

Case review : Flexor carpi radialis rupture due to repetitive golf swing

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Introduction

Flexor carpi radialis (FCR) muscle is located in the forearm anteriorly. The FCR muscle originates on the medial epicondyle of the humerus. It runs through a synovial fibro-osseous tunnel in the forearm and inserts on the base of the second and third metacarpal. The function of FCR muscle is to promote flexion of wrist and abduction of the wrists and the hands. The musculotendinous junction is thought to be the most common site of injury and Flexor tendon ruptures due to trauma without open wounds are quite rare. Therefore, we report a case of FCR rupture secondary to repetitive overuse injury.

CASE REPORT

A 55-year-old man, right-hand dominant, presented with right forearm pain and notable swelling that began 3 days ago while playing amateur golf. On the last day after playing golf for three days, he felt gradual pain and found edema on the volar-ulnar side of right forearm. On the 11-point verbal numeric scale, the severity of pain was 5. The pain was relieved by resting position. But, the pain was aggravated by pressing the site and wrist flexion. He was taking aspirin-containing blood pressure medication for hypertension. Clinical examination revealed focal tenderness and bruising over volar-ulnar region of the right forearm. Plain radiographs showed soft tissue edema from the medial side of right elbow to proximal forearm and no detectable fracture. Ultrasonographic exam showed multiple hypoechoic echo-texture lesion suspected of hematoma in the flexor muscle group of forearm. Definite diagnosis was done via magnetic resonance imaging. He was diagnosed with rupture of FCR tendon at proximal origin and strain of flexor digitorum superficialis & palmaris longus muscle. He received conservative treatment including compressive dressing and restriction of wrist range of motion for 3 weeks. We also recommended him to stop taking aspirin for 3 weeks. Two months later, the edema and bruises that were seen in his forearm were all gone and no tenderness was seen on physical examination. Ultrasound follow-up revealed slightly hypoechoic appearance that there was only trace of lesions suspected as previous injury. He no longer had any trouble with his daily life.

Conclusion

We demonstrate that the FCR rupture secondary to repetitive golf swing for 3 days is possible and should be considered in the differential diagnosis of pain and swelling on the flexor surface of the wrist and forearm.

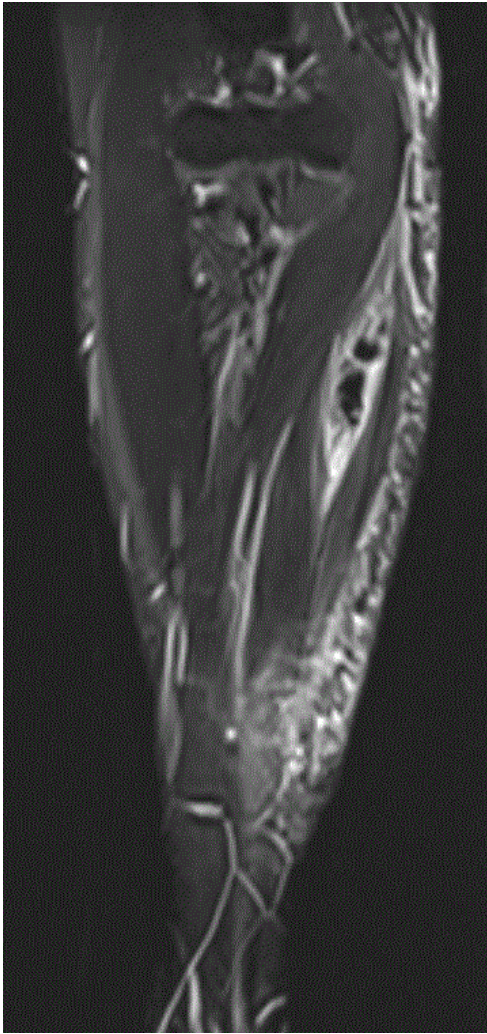


Fig 1. Coronal section of T2 MRI right forearm : Suspected rupture of flexor carpi radialis(FCR) tendon in seen with edematous change in subcutaneous tissue at posteromedial side of right elbow

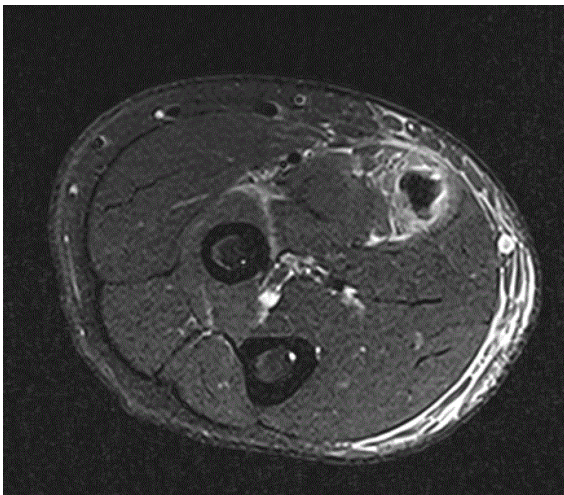


Fig 2. Axial section of T2 MRI right forearm : Like the Fig.1, FCR tendon rupture was seen at proximal origin

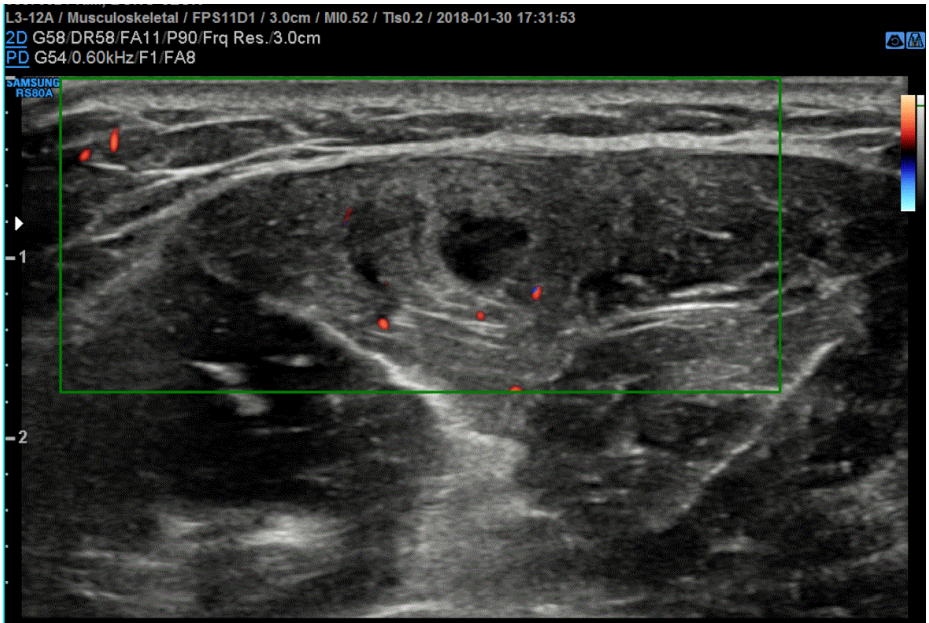


Fig 3. Trasverse view of right forearm of ultrasonograhic exam : This show multiple hypoechoic echo-texture lesion suspected of hematoma in the flexor muscle group of forearm