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Kelsey Everhart  
*Cleveland Clinic*

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## ***Anconeus Epitrochlearis Muscle and Cubital Tunnel Syndrome in a High School Volleyball Player***

Kelsey Everhart, MS, ATC  
Cleveland Clinic

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### **OBJECTIVE**

To recognize the presence of the anconeus epitrochlearis muscle as a possible cause of cubital tunnel syndrome in athletes.

### **MEDICAL HISTORY**

16 year old right hand dominant female volleyball player presents with chronic right elbow pain that has been bothering her off and on for over a year. She also reports having numbness and tingling in her 4<sup>th</sup> and 5<sup>th</sup> fingers as well as a “clicking” and “snapping” sensation in her elbow. She was first referred to and seen by an Orthopedic Surgeon in September of 2019 where she was diagnosed with triceps insertional tendinitis. Was treated with Voltaren gel and physical therapy at that time. This only helped temporarily, and symptoms eventually worsened. She was seen again by same surgeon in May of 2020 at which time an MRI and EMG were ordered. MRI revealed “anomalous incontinence of the epitrochlearis muscle” and EMG showed no damage. Patient was then referred to a Hand Surgeon. The hand surgeon stated that although her MRI and EMG did not show any ulnar neuropathy her clinical symptoms are still causing her problems and are likely due to a dynamic compression of her ulnar nerve due to the presence of her anconeus epitrochlearis muscle. As for the clicking/snapping sensations, this is likely from a plica that is caught in the radiocapitellar joint. The plan would be to not only resect the epitrochlearis muscle but to also arthroscopically debride and remove the plica.

### **DIFFERENTIAL DIAGNOSIS**

Triceps Insertional Tendinitis; Osteochondral Lesion.

### **RELATED LITERATURE**

- Kim N, Stehr R, Matloub HS, Sanger JR. Anconeus Epitrochlearis Muscle Associated With Cubital Tunnel Syndrome: A Case Series. *Hand (N Y)*. 2019;14(4):477-482.
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### **TREATMENT**

Patient was treated surgically in July of 2020 with a right elbow arthroscopic synovectomy and debridement as well as a ulnar nerve decompression.

Had one occupational therapy visit post operatively and then was permitted to slowly return to volleyball under the guidance of her athletic trainers.

***DEVIATION FROM EXPECTED/UNIQUENESS***

This case was unique in that the athlete had ongoing pain due to the presence of the anconeus epitrochlearis muscle. The prevalence of this muscle is estimated to only be between 3% and 34% based on cadaveric and imaging studies.

***CONCLUSION***

After almost 2 years of having ongoing right elbow symptoms patient returned fully to volleyball with no restrictions in September of 2020. Patient was able to successfully compete in the entire volleyball season with no issues. Has also been playing club volleyball over the winter with no pain/issues.

***KEY WORDS:*** *Anconeus Epitrochlearis; Cubital Tunnel Syndrome*