

CASE REPORT

DISTAL TRICEPS AVULSION: A CASE REPORT

K. Ramkumar Reddy¹, R. Jaisingh², J. Venkateswarlu³, T. Koneru Rao⁴, T. Venkateswar Rao⁵

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ABSTRACT: Triceps rupture is an uncommon injury. Fracture of olecranon or a dislocation/ fracture is most often common injury for similar mechanism of fall. It is commonly associated with anabolic steroid use, weight lifting, and direct laceration. Risk factors include local steroid injection, olecranon bursitis, and hyperparathyroidism. Distal triceps rupture is usually caused by a fall on an outstretched hand. Eccentric loading of a contracting triceps has been implicated. Initial diagnosis may be difficult because a palpable defect is not always present. Pain and swelling may limit the ability to evaluate strength and elbow range of motion. Although plain radiographs are helpful in ruling out other elbow pathology, MRI is used to confirm the diagnosis, classify the injury, and plan management. Incomplete tears with active elbow extension against resistance are managed non-surgically. Surgical repair is indicated in active persons with complete tears and for incomplete tears with concomitant loss of strength. Good to excellent results have been reported with surgical repair in triceps, even for chronic tears. **BACKGROUND:** Distal triceps tendon avulsions occur very infrequently, and the diagnosis is often missed when the injury is acute. The literature provides little guidance regarding treatment or the outcome of these injuries. The goal of this report was to report our experience with the diagnosis, timing and technique of surgical treatment, and outcome of treatment of distal triceps tendon rupture.

KEYWORDS: Triceps avulsion, Krakow, fibre wire.

INTRODUCTION: Triceps tendon avulsion may be overlooked during an evaluation of injuries. Partridge documented the first case of avulsion of the triceps tendon. Avulsion or rupture of the triceps tendon has been described as "the least common of all tendon injuries."^[1] Mayo Clinic analysis of 1014 cases of muscle and tendon injuries reported that only 8 cases involved the triceps tendon.^[2]

CASE DETAILS: We present a case of triceps tendon avulsion which was missed initially as the injury alleged was trivial as he slipped on to bathroom wall with elbow semi-flexed after which he continued routine work. Careful physical examination and evaluation of the X-rays clinched the diagnosis. The patient was treated trans-osseous suture fixation using fibre wire (Arthrex) by Krakow method. The end result was a good range of movement and a power equal to the uninjured side. A high index of suspicion, physical examination seeking a palpable gap,^[3] absence of elbow extension against gravity or resistance will help the diagnosis and 'bone flake' on x-ray was absent in this case. Early recognition of these injuries and prompt intervention are the cornerstones of a successful outcome. A second examination after a few days, when the swelling has reduced, should be the standard in doubtful cases or during any unclear joint injury. We suggest a primary repair through a transosseous suture technique using Krakow method for optimal results.^[4]

DISCUSSION: This injury is most likely to happen in young people as sports-related trauma. Laboratory investigations are non-contributory. Good clinical examination and suspicion of this condition aid in early diagnosis. Surgical results are fairly satisfactory.

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The patient's return to contact sports should be restricted until maximal motion and extension strength are achieved, usually after 6 months. Patients should perform active resistive strengthening to achieve equal strength in the triceps for 3-6 months after surgery.^[5]

CONCLUSION: although the injury is not uncommon, it is commonly when missed due to its subtlety. It is suggested that the lesion may be more common than previously thought and the importance is of having diagnostic awareness of this injury.

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Figure 1



Figure 2



Figure 3



Figure 4

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AUTHORS:

1. K. Ramkumar Reddy
2. R. Jaisingh
3. J. Venkateswarlu
4. T. Koneru Rao
5. T. Venkateswar Rao

PARTICULARS OF CONTRIBUTORS:

1. Associate Professor, Department of Orthopaedics, Kakateya Medical College, Warangal.
2. Assistant Professor, Department of Orthopaedics, Kakateya Medical College, Warangal.

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3. Associate Professor, Department of Orthopaedics, Kakateya Medical College, Warangal.
4. Assistant Professor, Department of Orthopaedics, Kakateya Medical College, Warangal.
5. Professor, Department of Orthopaedics, Kakateya Medical College, Warangal.

NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:

Dr. K. Ramkumar Reddy,
6-2-337, Opp. Vijaya Talkies,
Hanamkonda, Warangal, Telangana.
E-mail: krkreddy2009@gmail.com

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