



Surgical Reduction of Neglected Posterior Dislocation of Elbow in Children

Dr.Sarfaraz Iftekhara¹, Dr.Ranjodh Singh²,Dr.(Prof.)J.N.Pal³,Dr.Animesh Kumar Singh⁴,Dr. Sushant Srivastava⁵

^{1,2}Junior Resident,³ Professor and HOD, ⁴Associate Professor, ⁵Assistant Professor
Department of Orthopaedics, MGM Medical College, Kishanganj, Bihar.

Submitted: 17-01-2023

Accepted: 31-01-2023

I. INTRODUCTION

Dislocation of elbow is rare in children.^[1] When occurs, it is usually around early adolescence.^[2] The developing and underdeveloped countries are places where neglected elbow dislocations are common^[3]. The main reason for this delay in diagnosis is that these patients initially seek treatment from traditional healers or think it will heal on its own. Such actions immobilize the elbow in extension, which then leads to the eventual retraction of the triceps muscle and collateral ligaments. We present a case of neglected posterior elbow dislocation that presented to our OPD one month after injury.

II. CASE REPORT

A 8 year old female child presented with complaint of deformity over right elbow joint. She had the inability to fully flex the elbow, after sustaining fall on outstretched hand with elbow being in certain degree of flexion 1 month back while playing. After receiving treatment from indigenous bone setters, she came with her parents to our OPD after 30 days. Patient was examined and she had restricted range of movements and flexion was not possible beyond 60 degrees, with no tenderness and neurovascular deficit. 3 bony point relationship was not maintained. X- Rays of Both Elbow joint in Anteroposterior and Lateral view was done, X- rays were suggestive of neglected Posterior dislocation of Right Elbow (Fig 2). Patient was managed surgically by Open reduction with Speed V-Y plasty of triceps and Percutaneous fixation with K- wire (Fig 3) with above elbow slab application.

Surgical procedure

Patient was positioned in left lateral decubitus position and scrubbed, painted and draped. Incision was made over the posterior aspect of the elbow, beginning in the midline 10 cm proximal to the olecranon. Edges of the wound

were undermined and retracted and tendinous insertion or aponeurosis of the triceps muscle on the posterior aspect of the elbow were exposed. Ulnar nerve was identified and dissected up from its bed. Aponeurosis of the triceps was reflected distally to form a flap of tissue attached to the olecranon. Subperiosteally, all muscle attachments from the distal humerus was freed both anteriorly and posteriorly and then the attachments of the joint capsule and collateral ligaments around the condyles of the humerus was released and lower end of the humerus is completely mobilized. All callus along with any scar tissue removed. After completely freeing the distal humerus, radial head exposed and the trochlear notch of the ulna cleared. Forearm was rotated and gently pressed on the anterior surface of the capitellum, bringing the radial head anteriorly into its normal position. After the radial head had been reduced, the coronoid process was slipped distally and then anteriorly over the trochlea and the reduction was repeated. Full range of motion was carried through the elbow joint. Elbow was found to be unstable and then the olecranon was transfixed to the humerus with two small Kirschner wires with the elbow at 90 degrees. Periosteum and the triceps was sutured over the posterior surface of the humerus and the fascia over the radial head and then suturing the tongue of the triceps aponeurosis at a slightly more distal level. Wound was sutured layerwise with a suction drain.

Subsequent treatment

Patients percutaneous K wire removed after three weeks and ROM exercises of Right elbow joint started and Rehabilitation protocol was followed. (Fig 4)

III. RESULTS

Patient was followed up for 6 months. There was gradual but progressive full range of movement



(Flexion , Extension, Pronation & Supination) was achieved at final follow up.

IV. CONCLUSION

Early intervention by surgical reduction by Speed V-Y Plasty of triceps, triceps contracture can be avoided and full range of movement can be achieved. Our case is unique as it is of a paediatric posterior elbow dislocation.

REFERENCES

- [1]. Introduction to Elbow dislocation and medial epicondylar Humerus fracture page

652, Rockwood and Wilkins Fracture in children, 8th Edition.

- [2]. Old unreduced dislocation, Page No. 3266, Campbell's Operative Orthopaedics, 14th Edition .

- [3]. Innocent, M.K., Jean-Eric, K.K., Blaise, Y.L., Achie, A.R., Léopold, S.B.J., Natacha, K.A., Leopold, K.K. and Kodo, M. (2022) Treatment of Neglected Elbow Dislocations by Z-Lengthening of the Triceps Brachii. Open Journal of Orthopedics, **12**, 142-152.

Photos

Triceps stands out(Fig 1).



Fig 2



Fig 3



Fig 4