

Medial Elbow Exposure: Taylor-Scham Versus FCU-Split

Taylor Bates, MD^a

Thomas Lynch, MD^a

Jennifer Achay, AS, FF, NRP^b

Robert Powers, Do^a

Casey Sabbag, MD^a

Benjamin Plucknette, MD^a

David Wilson, MD^a

a. San Antonio Military Medical Center, Department of Orthopaedic Surgery, Fort Sam Houston, TX

b. Center for Emergency Health Sciences, Spring Branch, TX

Disclaimer

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Disclosures

The authors have no disclosures.



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Introduction

Coronoid process contributes to elbow stability

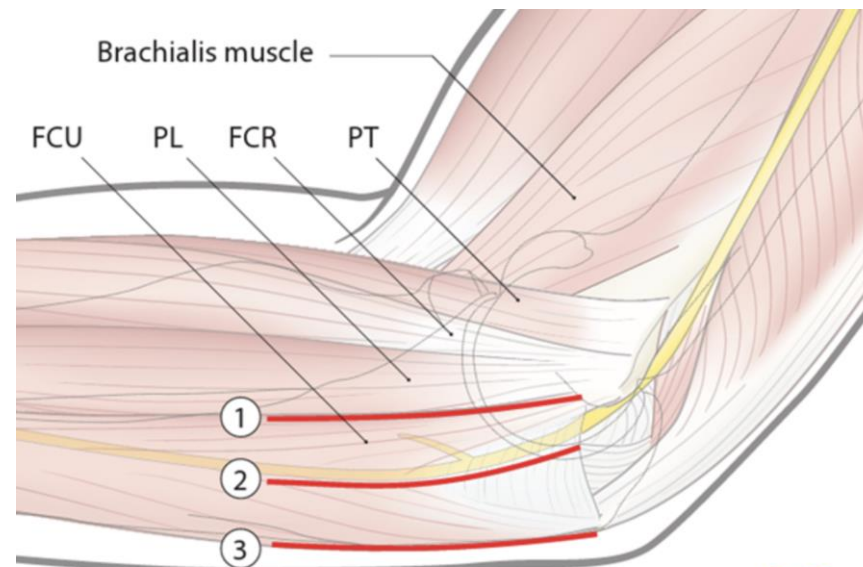
- Anterior buttress
- Attachment for anterior band of MCL at sublime tubercle

Anteromedial facet fractures

- Varus posteromedial rotatory instability

Accessed through **medially-based approaches**

1. Hotchkiss Over-the-Top
2. Flexor carpi ulnaris (FCU) split
3. Taylor-Scham



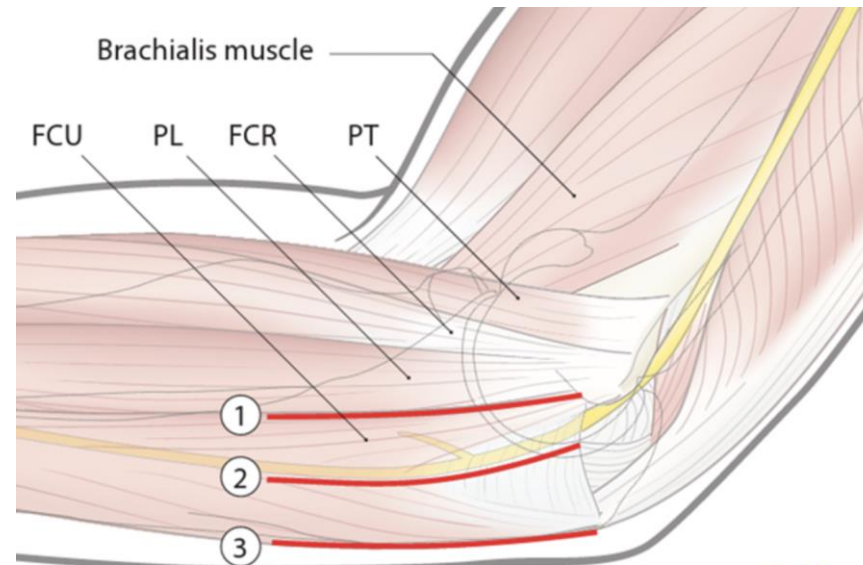
Introduction

Exposure of anteromedial structures varies between approaches

FCU-Split provides greater exposure than Hotchkiss Over-the-Top¹

Hypothesis:

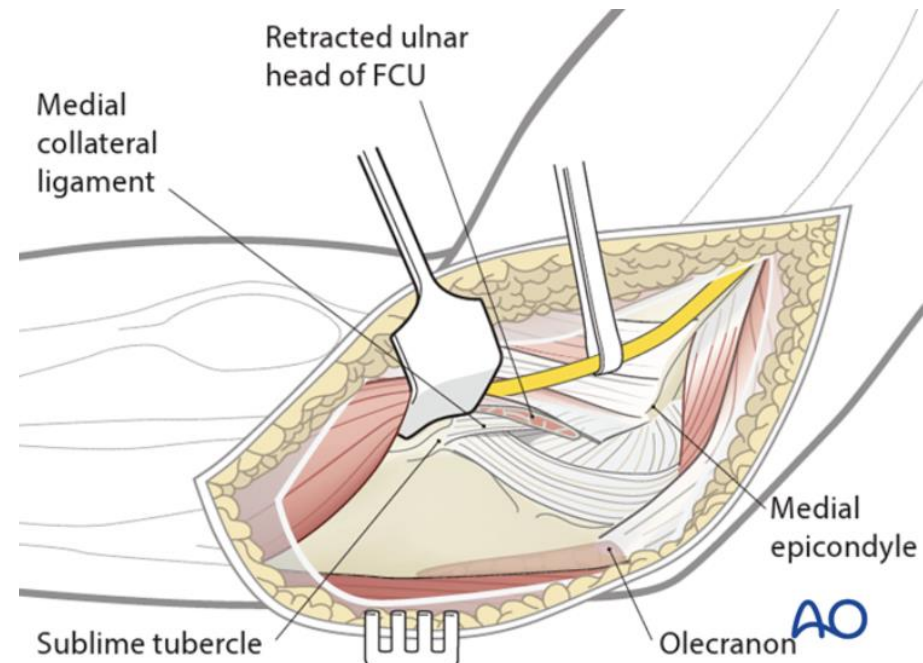
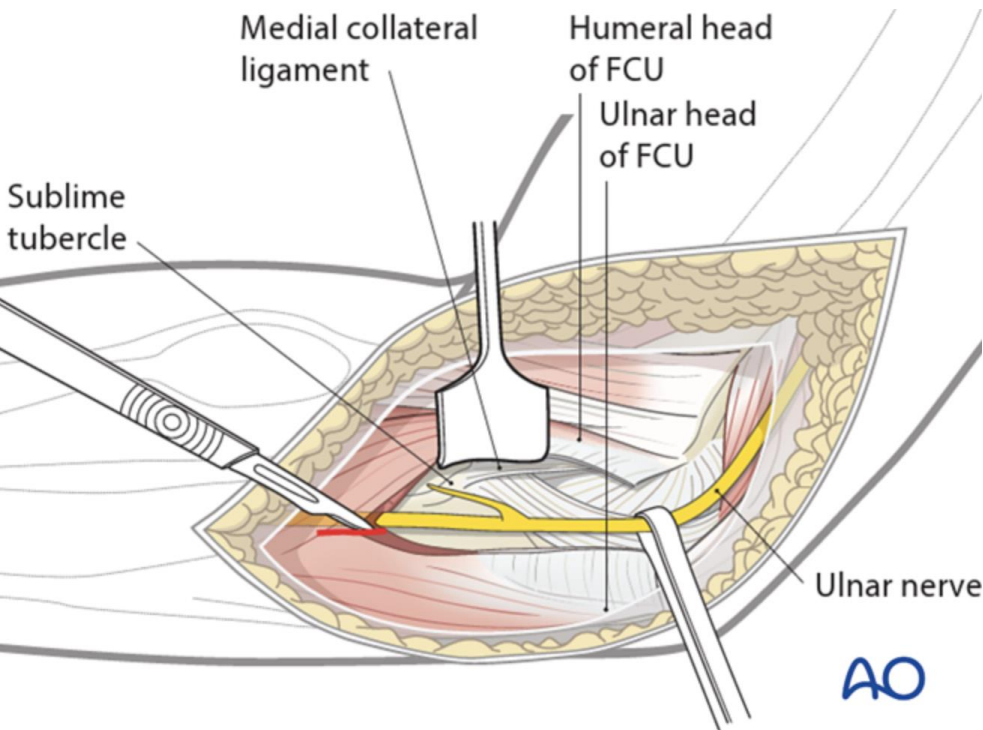
Taylor-Scham provides greater exposure than the FCU-Split while avoiding cross tensioning of the ulnar nerve



Methods

Thirty approaches performed on fifteen fresh cadaveric elbows

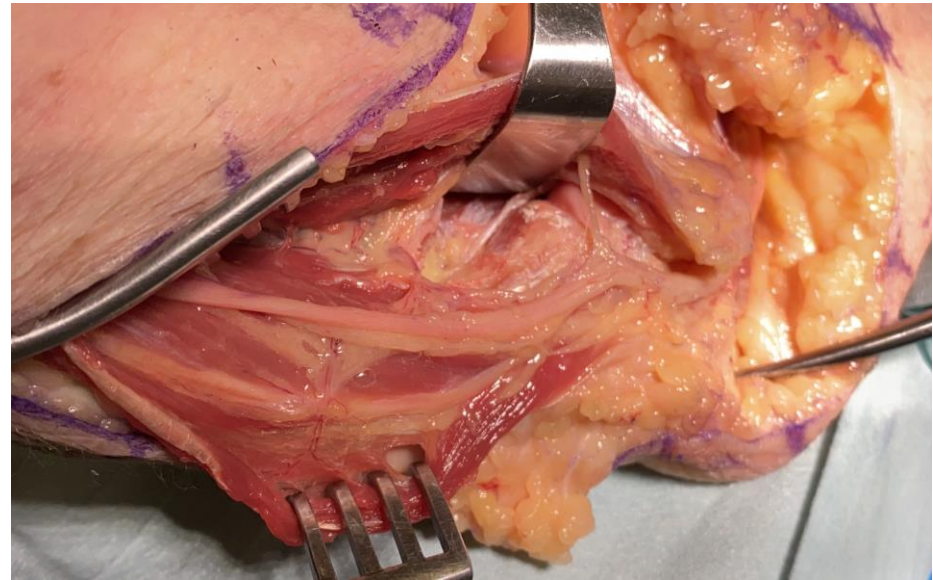
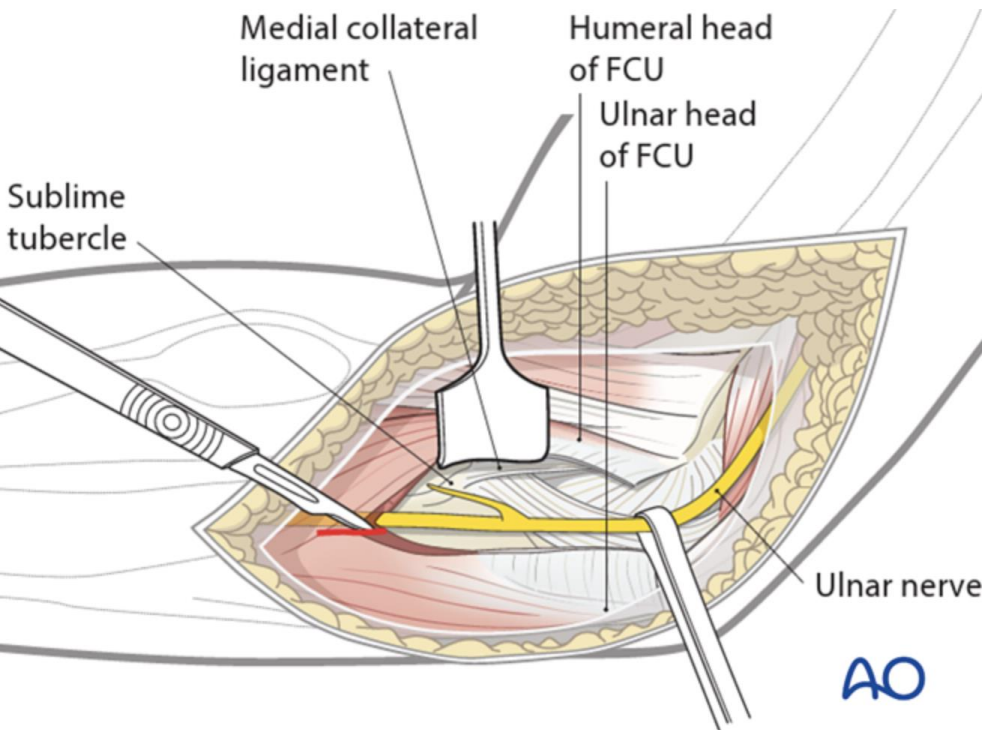
Standardized incision



Methods

FCU-Splitting

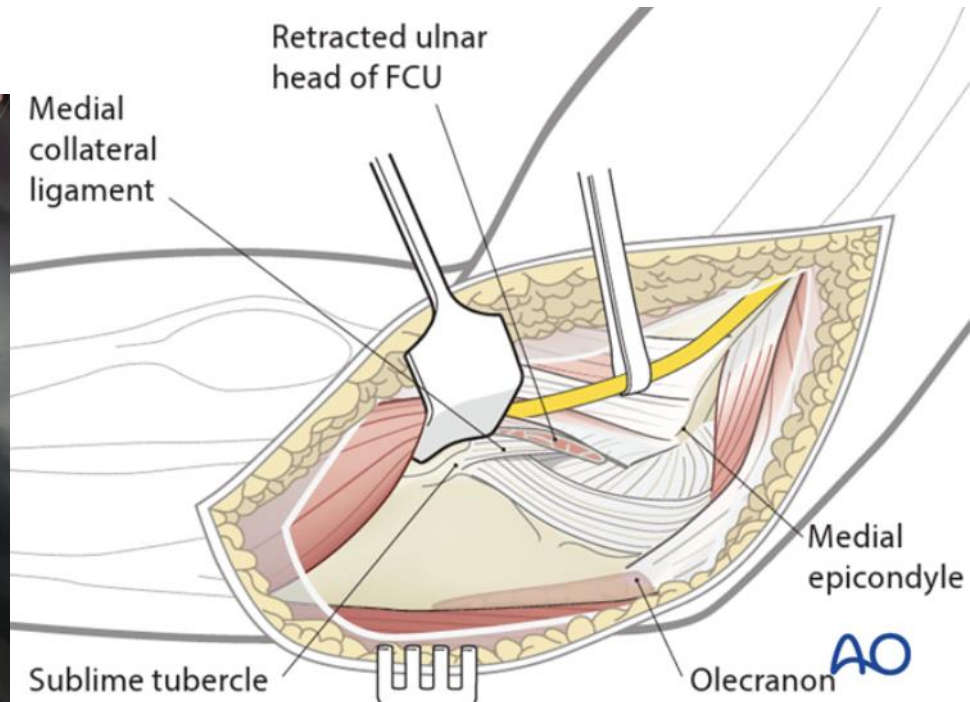
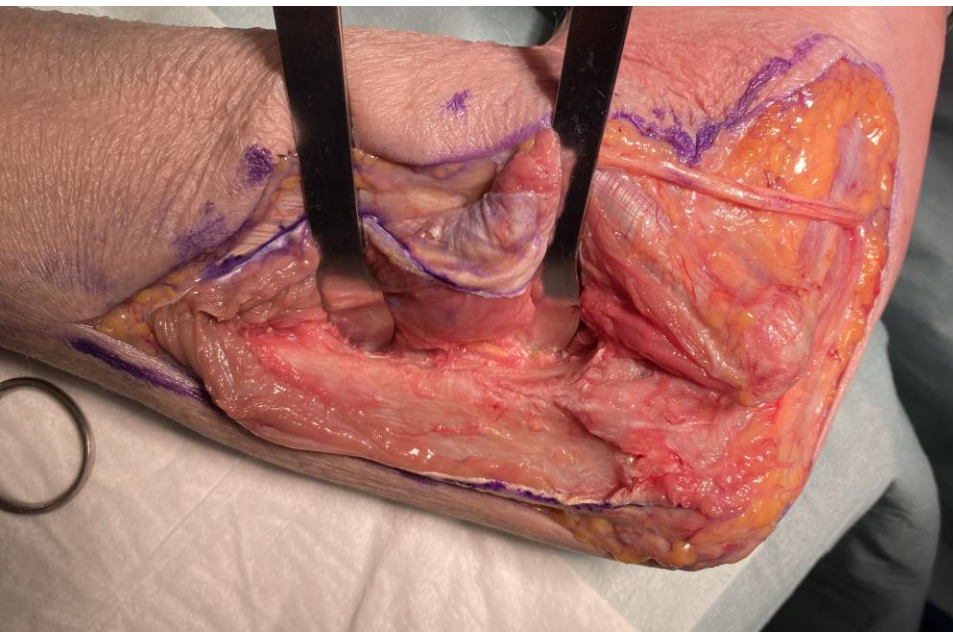
- Ulnar nerve identified splitting FCU
- **Two heads of FCU split**
- Ulnar nerve motor branches sacrificed as needed for exposure
- Ulnar head of FCU elevated to **expose coronoid, MCL, and capsule**
- Capsulectomy performed to clearly define osseous structures



Methods

Taylor-Scham

- Ulnar nerve identified splitting FCU and **transposed**
- **FCU/pronator mass elevated** to expose coronoid, MCL, and capsule
- Capsulectomy performed to clearly define osseous structures

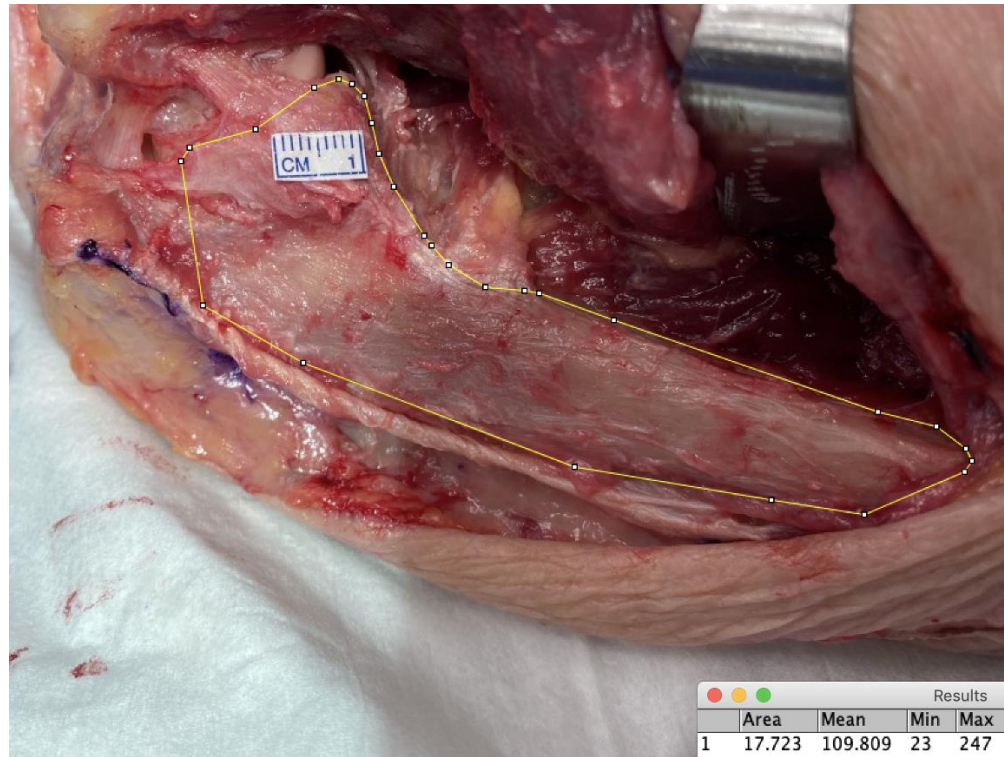


Methods

Access to key anatomic landmarks assessed

Calibrated image taken from best perspective

ImageJ (NIH) software used to calculate area of osseous exposure

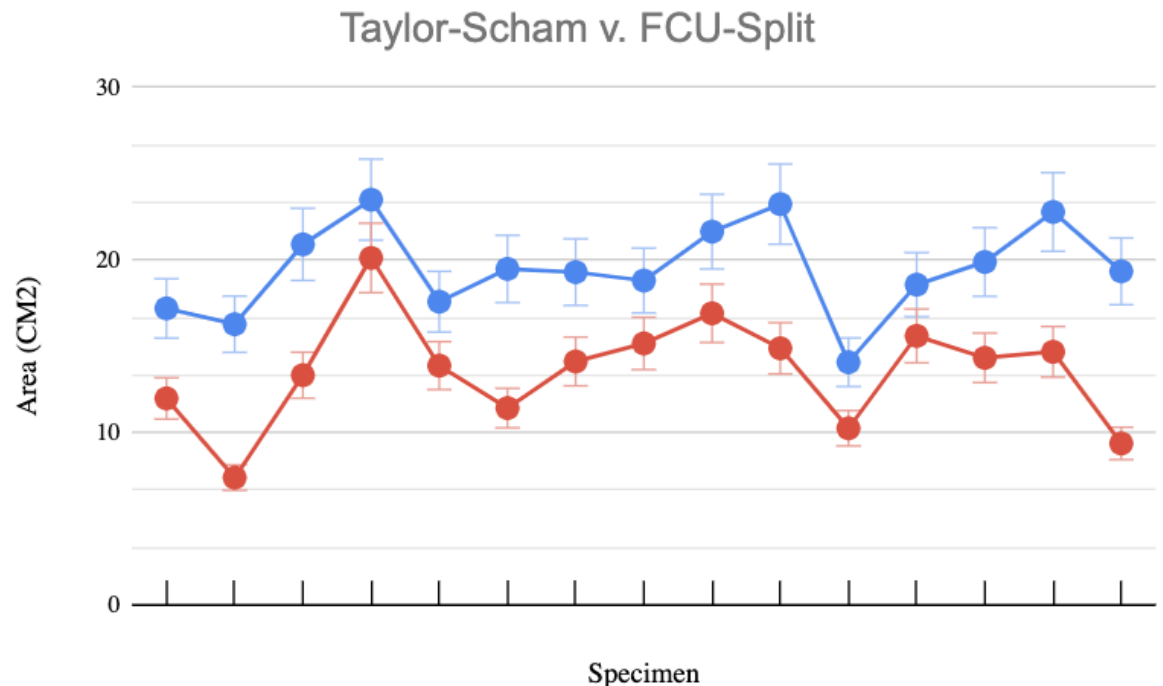


Results

All key anatomic landmarks were visualized using both approaches

Average area exposed:

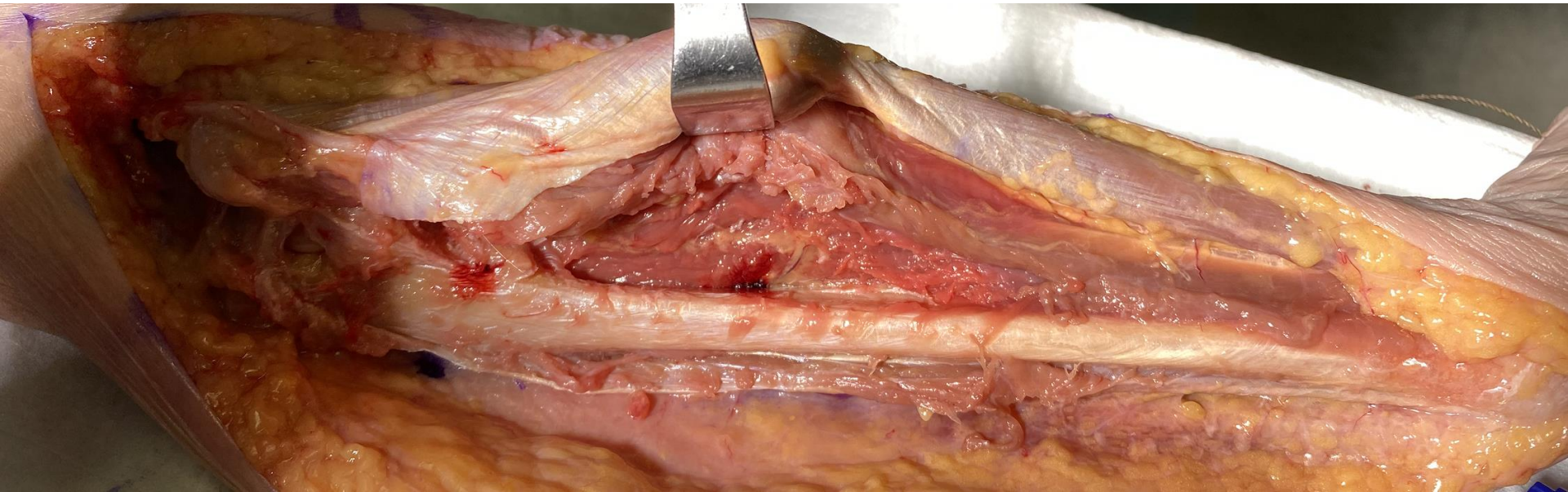
- FCU-Split: **13.6** cm² (range 7.4-20.1, SD 3.1)
- Taylor-Scham: **19.5** cm² (range 14.0-23.5, SD 2.6)
- $p < 0.05$



Results

Distal exposure of **FCU-Split** limited by ulnar nerve and its branches

Taylor-Scham allows for **distal extension** along length of ulna **without cross tensioning** of the ulnar nerve



Conclusion

The Taylor-Scham approach:

1. Provides a more extensive exposure to the medial structures of the elbow
2. Allows for distal extension