

Left Distal Biceps Tendon Avulsion

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ABSTRACT

CASE HISTORY: Patient is a 31-year-old male who presented himself with a left distal biceps tendon rupture. Patient incurred the injury while performing a deadlifting exercise. **PHYSICAL EXAM:** Focused examination demonstrated intact skin, the absence of distal biceps, and a noticeable bulge in the upper part of the arm – “Popeye” sign. Swelling was apparent with a gap in the anterior portion of the elbow due to the absence of the tendon. Clinical screening revealed a positive hook test, and limited range of motion (ROM) (i.e., elbow flexion, and pronation and supination of the forearm). **DIFFERENTIAL DIAGNOSES:** Impingement syndrome; Rotator cuff disease; Shoulder dislocation/instability; Humeral/radial head fracture. **TESTS & RESULTS:** Patient had an MRI of the left elbow performed that revealed a full distal biceps tendon rupture. **FINAL DIAGNOSIS:** Complete left distal biceps tendon avulsion. **DISCUSSION:** Full distal biceps tendon ruptures can be preceded by tendon degeneration and later, tendinopathy. It is not uncommon for a patient to experience biceps tendinitis as well. These pathologies can lead to insufficient blood supply which further potentiates tendon avulsion. With that said, placing a sudden eccentric load on the flexed and supinated forearm will cause a tendon to rupture fully. There are several factors such as age, overuse, and smoking that can also attribute to a tendon rupture. Although surgery is not necessary, it is recommended to regain full function and aesthetic to the arm (i.e., muscle not retracted into the shoulder). **OUTCOME OF THE CASE:** Patient underwent full tendon repair surgery using the anatomic approach. In this case, the surgical method involved the double incision technique. Using a transverse incision in the antecubital fossa the retracted tendon was resected, and two locking sutures were passed through the distal part of the tendon. Exposing the tuberosity with a muscle splitting technique the biceps tendon was pulled into the bicipital tuberosity, and the sutures were pulled tight then tied. Following surgery, the patient was subjected to wearing a sling for a few weeks. Ibuprofen, Oxycodone, and Meloxicam were prescribed for inflammation, pain, and prevention of heterotopic ossification, respectively. Physical therapy (PT) was prescribed one-month following surgery. PT included the following modalities, Russian estim for muscle re-education, ultrasound to improve tissue healing, intermittent icing to control swelling, voodoo floss banding to improve active ROM, isometric holds with a light load for strengthening of the tendon, occlusion training to rebuild strength, and Kinesio tape for muscle contraction improvement. **RETURN TO ACTIVITY AND FURTHER FOLLOW-UP:** Three months post-surgery the patient was able to return to activity at his discretion while maintaining a conservative approach. Six months post-surgery the patient was back to his normal activities, despite still having some weakness and slight discomfort in the injured area.