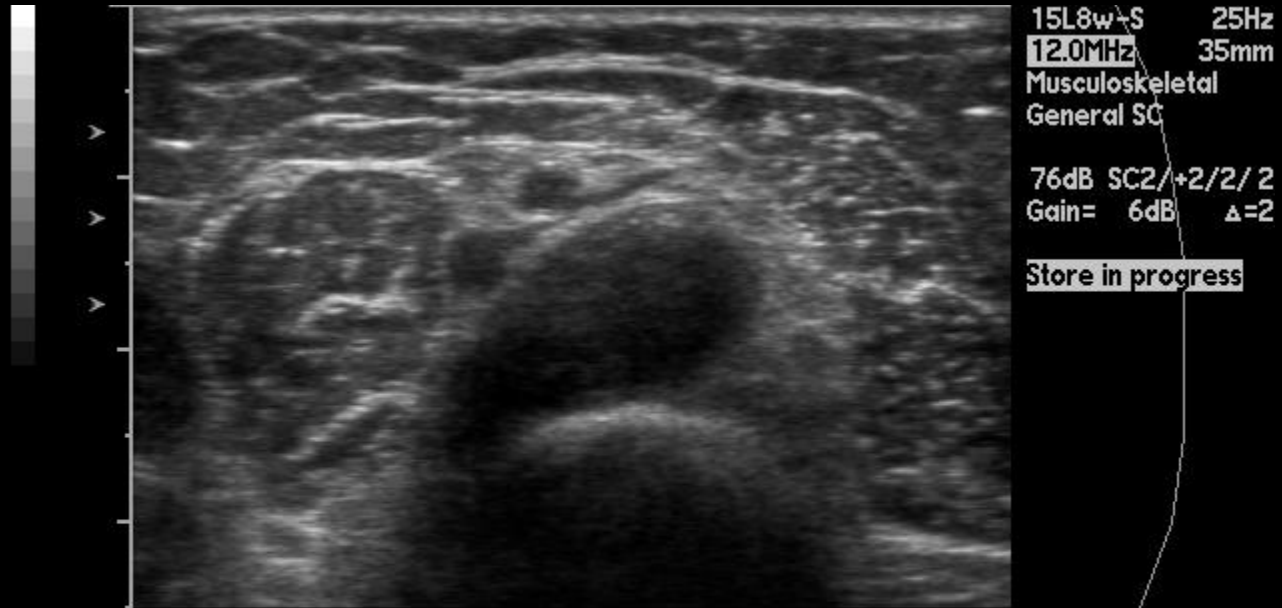




60 year female with pain and palpable mass at the antecubital fossa.

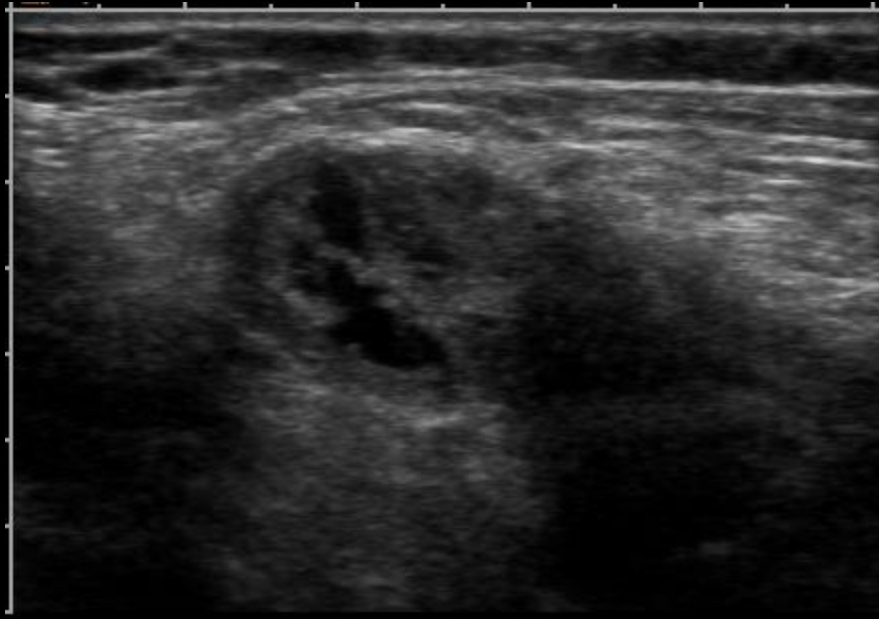
Vince Paul, MD

# Initial workup with ultrasound

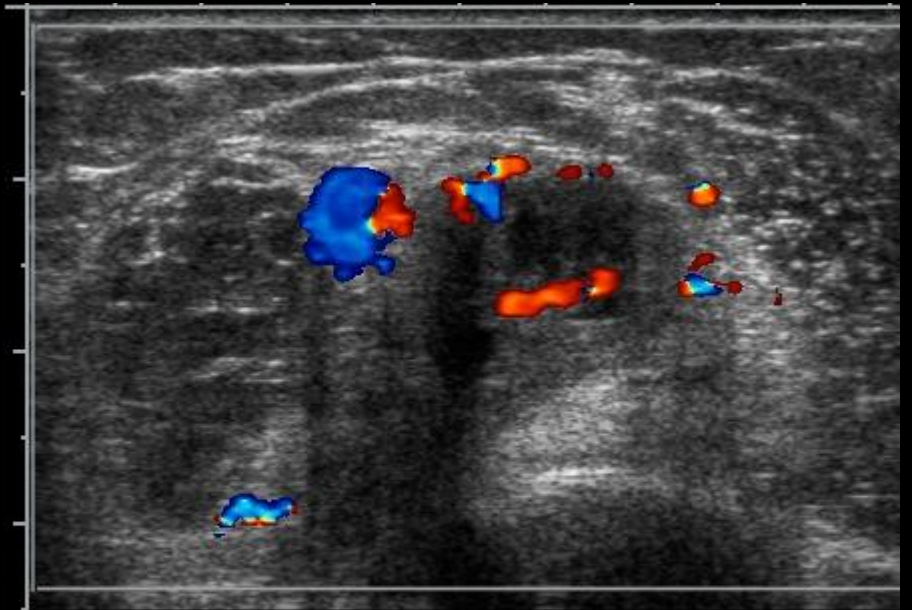


LT ANTECUBITAL FOSA  
AREA OF CONCERN TRV SUP-INF

# Initial workup with ultrasound

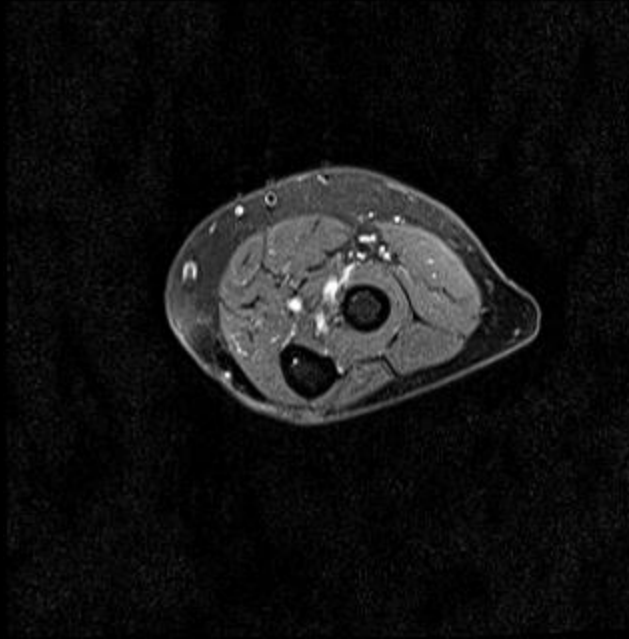


LT ANTECUBITAL FOSA  
AREA OF CONCERN LONG LAT MED

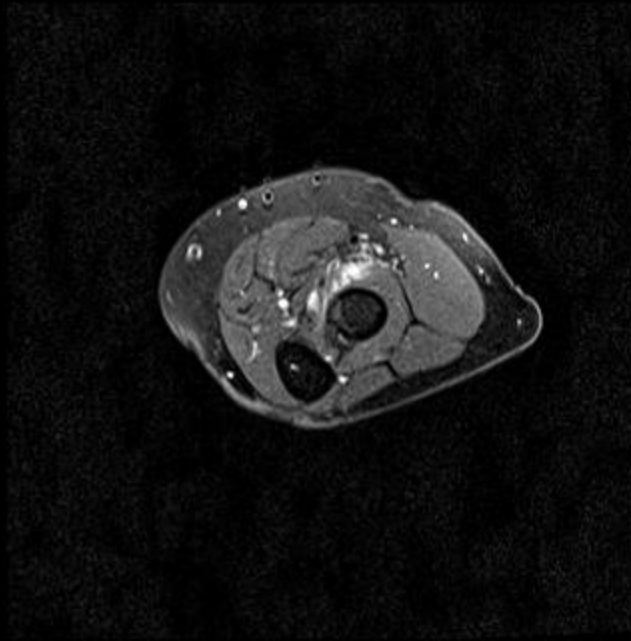


LT ANTECUBITAL FOSA  
AREA OF CONCERN TRV

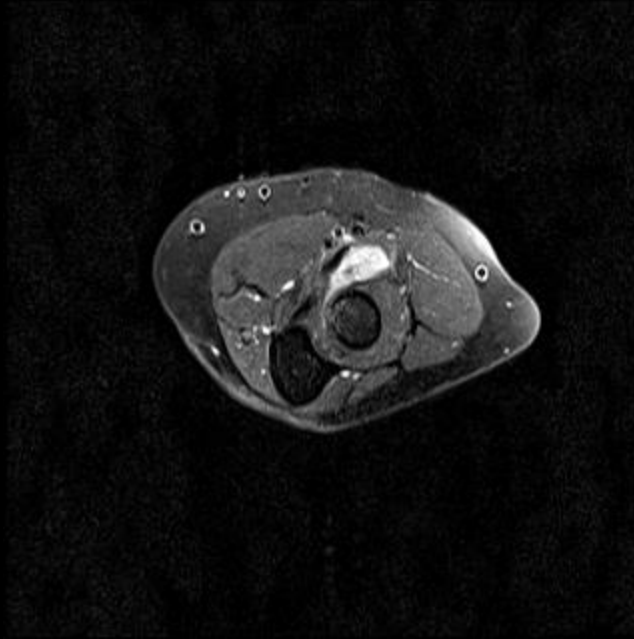
- MRI of the elbow



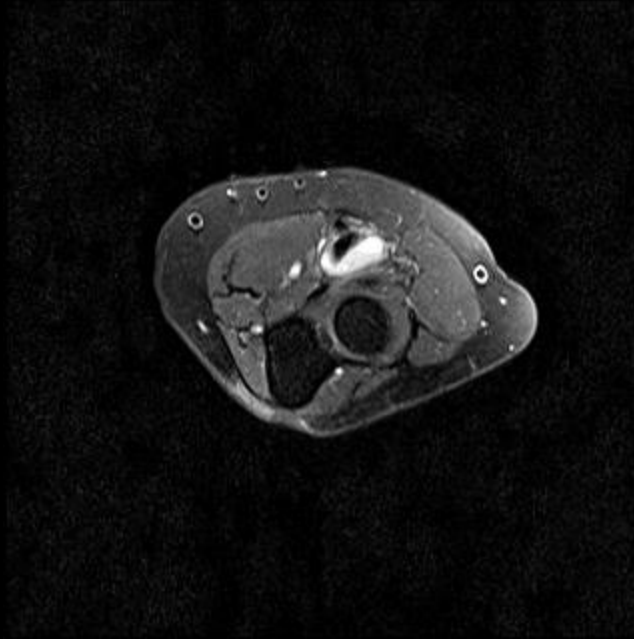
- MRI of the elbow



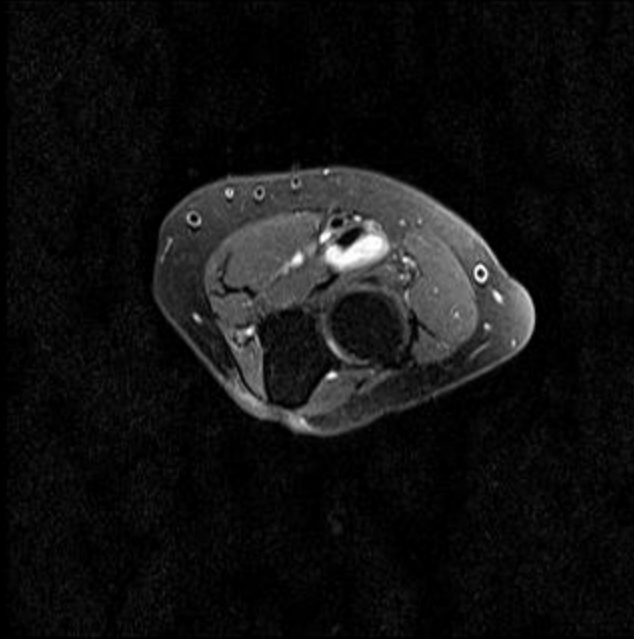
- MRI of the elbow



- MRI of the elbow

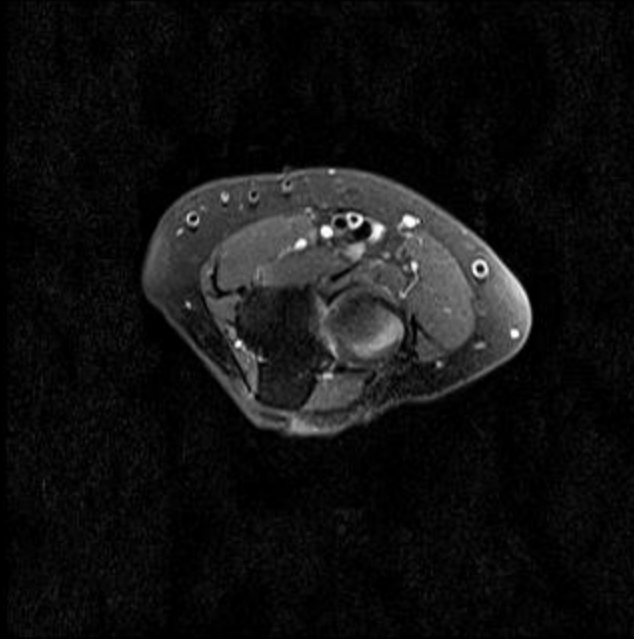


- MRI of the elbow





- MRI of the elbow



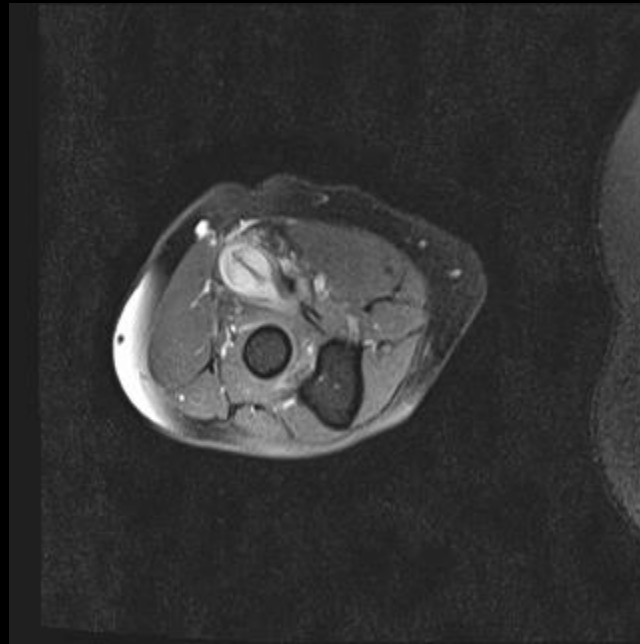
# Findings

- Well circumscribed fluid collection deep to and running along the course of the biceps tendon
- Interposed between the distal biceps tendon and radial tuberosity
- Internal debris and synovial thickening and irregularity

# Diagnosis

- Bicipitoradial bursitis

# Contralateral Elbow

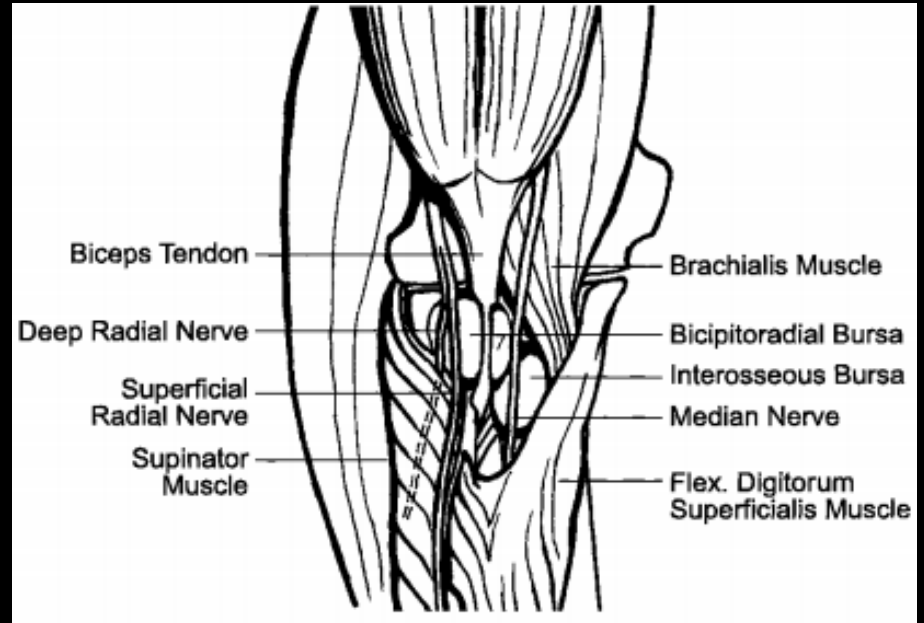


# **Bicipitoradial Bursitis: MR Imaging Findings in Eight Patients and Anatomic Data from Contrast Material Opacification of Bursae Followed by Routine Radiography and MR Imaging in Cadavers<sup>1</sup>**

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David S. Chou, MD  
Nittaya Lektrakul, MD  
Debra J. Trudell, RA  
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Donald L. Resnick, MD

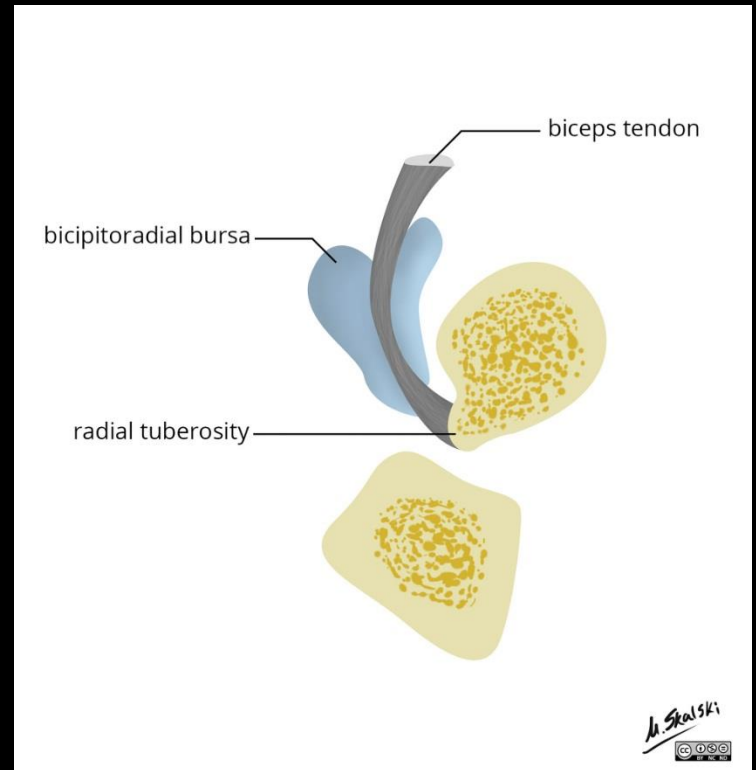
# Bursae

- Two bursae found in the cubital tunnel
  - Bicipitoradial
  - Interosseous



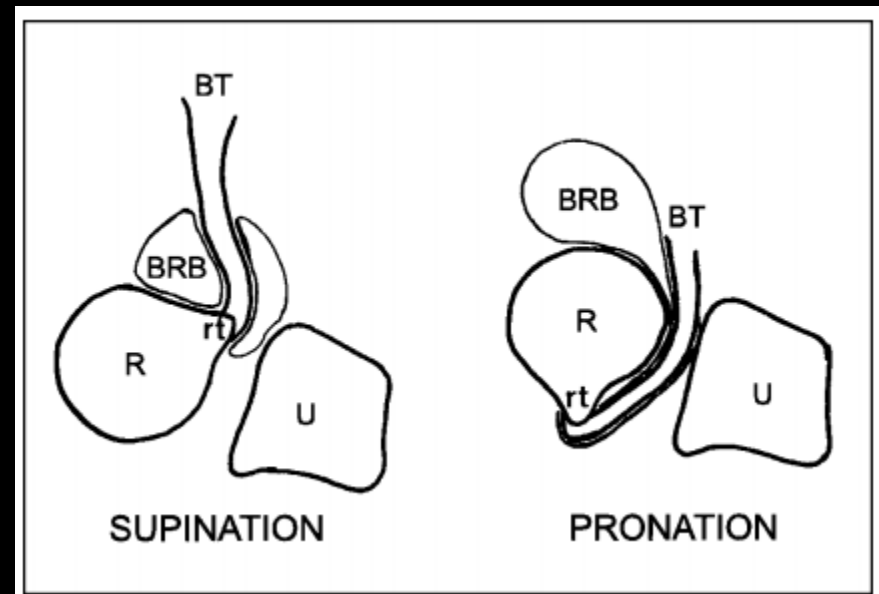
# Bicipitoradial Bursa

- A subtendinous bursa (occurring between a tendon and bone) with a synovial lining
- Functions to reduce friction between the biceps and radius

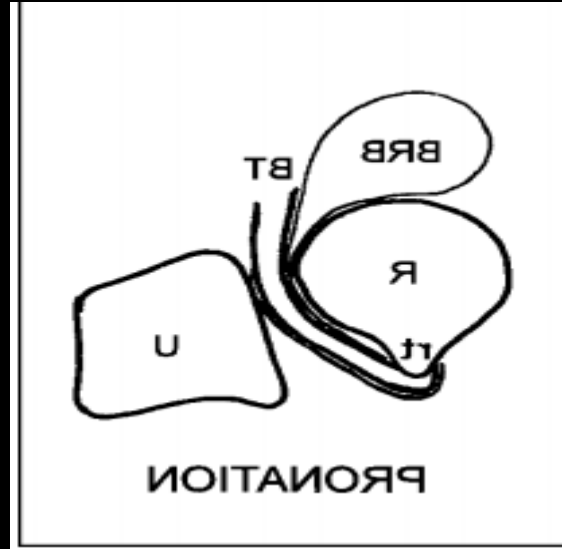
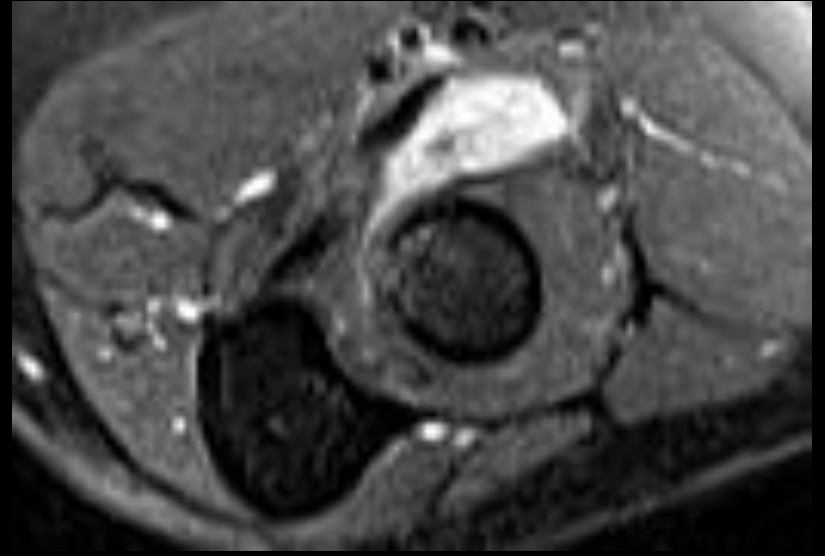
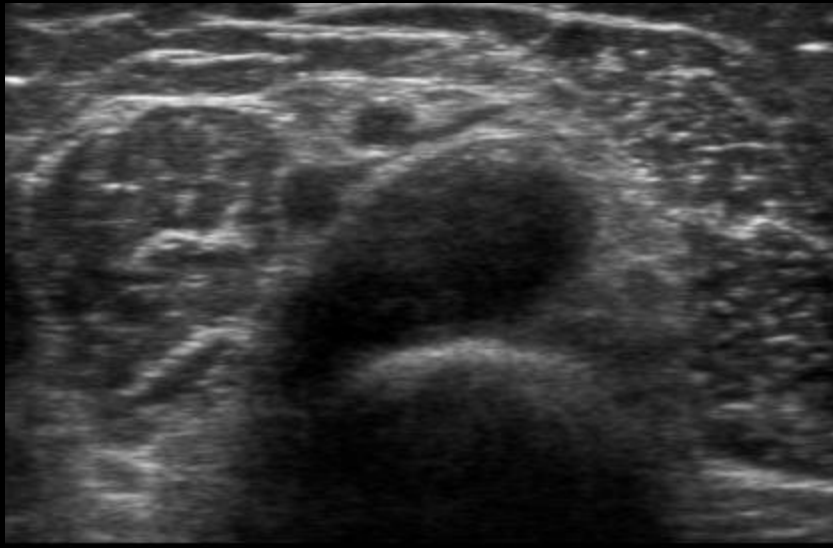


# Bicipitoradial bursa

- In supination it surrounds the biceps tendon
- In pronation it is compressed between the radius and biceps tendon
- In the study, the cadaveric specimens evaluated showed no identifiable sheath of the distal tendon of the biceps brachii
- Also there were no cases where the bicipitoradial bursa communicated with either the interosseous bursa or elbow joint

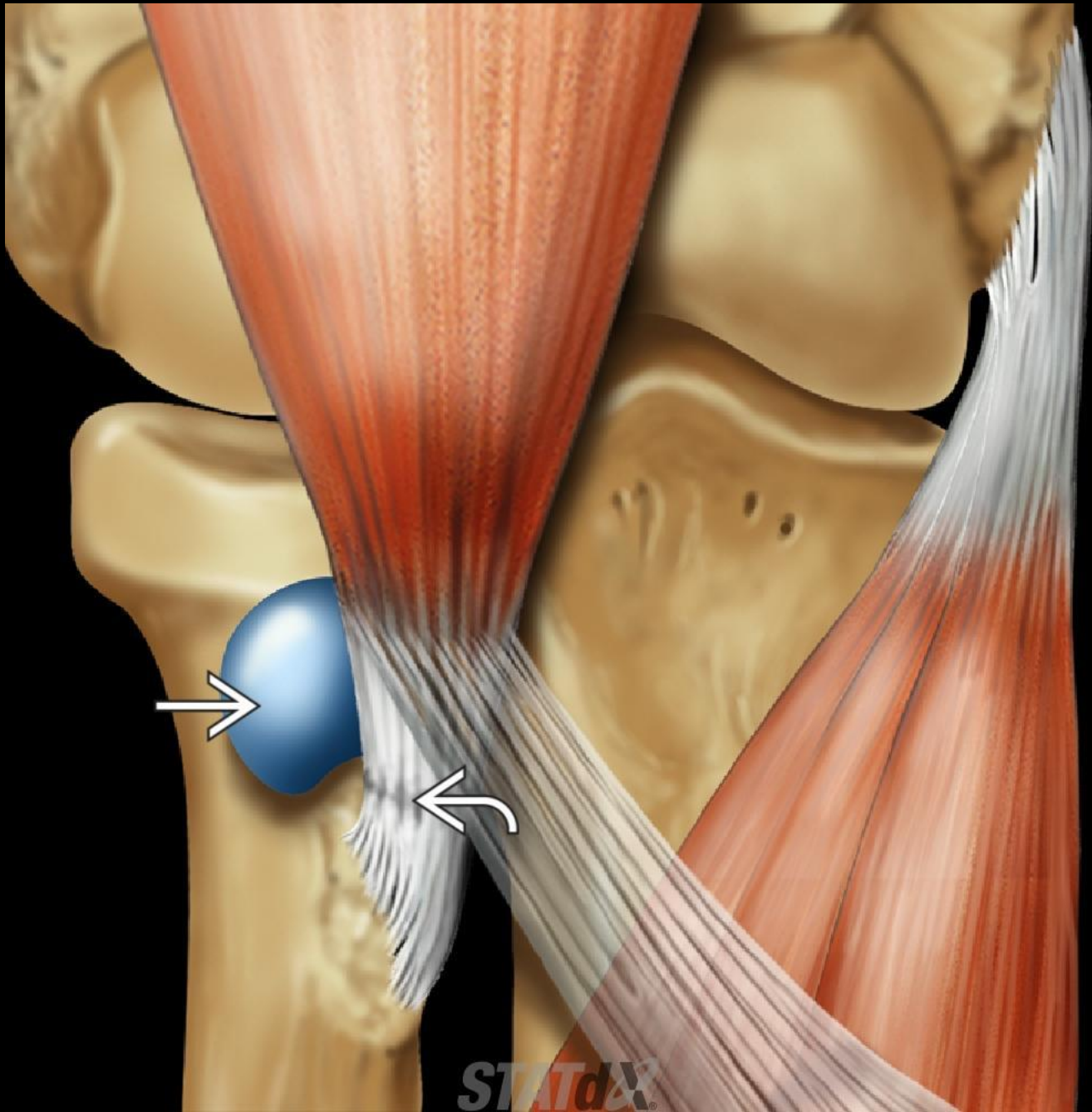






# Bicipitoradial bursitis

- Bicipitoradial bursa
  - May become inflamed due to:
    - Repetitive mechanical trauma is the most frequent cause – Supination/ Pronation
    - Often associated with partial tears of the biceps tendon
    - Inflammatory Arthropathy
      - Rheumatoid
      - Gout
    - Chemical synovitis
    - Synovial Chondromatosis



# Presentation

- Typically presents with a mass
  - (+/-) Pain with supination
- May be acute or chronic
- May lead to compression of adjacent nerves
  - Superficial branch of the radial nerve
    - Sensory related symptoms
  - Deep branch of the radial nerve (posterior interosseous nerve)
    - Motor related, extensor weakness
- In the study there were no cases of median nerve involvement

# Imaging

- MR Imaging allows assessment of the relationship between the bicipitoradial bursa and the adjacent structures
- To confirm enlargement of the bursa
- Should be recognized as distinct from tenosynovitis or a ganglion cyst.

# Treatment

- Acute
  - Rest, NSAIDS, aspiration, steroid injection
- Chronic
  - Splinting / Rest are less helpful
  - Remove calcium if present

# References

1. Skaf AY et al: Bicipitoradial bursitis: MR imaging findings in eight patients and anatomic data from contrast material opacification of bursae followed by routine radiography and MR imaging in cadavers. Radiology. 212(1):111-6, 1999
2. Sonin, A: Bicipitoradial bursitis. <https://my.statdx.com/document/bicipitoradial-bursitis/3438c2ca-d00f-4bf2-9adf-c73756742465?searchTerm=Bicipitoradial%20Bursitis>