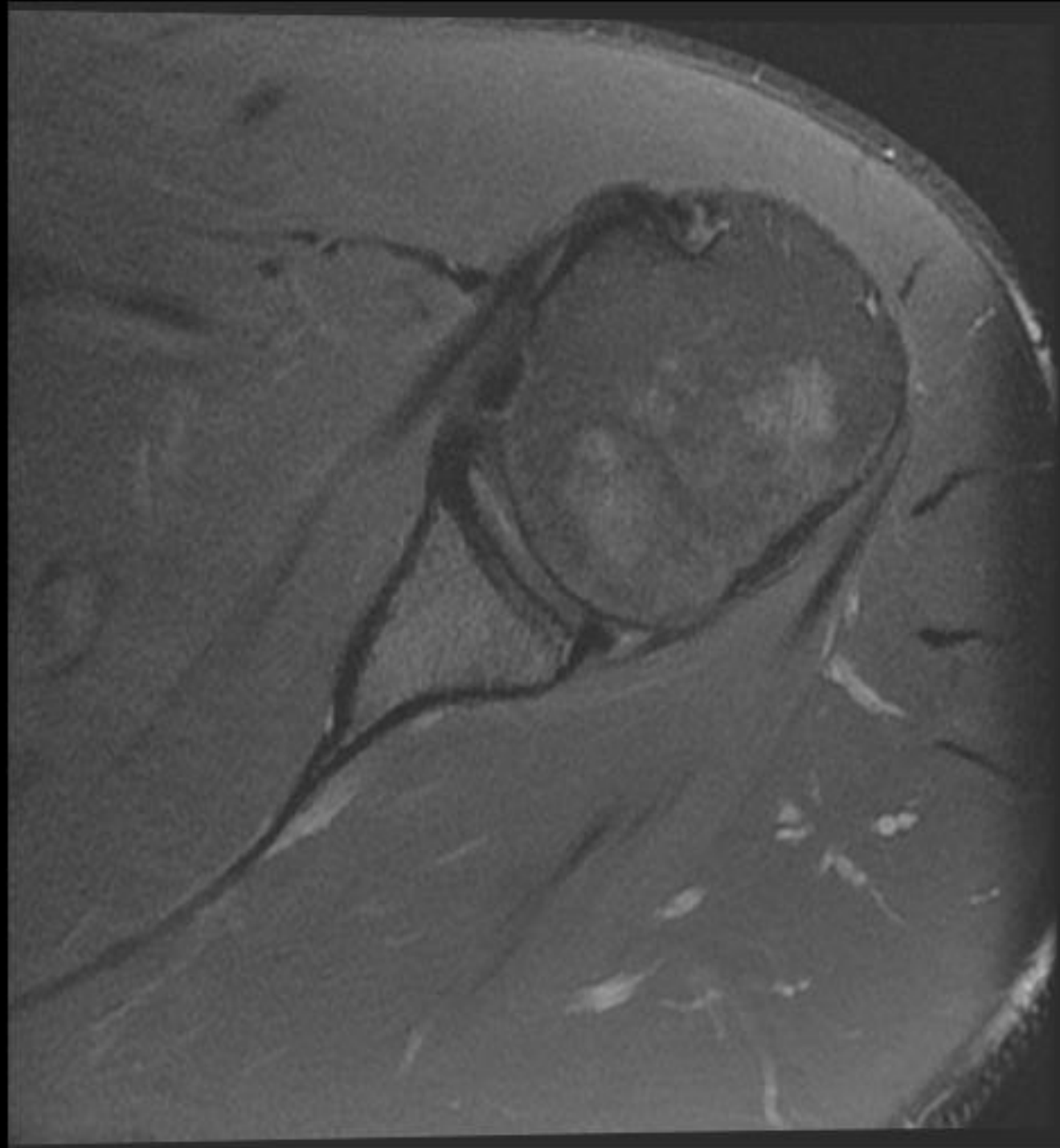
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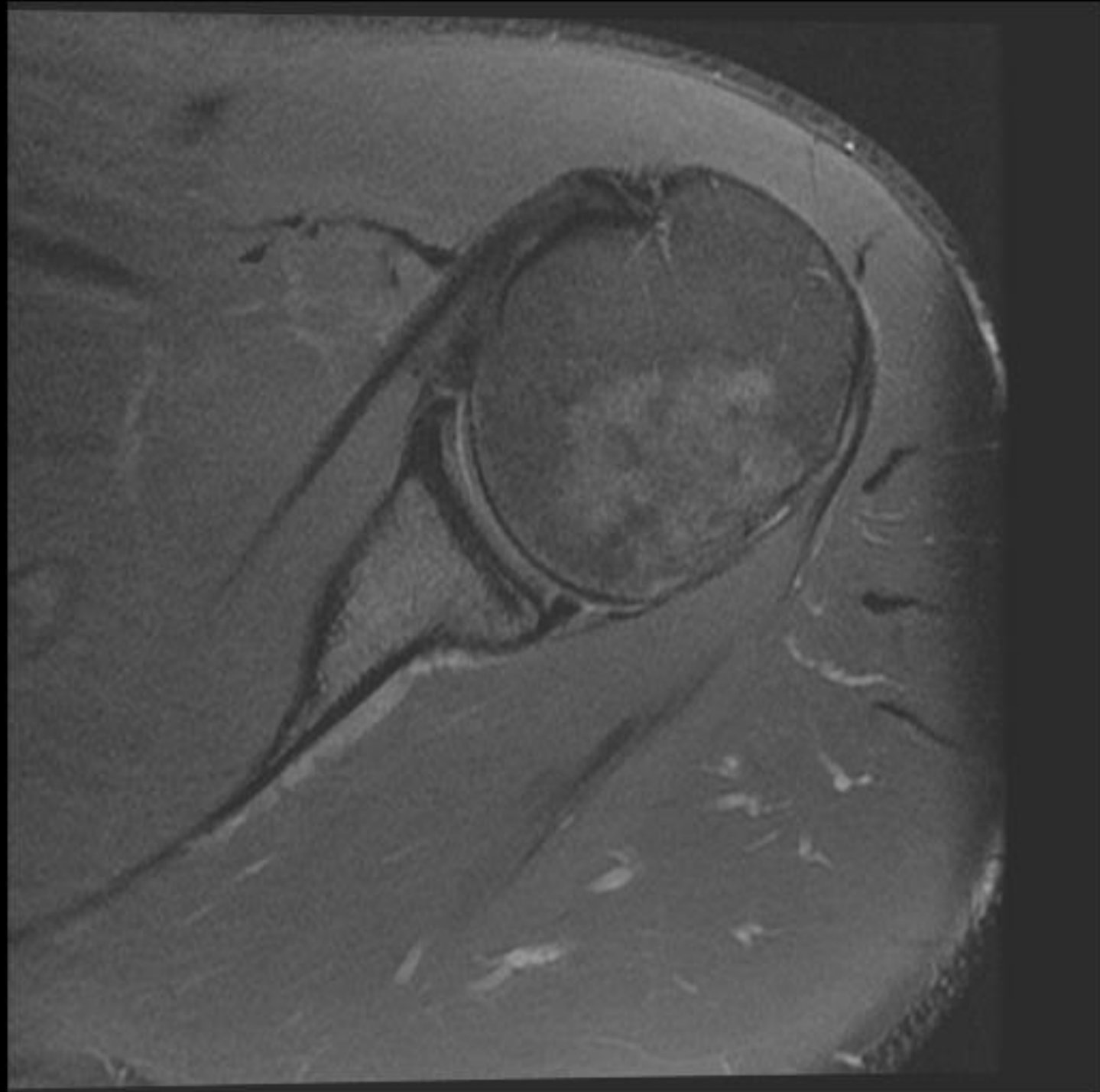


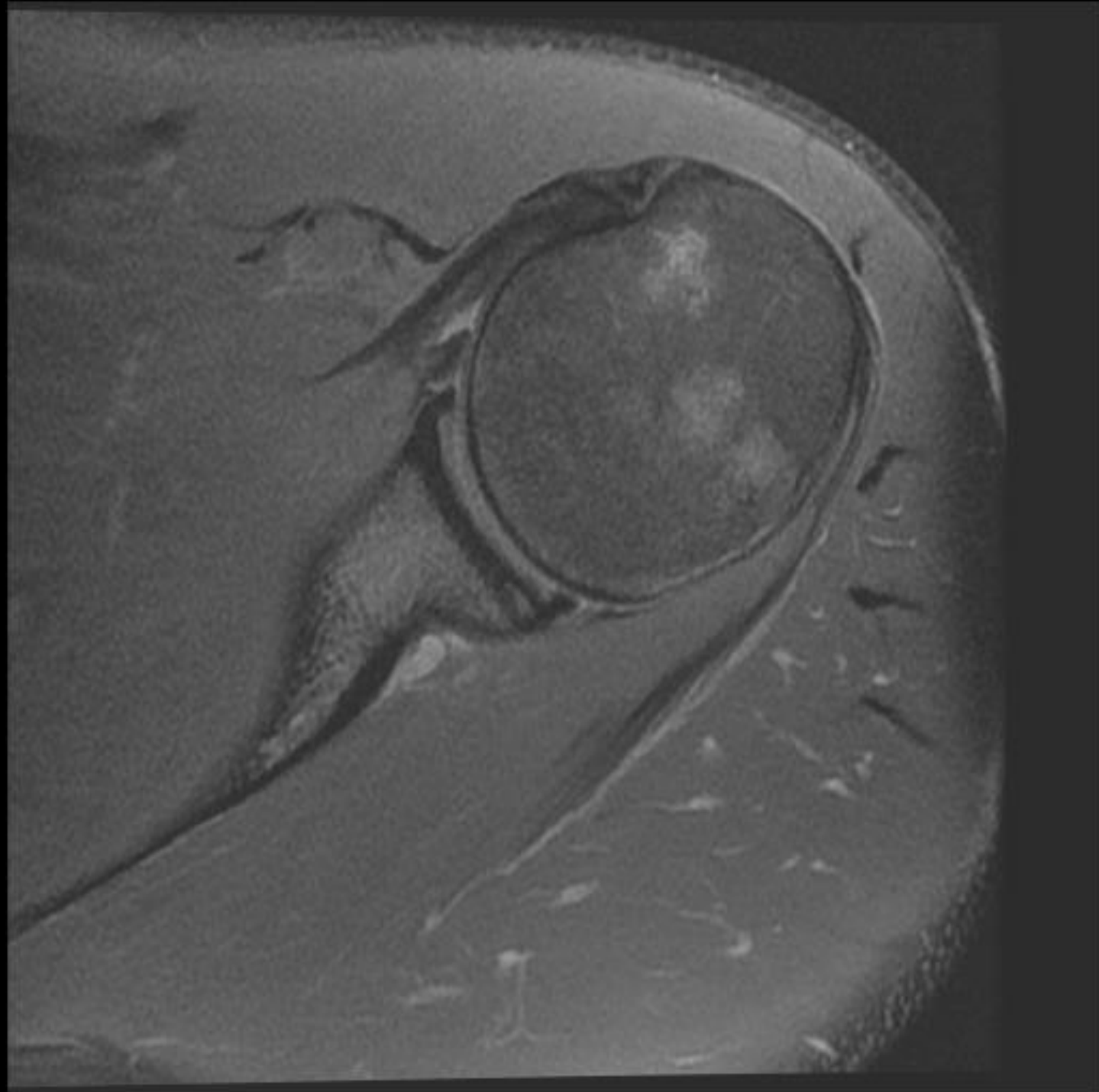


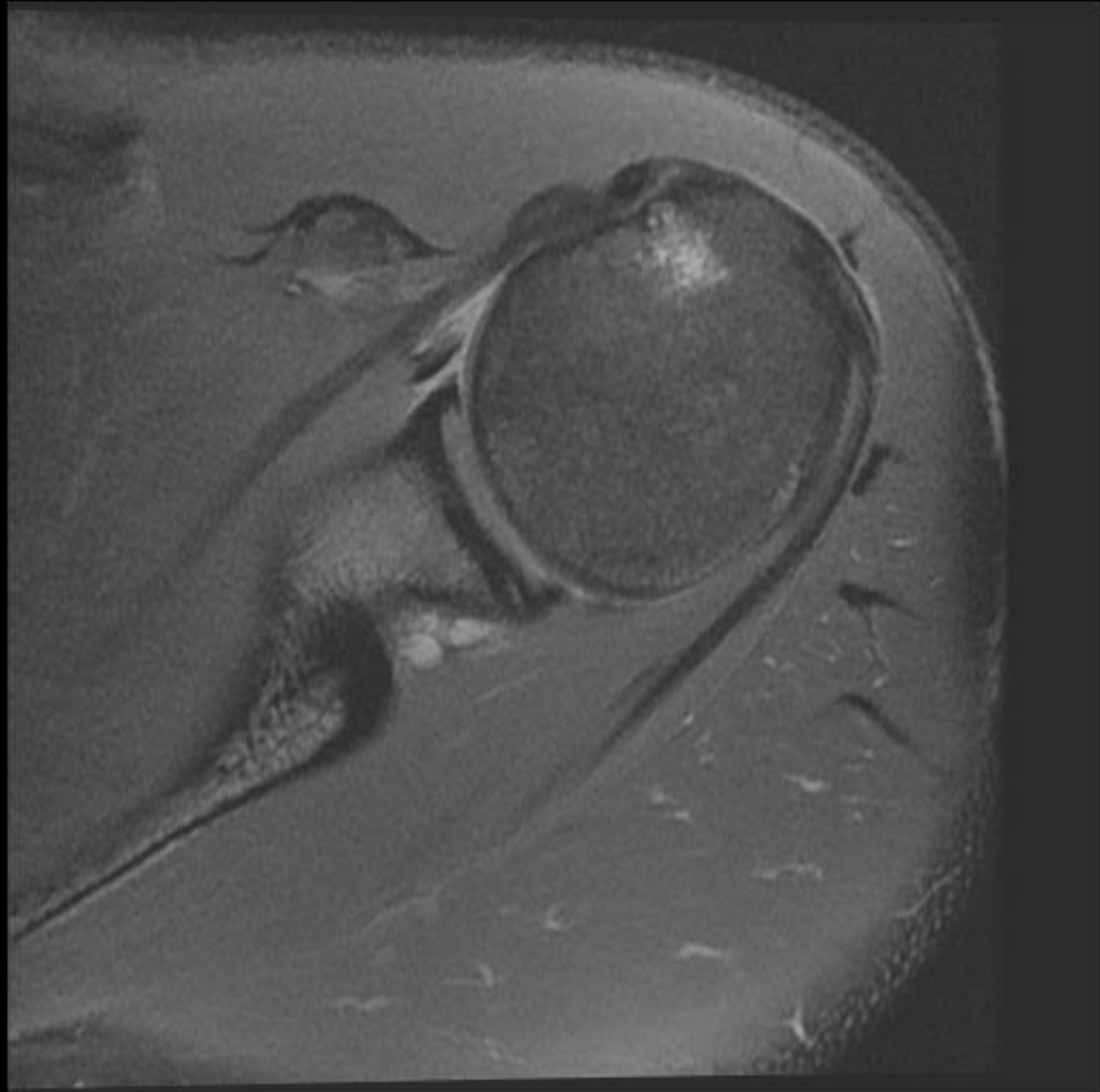


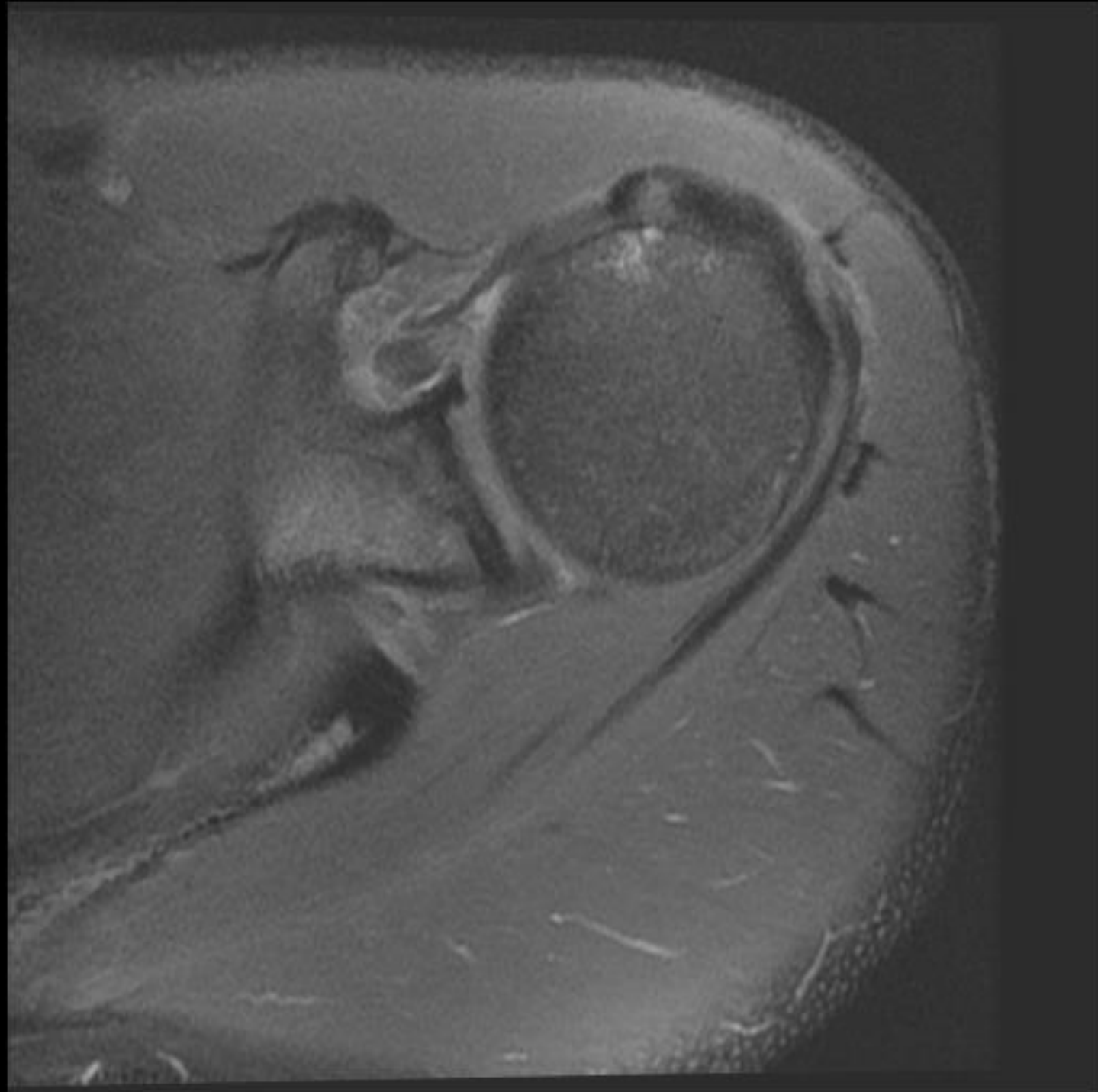


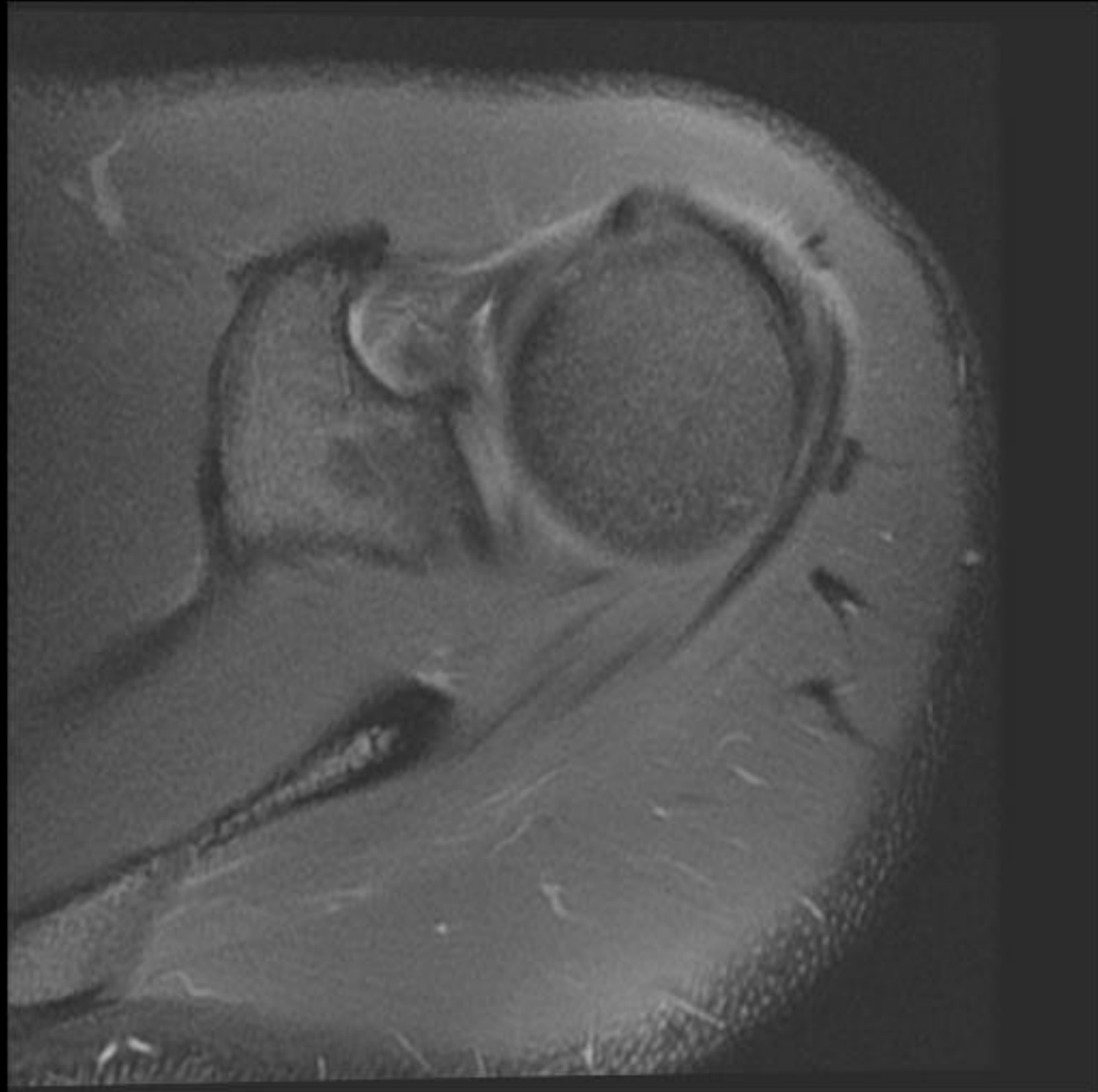


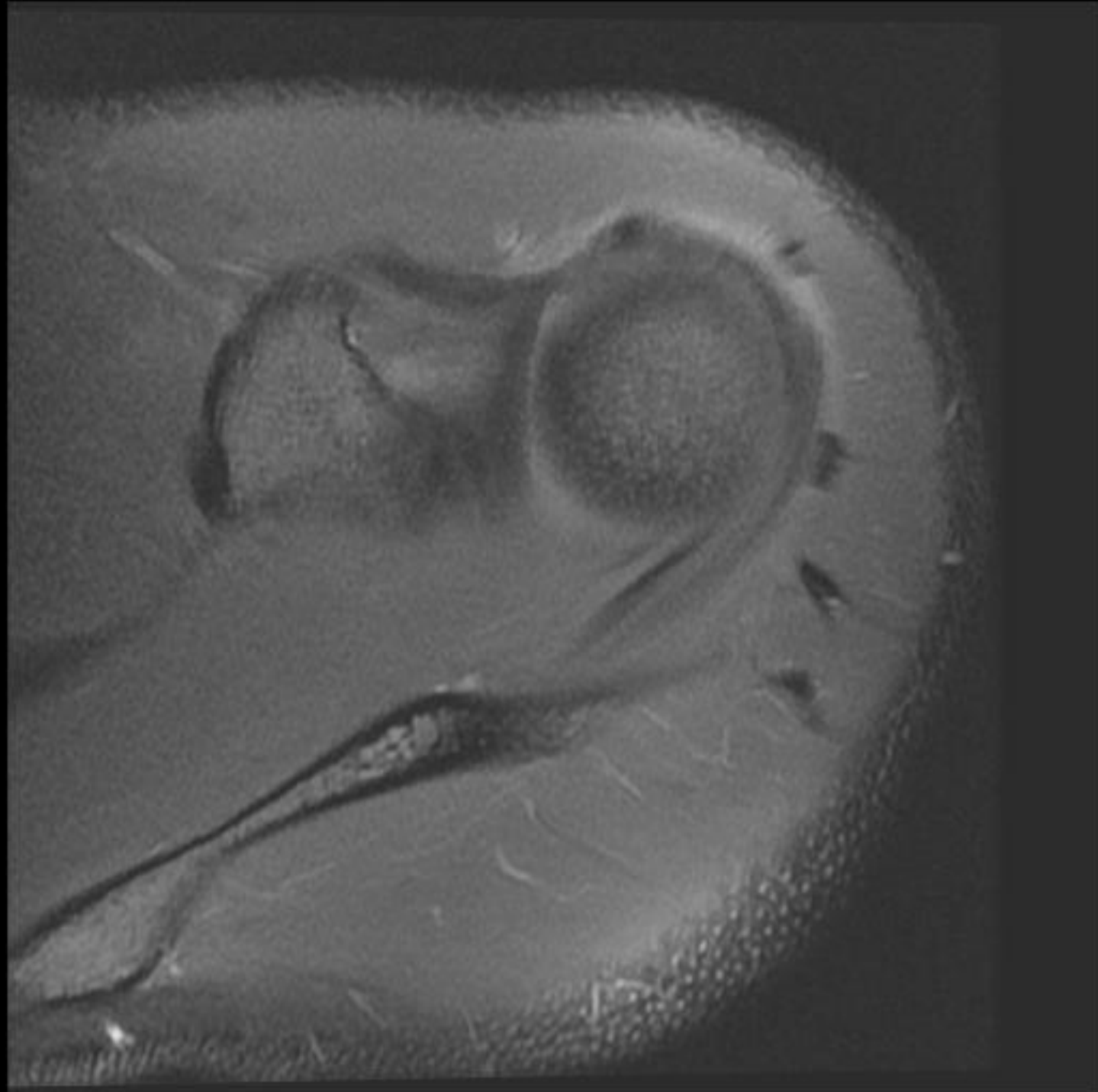


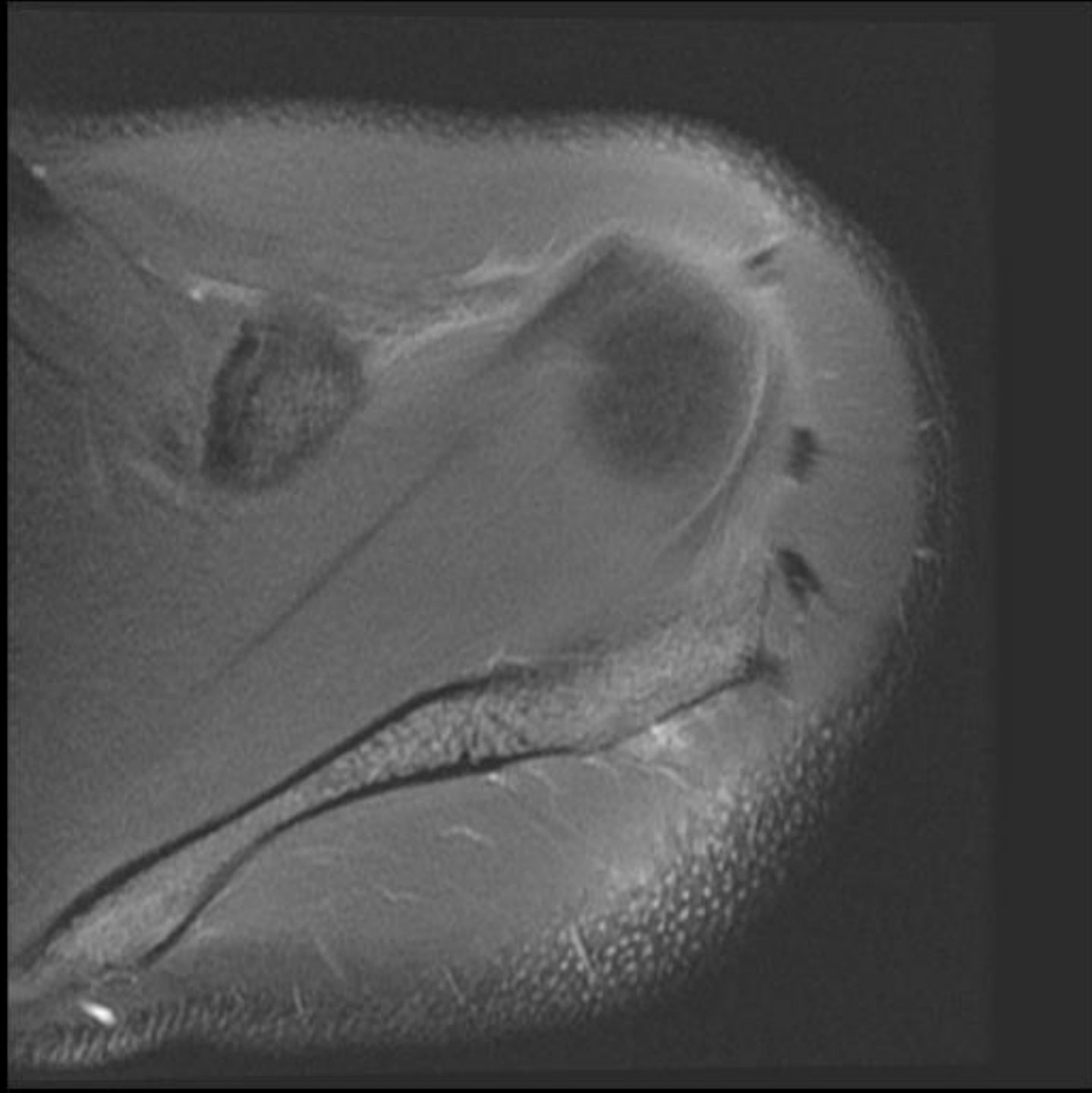


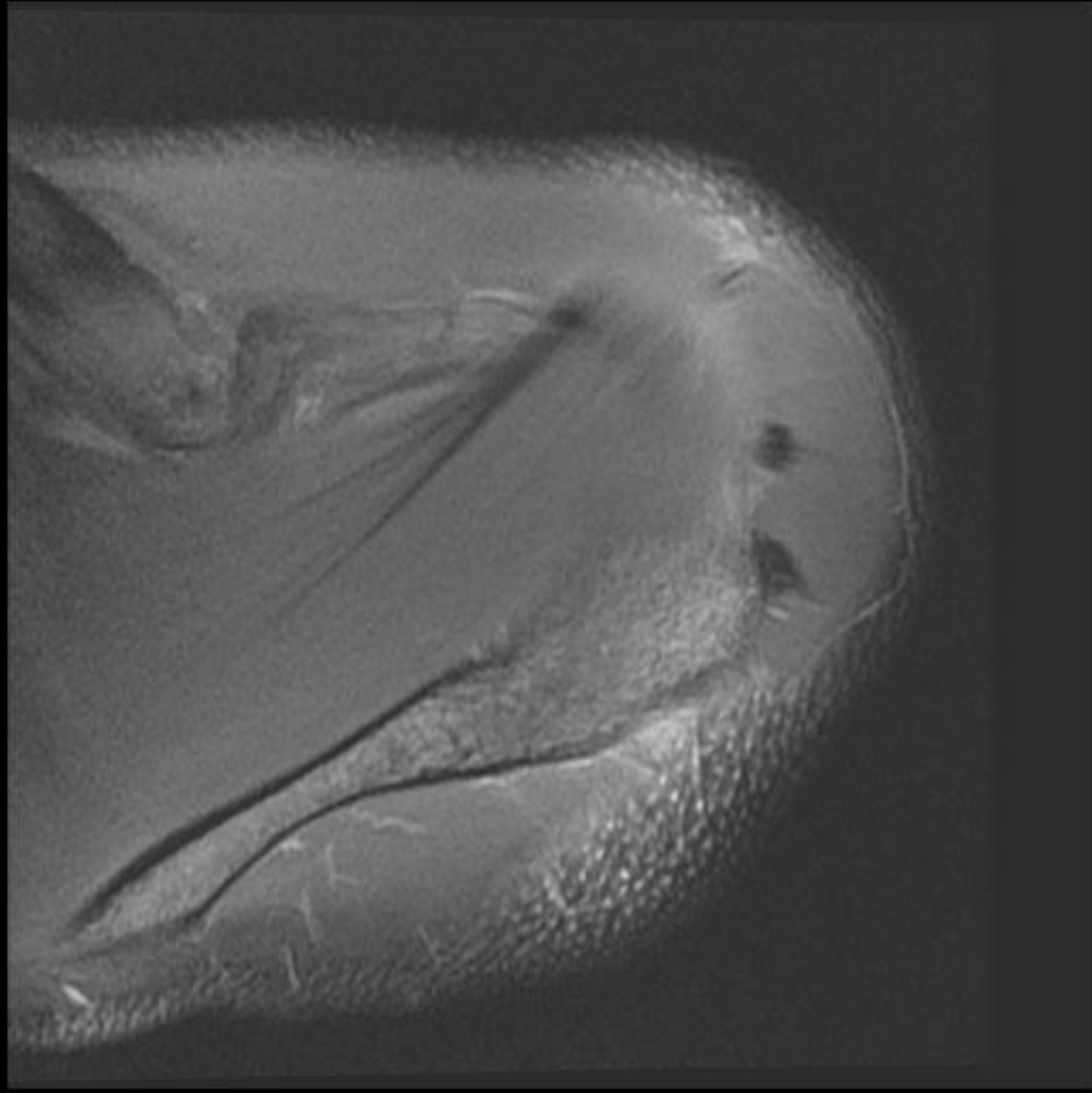










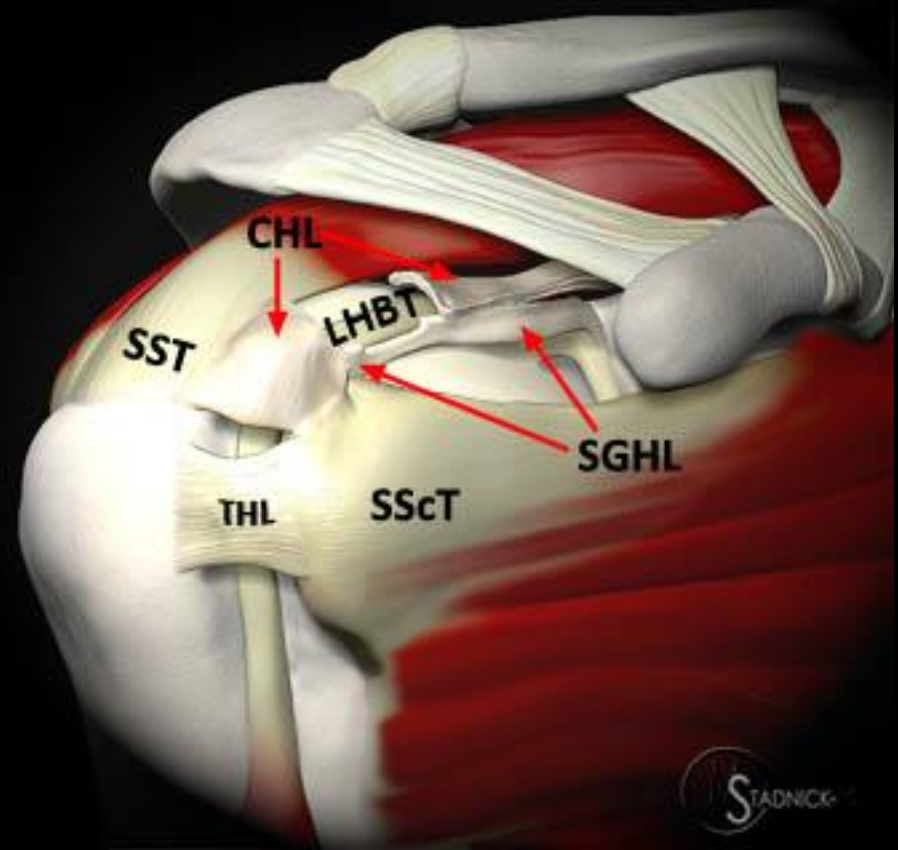


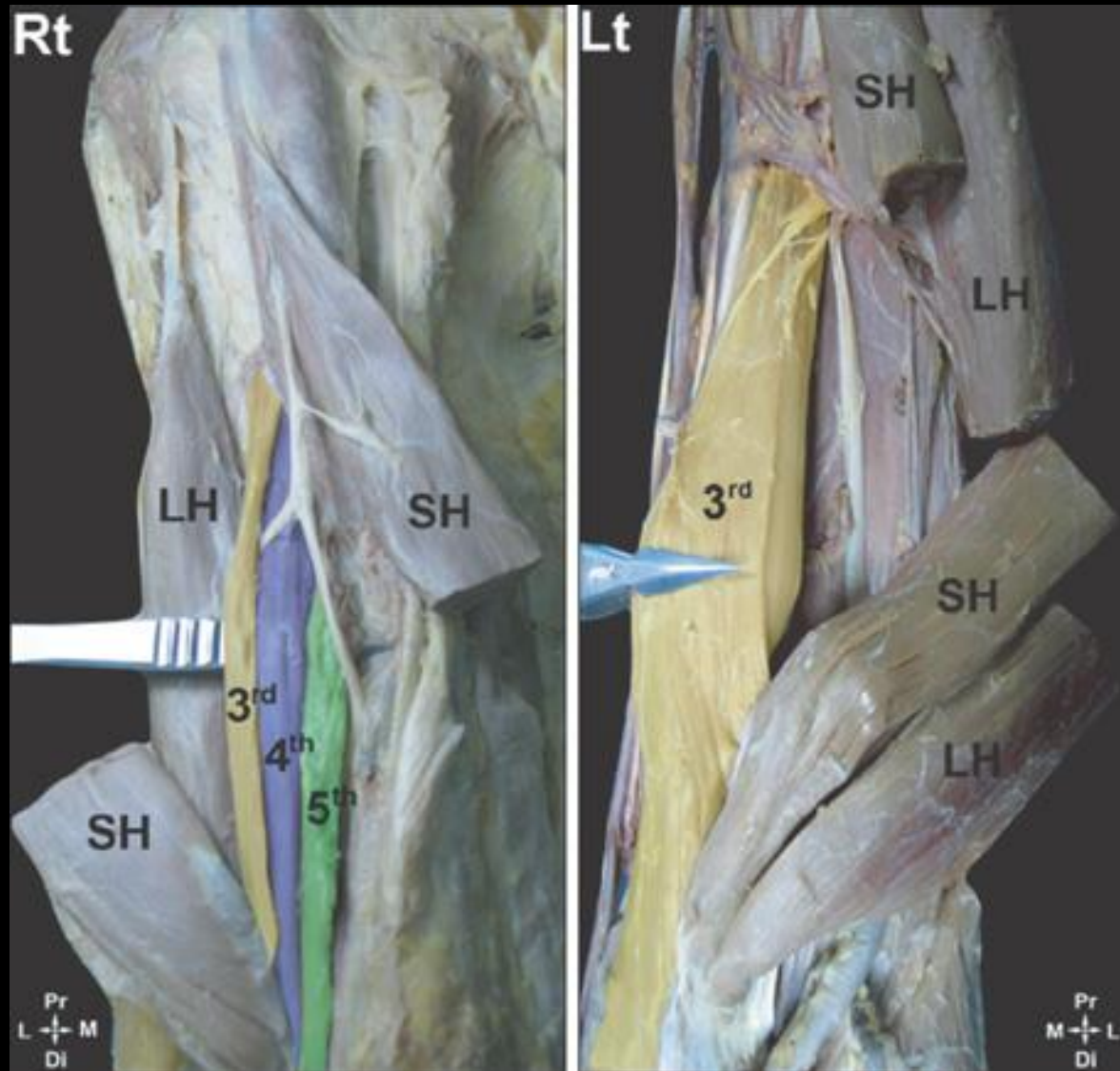
Accessory Biceps Tendon (The Aponeurotic Expansion of the Supraspinatus Tendon)



Variant Anterior Anatomy

- Anomalies located at the anterior aspect of the shoulder:
 - Accessory heads of the biceps brachii muscle
 - Coracobrachialis brevis muscle
 - Accessory subscapularis muscle
 - Aberrant muscle bundle originating from the latissimus dorsi or pectoralis major and minor muscles (Langers Axillary Arch)





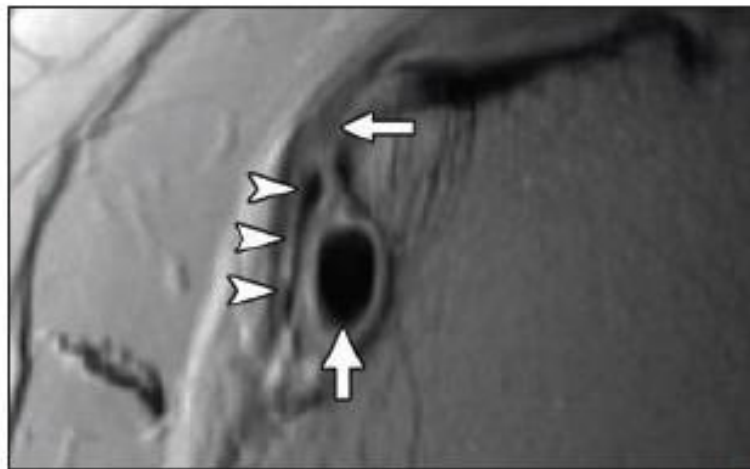
Accessory Head of Biceps Brachii Muscle: Anatomy, Histology, and MRI in Cadavers

Ramon Gheno^{1,2}
Cristiane S. Zoner¹
Florian M. Buck¹
Marcelo A. C. Nico¹
Parviz Haghighi³
Debra J. Trudell¹
Donald Resnick¹

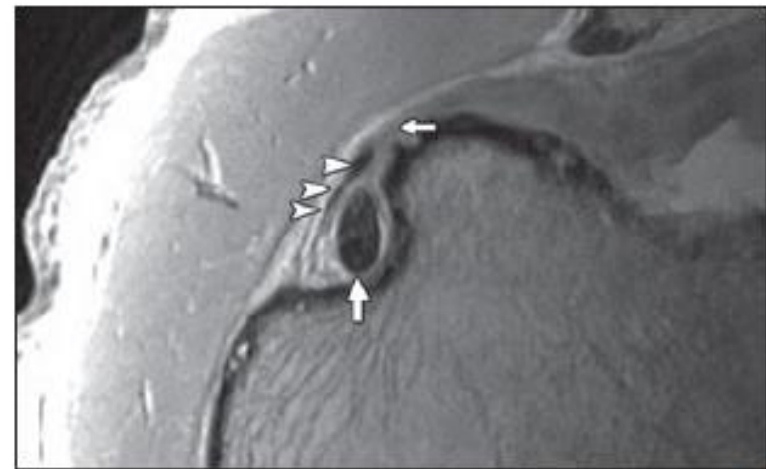
OBJECTIVE. The purpose of our study is to describe and define an anatomic variation located close to the bicipital groove using MRI with gross anatomic and histologic correlation in cadavers.

MATERIALS AND METHODS. Ten fresh male human shoulders were harvested and used in this investigation. They were derived from persons with a mean age of death of 78.9 years (age range, 58–92 years). MR arthrography using proton density–weighted sequences was used to obtain images in axial, coronal, and sagittal planes. After imaging, the specimens were cut in axial, coronal, and sagittal sections using a band saw. The slices were then photographed to allow correlation with the MR arthrographic images, followed by histologic analysis.

RESULTS. Two anomalous tendons, both intimate with the tendon of the long head of the biceps brachii muscle in the bicipital groove, were recognized. The origin of both tendons was in the greater tuberosity near the acromioclavicular joint. These structures had a muscular belly



A

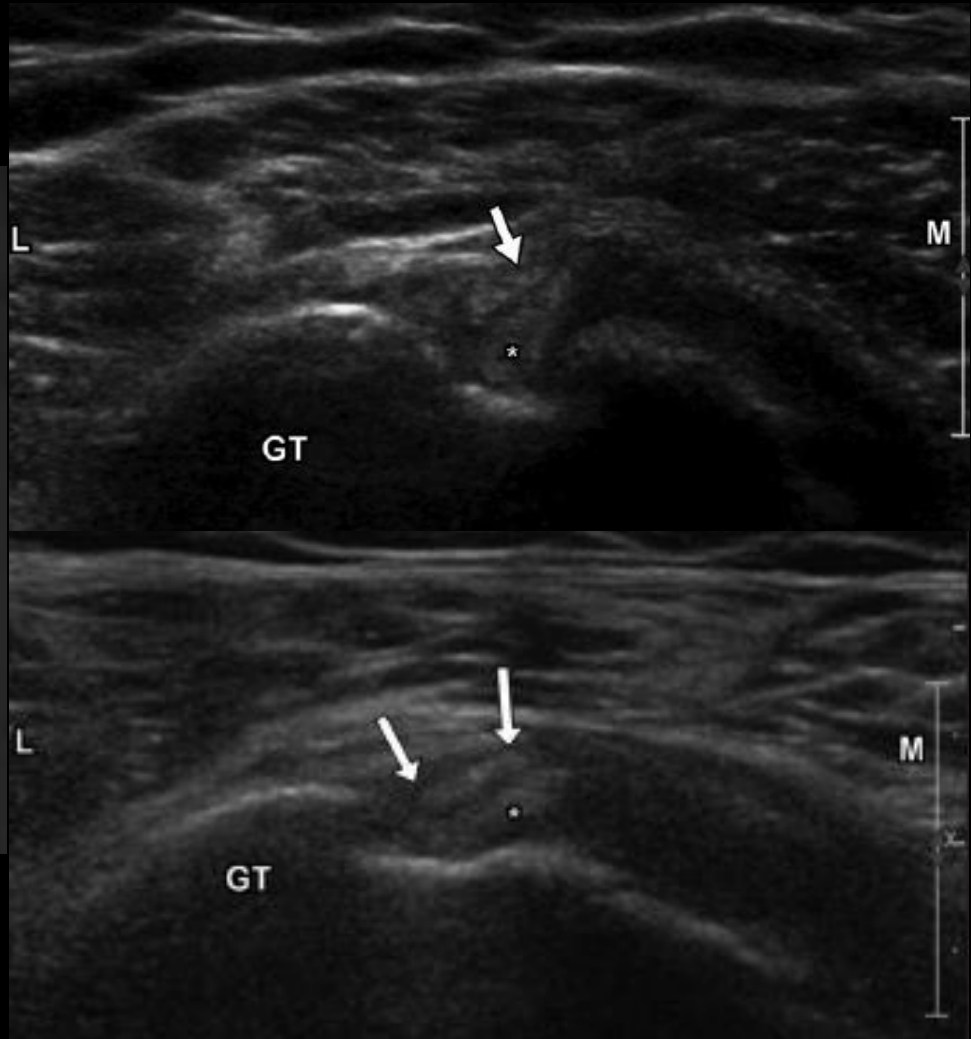
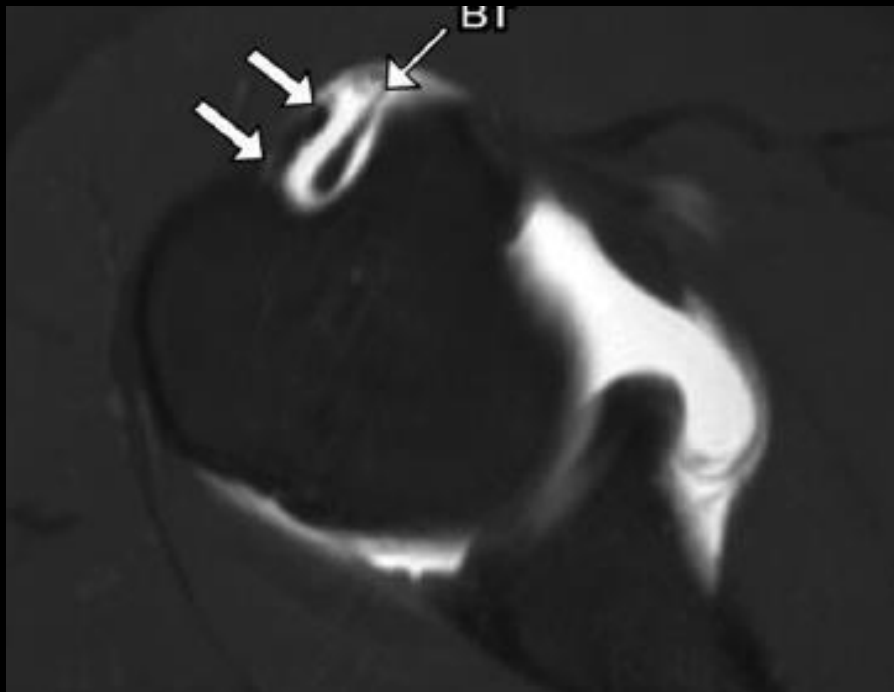


B

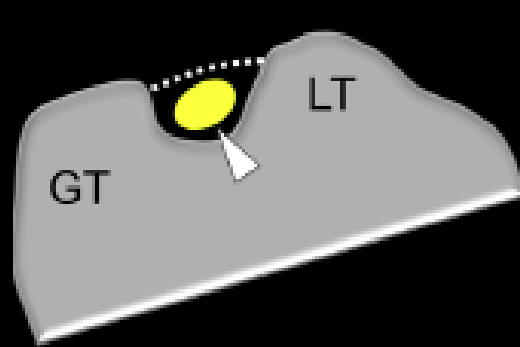
Fig. 2—Specimens from two male cadavers.

A and B, MR images in axial plane of two different male specimens (age at death, 91 years [A] and 79 years [B]) show anomalous tendon (*arrowheads*), long head of biceps tendon (*thick arrows*), and subscapularis tendon (*thin arrows*).

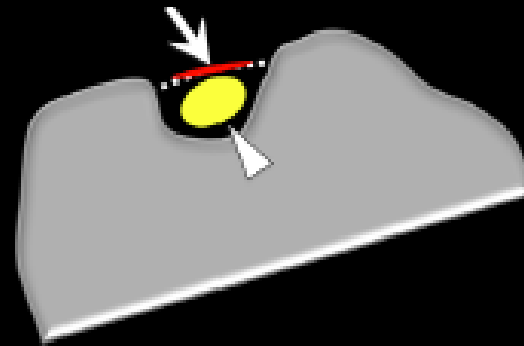
Sonography of the Accessory Head of the Biceps Brachii



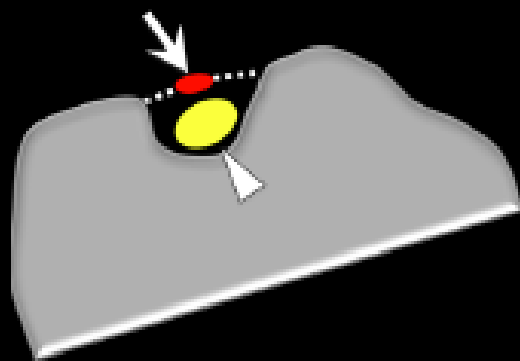
The Aponeurotic Expansion of the Supraspinatus Tendon



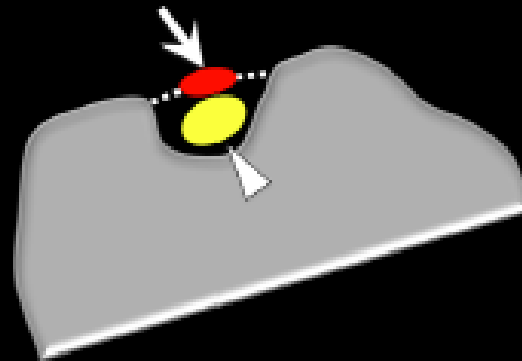
Type 0



Type 1

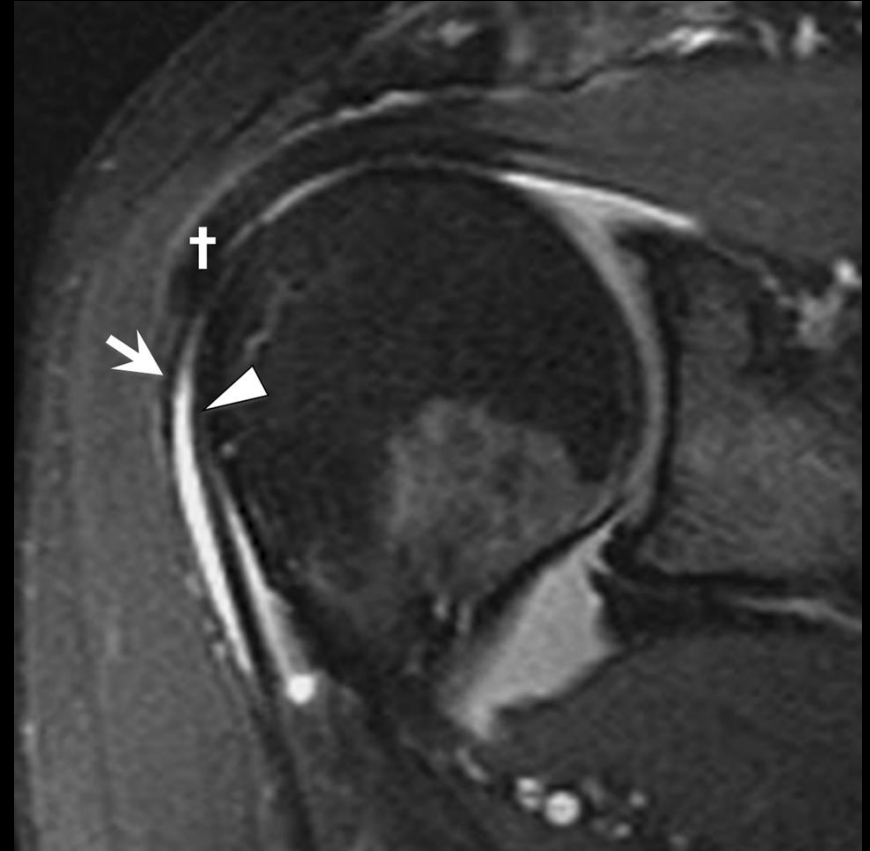
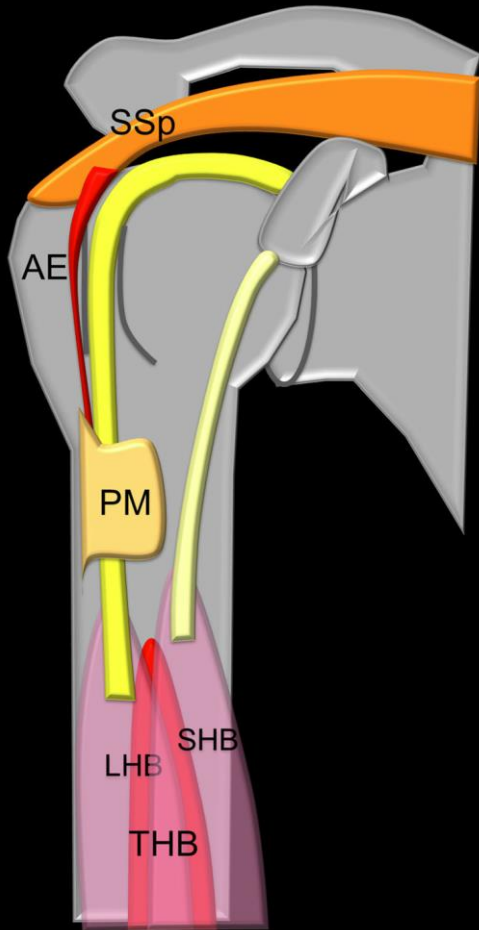


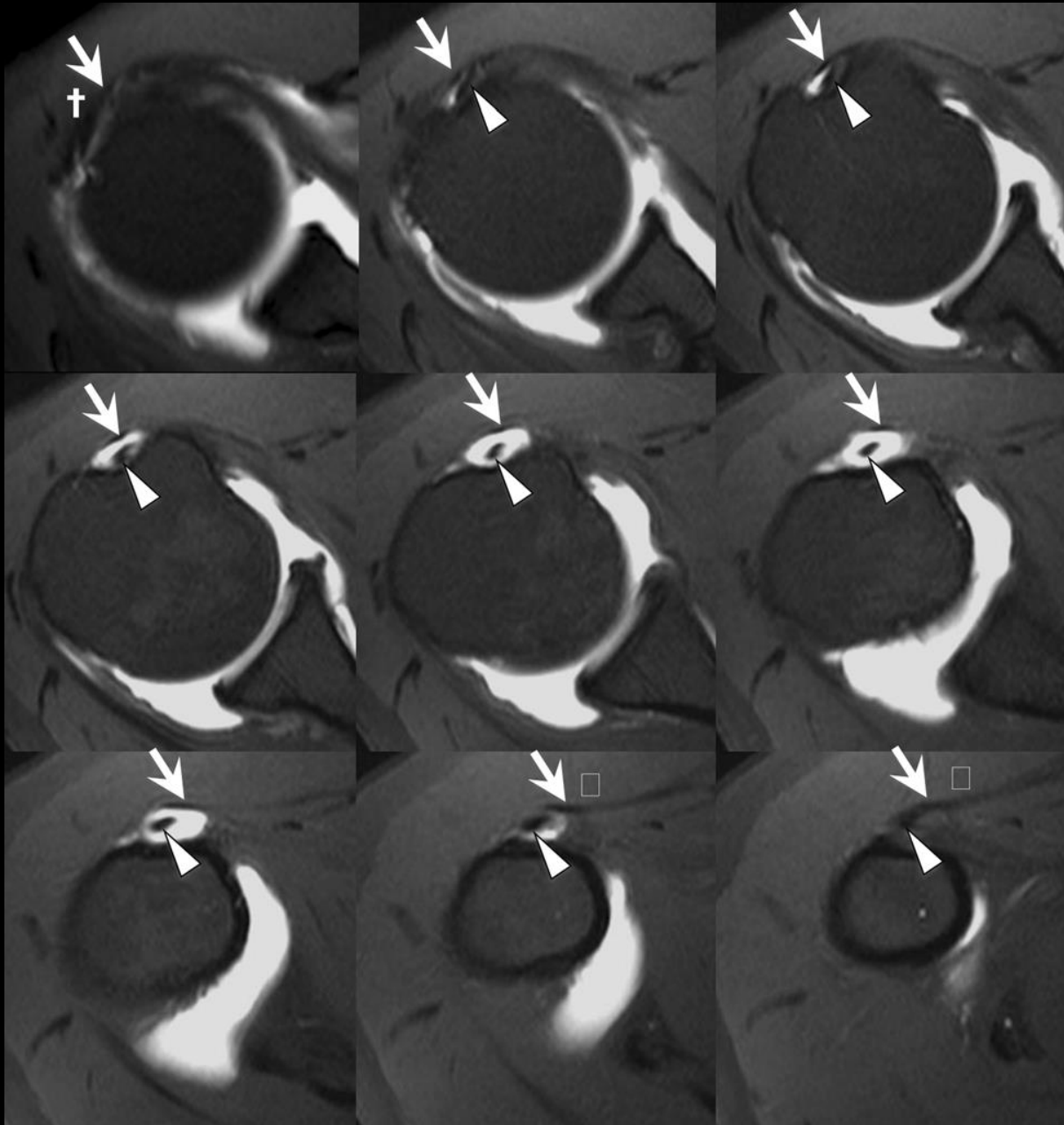
Type 2A



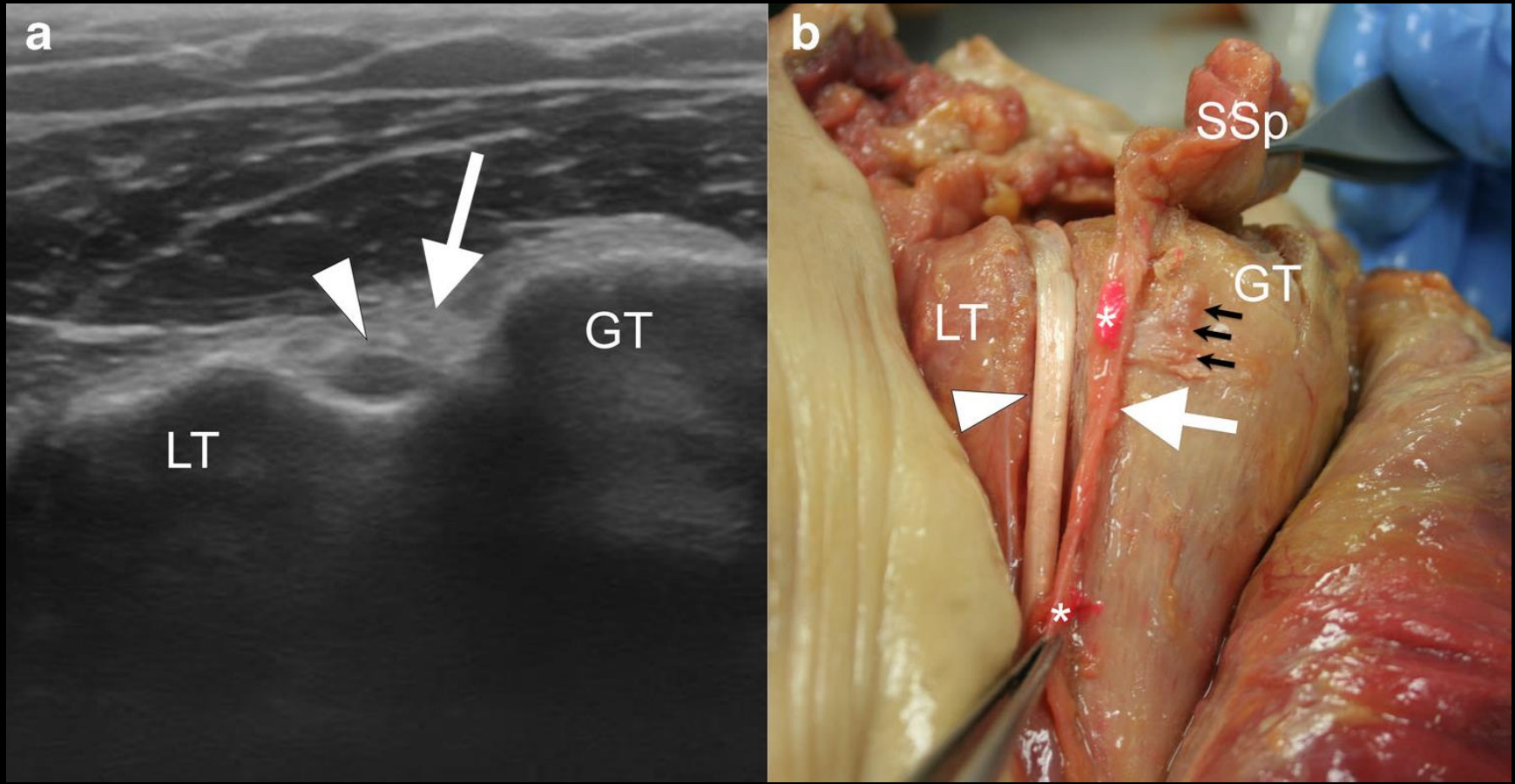
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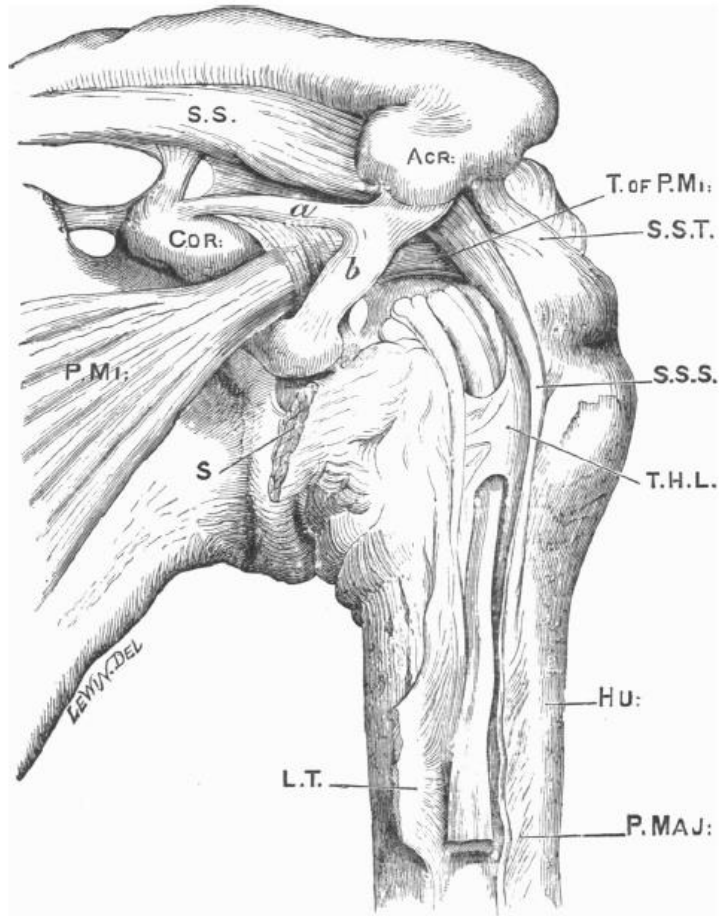
Aponeurotic Expansion of the Supraspinatus Tendon





Aponeurotic Expansion of the Supraspinatus Tendon





S.S.T – Supraspinatus Tendon
S.S.S – Slip from the S.S.T. passing down to reach the pectoralis major.
 T.H.L – Transverse Humeral Ligament
 P.Maj- Pectoralis Major

FIG. 3.—Showing the two bands of coraco-acromial ligament. *a*, inner; *b*, outer limb, with diaphanous centre. *N.B.*—The limbs are rather wider apart than is *usually* seen. P.Mi., pectoralis minor; T. of P.Mi., its tendon, replacing coraco-humeral ligament; T.H.L., transverse humeral ligament, with long tendon of biceps passing underneath; S.S., supraspinatus; S.S.T., its tendon inserted on to greater tuberosity; S.S.S., the slip from its tendon passing down to reach the pectoralis major; L.T., latissimus dorsi.

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