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Disclosures

“Nothing to disclose”
Introduction

Anconeus is classically described as a small, triangular muscle, which arises from the posterior surface of the lateral epicondyle of the humerus and passes obliquely to attach to the proximal posterolateral surface of the ulna (Standring, 2005).
Function

- Functionally, the anconeus muscle is reported as a weak accessory extensor to the triceps brachii.
Function

- Abduction of the ulna during pronation

(Ray et al., 1951 and Gleason et al., 1985)
Function

- Some have added that it contributes to the posterolateral stability of the elbow during forearm rotation.
Yet interestingly, recent studies have described the anconeus muscle as an option for a pedicled flap for covering soft tissue defects about the elbow, with reported minimal risk of morbidity (Hwang et al., 2004; Nishida et al., 2009; Schmidt et al., 1999).
Revisiting the anatomy and biomechanics of the anconeus muscle and its role in elbow stability
Barry P. Pereira (2012)
TWO FLAT COMPARTMENT IN ANCONEUS

- Superficial Surface or anterior compartment
- Deep Surface or posterior Compartment
The observation of the proximity and alignment of the anterior edge and its aponeurosis with the lateral collateral ligament supports the argument for the anterior compartment possibly providing a dynamic parallel constraint working in concert with the lateral collateral ligament over a range of elbow flexion angles.
In addition, it is interesting to also highlight that, together with the lateral collateral ligaments, the anconeus muscle might even contribute to maintaining the radial head to the ulna over a range of elbow flexion, also making it a humeroradial joint stabiliser.
Recent Study

Functional differences between anatomical regions of the anconeus muscle in humans.
Journal of Electromyography and Kinesiology
Volume 23, Issue 6, December 2013, Pages 1391–1397
Classified Anconeus Based on Fiber Orientations
<table>
<thead>
<tr>
<th>AT</th>
<th>AL</th>
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<tbody>
<tr>
<td>• Abduct the ulna</td>
<td>• Primarily act as elbow extensors</td>
</tr>
<tr>
<td>• Lateral Translation</td>
<td>• Provision of dynamic constraint to varus movements and posterolateral instability</td>
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Case Report
Discussion
Discussion

Lateral elbow pain caused by anconeus compartment syndrome A case report
Sven-Olof Abrahamsson, Christer Sollerman, Thor Soderberg, Goran Lundborg,
Therapy

Week 0-6:
- Splinting with elbow in 60 degrees of flexion and forearm in Supination for 4-6 weeks
- Avoid forceful gripping for 4-6 weeks
- Stretching of anconeus Muscle and Wrist extensors.

Week 7-8
- Eccentric and concentric Strengthening of the Wrist extensors and anconeus Muscle
Results

Grip Strength

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<thead>
<tr>
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<th>Admission</th>
<th>Discharge</th>
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<tbody>
<tr>
<td>Right Hand</td>
<td>40</td>
<td>25</td>
</tr>
<tr>
<td>Left Hand</td>
<td>35</td>
<td>30</td>
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</tbody>
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Results

Pinch Strength

Left Hand

Admission  Discharge
Results

Grip Strength in Elbow Extension

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Clinical Implication

The patient with Lateral Epicondylitis who is non-responding to the Conservative management should be looked carefully for any Anconeus Muscle involvement which is hindering the prognosis.
Thank you