

# Neglected Posterolateral Dislocation Of Elbow With Neurodeficit: A Case Report

Dr Shrut Vasavada<sup>1\*</sup>, Dr Nitin Samal<sup>2</sup>, Dr Shounak Taywade<sup>3</sup>, Dr Devank Lohiya<sup>4</sup>, Dr Parth Shah<sup>5</sup>, Dr Kuldeep Chhatbaar<sup>6</sup>

<sup>\*1</sup>Post Graduate Resident, Department of Orthopedics, Jawaharlal Nehru Medical College, Datta Meghe Institute of Medical Sciences and Research (Deemed to be university), Maharashtra, India

<sup>2</sup>Professor, Department of Orthopedics, Jawaharlal Nehru Medical College, Datta Meghe Institute of Medical Sciences and Research (Deemed to be university), Maharashtra, India

<sup>3,4,5,6</sup>Post Graduate Resident, Department of Orthopedics, Jawaharlal Nehru Medical College, Datta Meghe Institute of Medical Sciences and Research (Deemed to be university), Maharashtra, India

\*Corresponding Author: -Dr Shrut Vasavada

<sup>\*</sup>Post Graduate Resident, Department of Orthopedics, Jawaharlal Nehru Medical College, Datta Meghe Institute of Medical Sciences and Research (Deemed to be university), Maharashtra, India

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## Abstract

"Neglected posterior dislocation of the elbow" is described as an untreated traumatic posterior dislocation of the elbow joint that has been untreated for 3 weeks or more. Around 90% of these are of the posterolateral variety. In emerging and underdeveloped countries, these are far more widespread. Patients report with a distorted, stiff, and painful elbow that makes it difficult to perform daily activities. The clinical presentation resembles that of a malunited supracondylar elbow fracture. Radiography is generally used to confirm the diagnosis. Before undergoing surgery, a CT or MRI scan is recommended to provide extra information. Because of the severe soft tissue contractures, ligamentous insufficiencies, and fibrosis, as well as the possibility of accompanying nerve injuries, myositis ossificans, non-compliant patients, and the necessity for long-term postoperative physiotherapy, treatment is difficult. The goal of surgical treatment is for the elbow to be painless, stable, and flexible, with a congruent joint space. We reported a case of 55-year-old woman presented to the Acharya Vinoba Bhave Rural Hospital (AVBRH) with complaints of inability to flex the elbow, inability to make a fist, and tingling feelings in all five fingers on the left side, which had been bothering her for two months.

**Keywords:** Dislocation, Elbow, Neglected Posterolateral Dislocation

## INTRODUCTION

Dislocations that go unnoticed are widespread in poor countries like India. Although any joint in the body can be displaced, the majority of dislocations occur at certain areas. The shoulder and elbow joints are the most usually dislocated. It should be treated as a medical emergency, with the dislocated joint being reduced as soon as feasible. The posterior elbow dislocation accounts for 90% of all elbow dislocations in India [1]. The most common joint dislocation seen in children is the elbow joint dislocation. It is only second to shoulder dislocation in the adult population [2]. A neglected posterior dislocation of the elbow is described as a posterior dislocation of the elbow joint that has gone untreated for three weeks or more [3]. In undeveloped and underdeveloped countries, such presentations are far more common. Low education, low socioeconomic status, a lack of knowledge of the seriousness of the injury, a delay in seeking treatment, unethical actions by unqualified practitioners, and a lack of conveniently accessible specialized services are all possible explanations[4]. The elbow is distorted on presentation, either in extension or minimal flexion, with a limited range of motion, making it difficult to perform daily activities [5, 6].

Due to many circumstances such as poverty, lack of education, seeking indigineous remedies, and ignorance, there is a delay in the initial fast treatment in India and many other developing countries like ours, which sometimes leads to disastrous effects. There is a need to raise awareness and provide accessible primary health care across the country. For the treatment of neglected posterior elbow dislocations, there are a variety of options. Arthrodesis, closed reduction, open reduction, excisional arthroplasty, interpositional arthroplasty [6]. The aim of this study is to assess the functional outcome after correction.

## CASE REPORT

A-55-year-old woman presented to the Acharya Vinoba Bhave Rural Hospital (AVBRH) with complaints of inability to flex the elbow, inability to make a fist, and tingling feelings in all five fingers on the left side, which had been bothering her for two months. Patient claims to have slipped and fallen from a bike on a flexed elbow two months earlier in a brick factory near Deshpur village in Gadchiroli district around 4 p.m. The patient's complaints appeared immediately after the occurrence, and the symptoms were progressive in character. There was no history of loss of consciousness or any other signs that pointed to a possible head injury from the patient. After receiving indigineous treatment in his community, the patient was sent to the AVBRH for additional evaluation and management.

The arm was discovered to be stuck in extension during a physical examination of the left upper limb. There were no aberrant scars or dilated veins apparent. There was significant forearm muscle wasting, as well as thenar and hypothenar wasting. Over the left elbow, there was a lot of discomfort. The link between the three bony points was not maintained. Because the arm was immobilised in extension, no elbow range of motion could be elicited.

There was no ROM in the hands. Abduction, adduction, flexion, and extension of the fingers were all feeble. The bending of the PIP and DIP fingers was poor. There were no actions identified in the abductor pollicis brevis, adductor pollicis brevis, and flexor pollicis brevis. There was no resistance from the fingers. Sensory hypoesthesia in the radial and ulnar nerve autonomous zones.

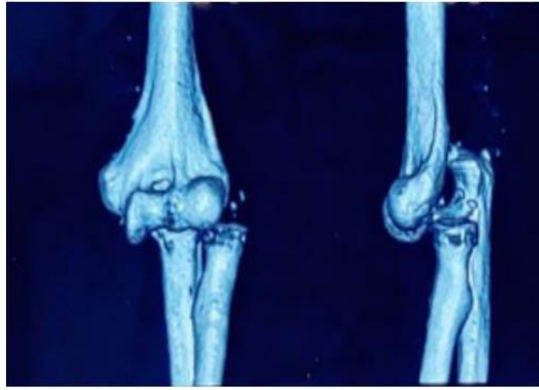
Radiographs in their most basic form The anterior, posterior, and lateral images of the left elbow revealed a posterolateral elbow dislocation. A CT scan of the left elbow with 3D reconstruction revealed a posterolateral dislocation of the joint with fracture fragments in the joint cavity.

## PRE OP PHOTO

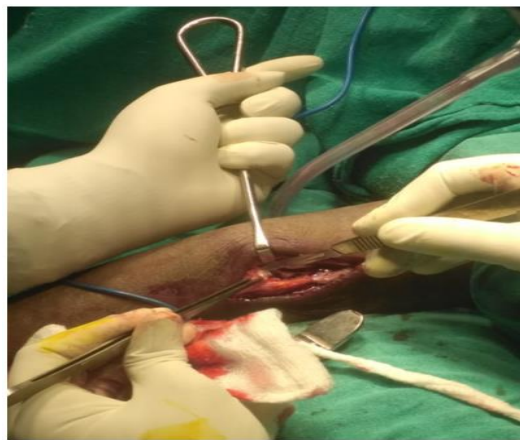


## POST OP X RAYS





**CLINICAL PICTURES**  
Intra Operative



## PROCEDURE

To expose the joint, a lateral Kocher's approach is used and a medial incision of about 3" is made along the medial epicondyle. Capsules that have thickened, fibrous adhesions, and bone blocks have been removed. After reduction, K wire was inserted and a slab was placed above the elbow.

## DISCUSSION

Because of a lack of understanding and access to competent medical care, elbow dislocation is frequent in underdeveloped nations like ours [7]. It should be treated as an emergency and handled by a trauma team with specialised training. In this example, the patient was first treated by a local bonesetter in his hometown. Stiffness and finally a permanent extension deformity resulted from the arm being fixed in extension. Soft tissue contractures develop three weeks after the accident, making closed reduction by traction unfeasible. For dislocations lasting more than three months, most writers propose open reduction followed by excisional arthroplasty, arthrodesis, or total elbow arthroplasty. Some surgeons recommend open reduction for up to two to four years. In a country like ours, it is extremely difficult for people to afford expensive surgical operations like elbow prosthesis. Excisional Arthroplasty is a less expensive option, but it leaves the elbow in a vulnerable state. There has recently been interest in using a hinged external fixator to gradually diminish these cases, however this comes at a higher cost and with more morbidity. As a result, it's safe to assume that open reduction is a viable option in similar circumstances. Speed (1925) developed the V-Y technique for triceps lengthening to decrease elderly elbow dislocations [8]. This method, which involves V-Y plasty and K-wire fixation 2-4 weeks after surgery, as well as vigorous rehabilitation, has been used often. The operational strategy in our case was a lateral Kocher's approach and a medial approach with incision along the medial epicondyle. In a study of 15 children with untreated posterior dislocations of the elbow, Fowles et al. [9] discovered that if they were examined within two months of the injury, they might regain functional elbow mobility without surgery, and they suggested a short trial of conservative therapy in such situations. Most authorities, however, recommend open reduction for elbow dislocations that occur more than three months after the initial trauma. Because changes in the articular surfaces develop when a dislocation is left untreated for 6–12 months, surgical reduction is not recommended after 3 months.

In their study, Mahaisavariya and Laupattarakasem [10] advocated open reduction without triceps lengthening to improve elbow flexion after a dislocation that had been left unreduced for 1–3 months. In a separate study, the same authors conducted triceps lengthening and collateral ligament repair in 22 of 24 cases of elbow dislocation that had been left unreduced for 1–60 months [11]. In all six cases, we performed triceps lengthening, and we agree with Mehta et al. [12] that open reduction with triceps lengthening but no collateral ligament repair avoids unduly tight joint reduction and undue pressure on the already compromised joint cartilage; the older the dislocation, the more triceps lengthening is required.

## CONCLUSION

Dislocations that go unnoticed are a reality in our country. Despite the difficult surgical therapy, functional improvement and restoration are remarkable. The advantages of a midline paratricipital posterior approach are numerous, and in most cases, reduction can be achieved without the utilisation of the triceps splitting method. Even without mending the collateral ligaments, the decreased joint is stable; fixation is required for two or three weeks; if possible, an external fixation can be employed instead to allow for early mobilisation. Resection arthroplasty is mainly reserved for cases of substantial joint deterioration and failure of elbow reduction, resulting in stiffness that renders the arm nonfunctional.

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