

Case History

- 55-year-old left-hand dominant female presented with chronic anterolateral right shoulder pain
- History of right rotator cuff repair, superior capsular reconstruction, and cervical fusion
- Endorsed "shooting" pain down the arm with paresthasias in the hand
- Underwent right reverse total shoulder arthroplasty (RTSA); shoulder pain initially improved after surgery
- Started home exercise regimen for strengthening
- Anterior shoulder pain worsened, with increasing pain occurring during cross-chest adduction
- No improvement with conservative treatment at 13 weeks



Primary Aim

This case report demonstrates how ultrasound can be used for diagnostic and therapeutic purposes for anterior shoulder pain

Physical Examination

Inspection:

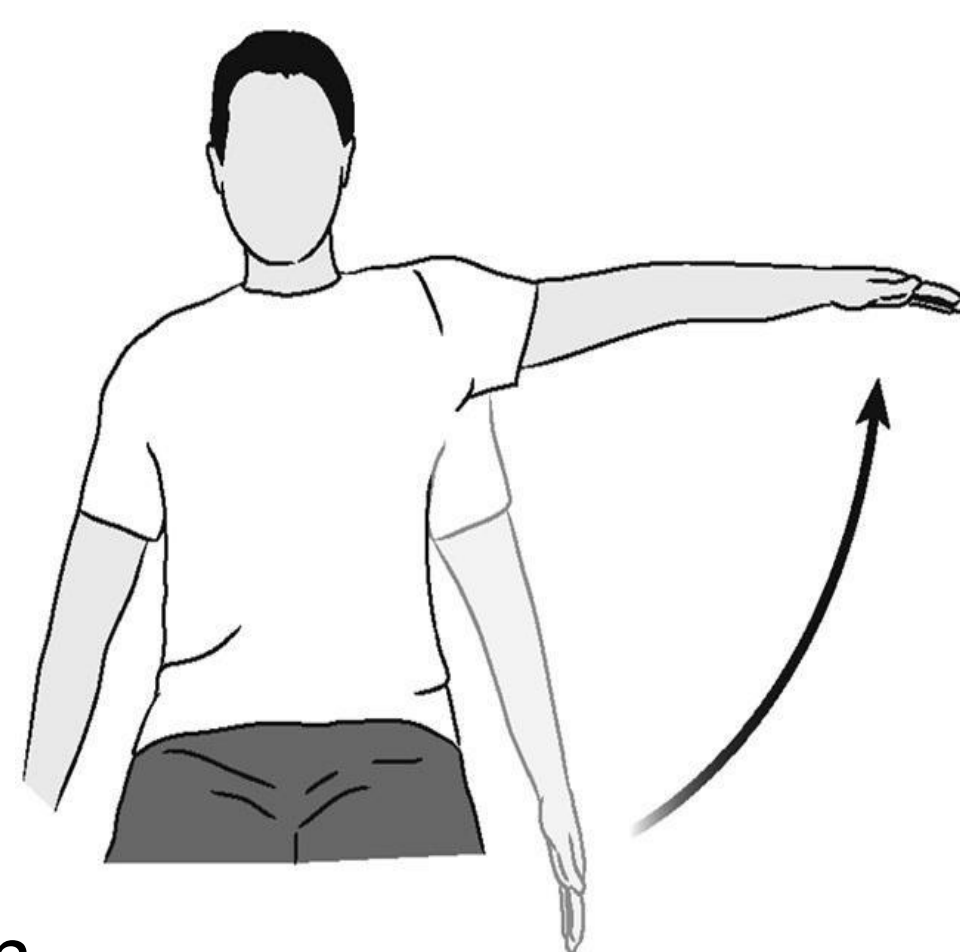
- No obvious deformities
- Incision without any drainage, erythema, or evidence of infection

Palpation:

- Tenderness to palpation at the anterior shoulder

Strength:

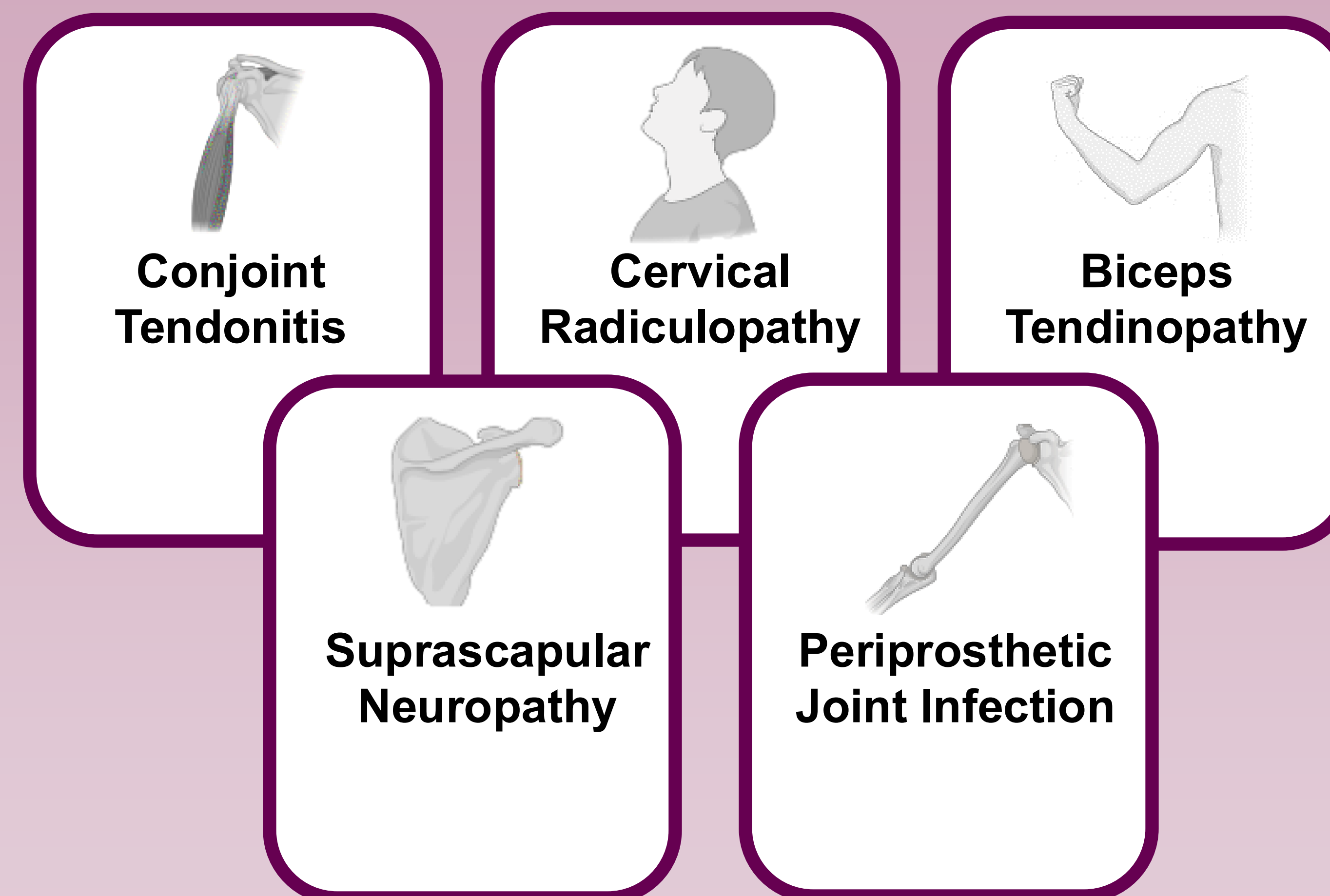
- 5/5 strength with shoulder abduction



Shoulder Maneuver	Patient's Range of Motion	Normal Range of Motion
External rotation	20 degrees	90 degrees
Internal rotation (behind the back)	To S2 (at the PSIS)*	To T5-T10
Flexion	90 degrees	180 degrees
Abduction	90 degrees	180 degrees

Figure 1. Results from shoulder examination
*PSIS = Posterior Superior Iliac Spine

Differential Diagnoses



Tests & Results

- X-ray of the shoulder was negative for acute fracture and dislocation; hardware was in acceptable alignment
- Conjoint tendon identified by physiatrist on ultrasound at the 5-month postoperative visit
- Diagnostic and therapeutic conjoint tendon sheath corticosteroid injection was performed using an in-plane, transverse approach
- Pre-procedure pain = 10/10 on VAS pain scale
- Immediate post-procedure pain was significantly improved

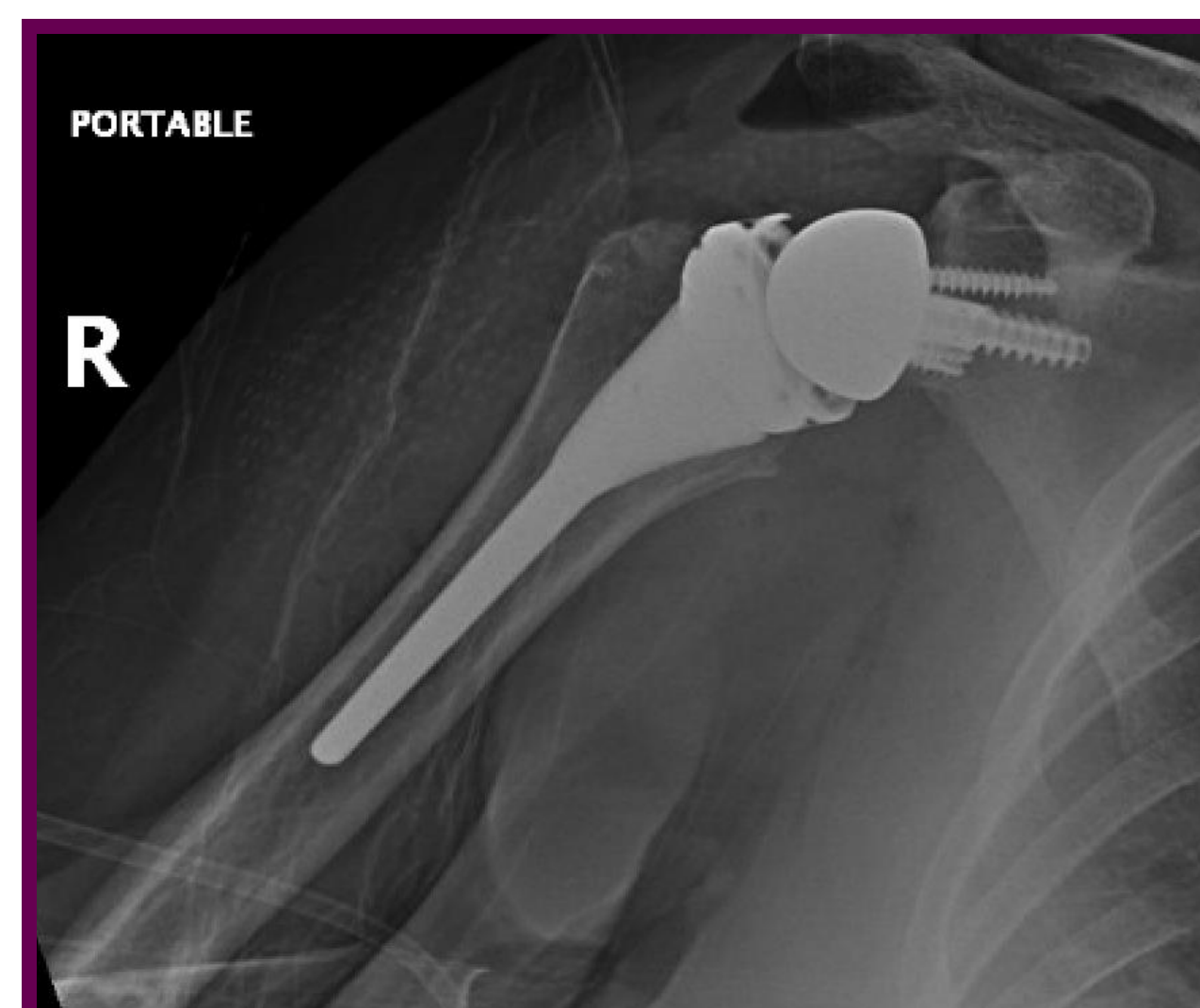


Figure 2. X-ray of right shoulder

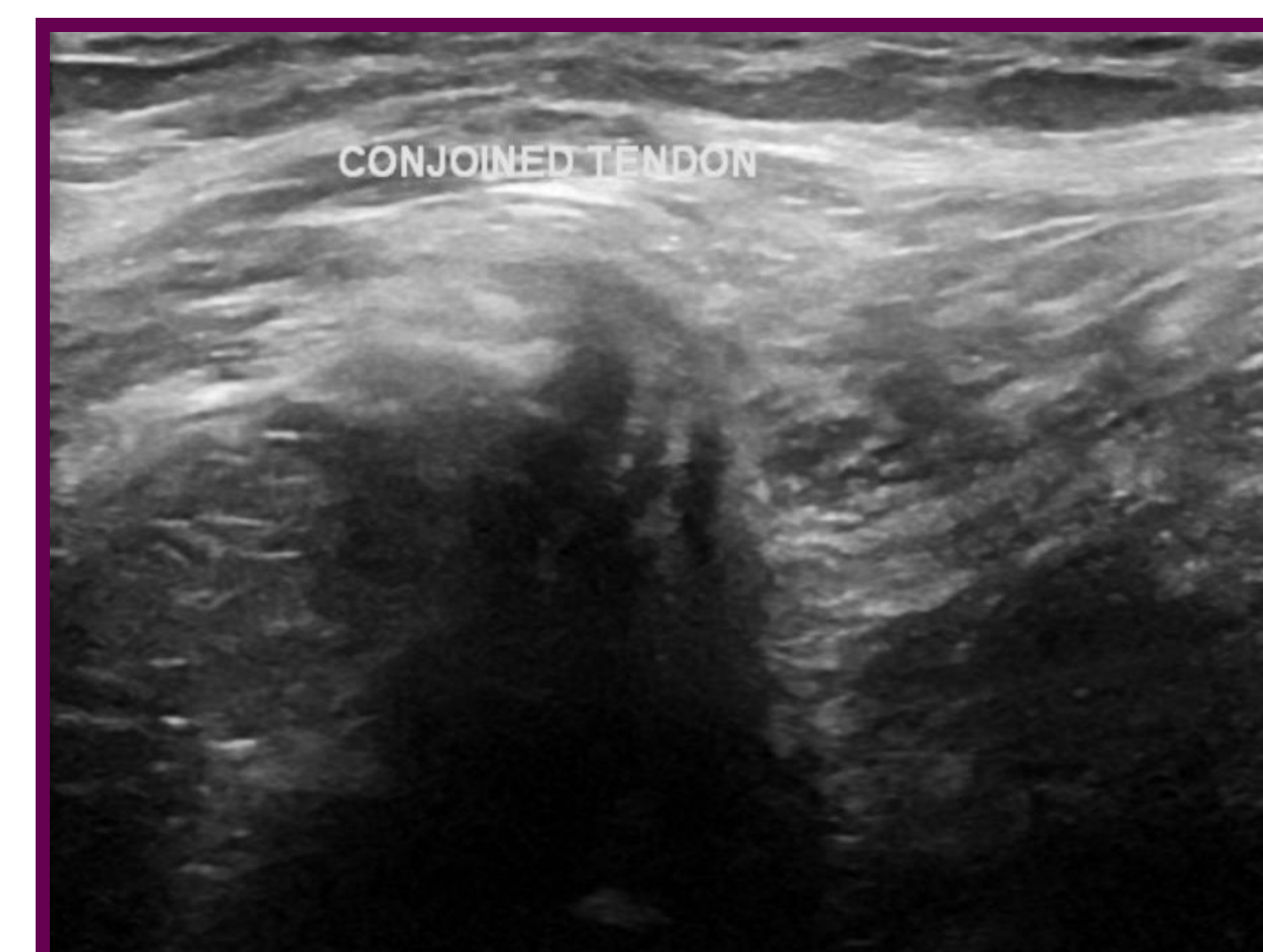


Figure 3. Ultrasound of right shoulder revealing conjoint tendon

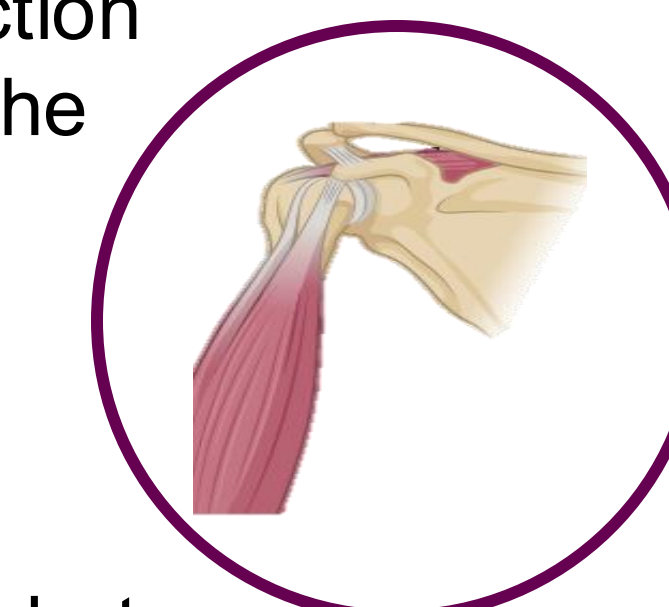
Diagnosis & Discussion

Working Diagnosis:

CONJOINT TENDONITIS

Discussion:

- Improvement in pain following steroid injection and subsequent tendon release supports the conjoint tendonitis diagnosis
- Conjoint tendonitis: inflammation of the conjoint tendon of the shoulder (coraco-brachialis and short head of the biceps)
- There is limited literature on this condition, but it is thought to be caused by over-tensioning of the tendon during surgery [1]
- Can limit post-RTSA recovery if not diagnosed and treated
- Possible solutions include conjoint tendon lengthening and release [2,5]
- Future studies should investigate additional avenues for optimizing functional status after a shoulder replacement



Primary Takeaway

This case report provides evidence that ultrasound can be used to perform diagnostic and therapeutic injections for conjoint tendonitis, which can further assist the surgeon in the decision to pursue a conjoint tendon release

Return to Activity / Follow-Up

Pain:

- Patient had improvement in pain and range of motion following the conjoint tendon release
- Residual pain was attributed to postoperative recovery

Activity:

- Engaged in range of motion exercises at home to improve shoulder mobility
- Excused from work as a bus driver for further recovery

