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Case Series

# Case Summary A case of Compound Comminuted Fracture around Right Elbow

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20 years old male patient came with the alleged history of Sports Injury while playing foot ball leading to fall over the right elbow.

Patient c/o pain, swelling and bleeding from the right elbow associated with deformity. Patient was unable to move right elbow with painful restriction of all elbow movements.

Patient was given primary treatment at the spot of injury by CLW suturing done over the bleeding wound, above elbow POP slab was given and referred to Tertiary Centre Hospital for further management.

On examination in casualty, pt had COMPOUND GRADE 2B external injury with profuse bleeding from the sutured wound present over the posterior aspect of the right elbow. Distal neurovascularity was checked and Right Radial Artery was not palpable with Ulnar nerve sensations Diminished . Fresh ABOVE ELBOW POP slab given in less flexion when Radial Pulse returned, I.V.antibiotics was started and pt shifted immediately in the O.T. wound for debridement

X rays on arrival at Hospital

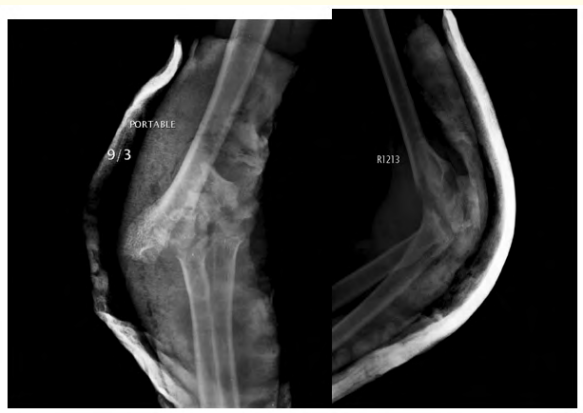


**Figure 1**

In the O.T. Wound checked. Sutures removed, all dirt and debris removed with thorough NS+BETADINE+HYDROGEN PEROXIDE wash. PORTABLE x-rays were taken in the O.T. with right elbow in full extension and longitudinal traction. patient had GRADE 13-C3 AO classification DISTAL HUMERUS,COMPLETE ARTICULAR MULTIFRAGMENTARY FRACTURE WITH METAPHYSEAL WEDGE FRAGMENTATION The particular region had Fractures in Saggital as well as Coronal planes. Stay sutures taken and planned for definite surgery after 2 days.

Wound after Debridement

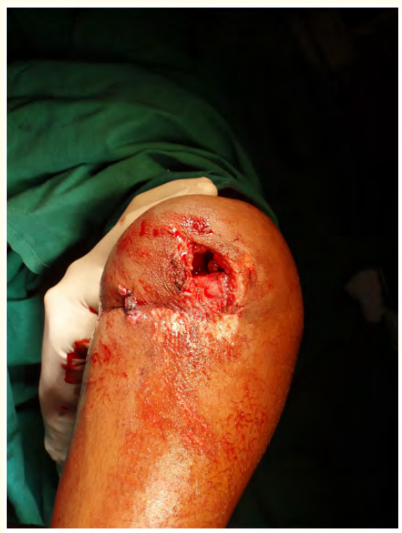

**Figure 2**

Portable X rays in OT at the time of Debridement with traction. (Figure 3)

On the day of surgery, all the implants and instruments were kept ready the previous day. Lateral position was given. Right elbow supported with lateral support, which was essential for ex-

posure and for the ease of taking intra-op images. Wound incised. Fracture configuration noted. Olecranon osteotomy was not required since patient was already having olecranon fracture, which was displaced proximally. Fracture fragments were fixed with multiple k-wires.

2 different plate configuration system were available

1. Parallel plating and
2. Perpendicular plating

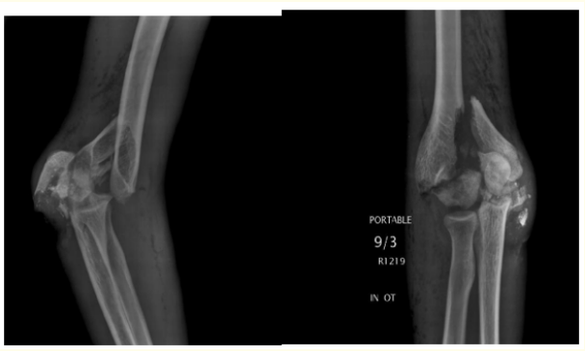


**Figure 3**

## Exposure

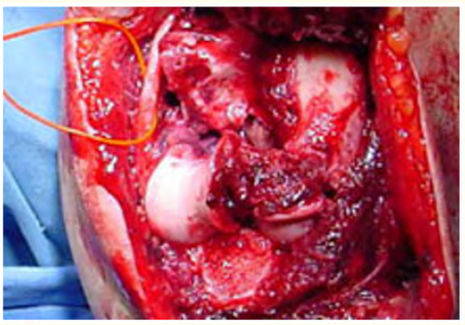

**Figure 4**

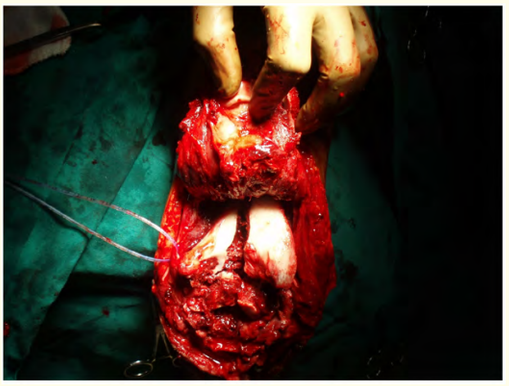

**Figure 5**

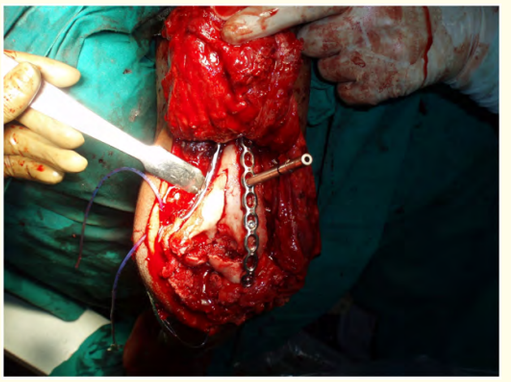

**Figure 6**

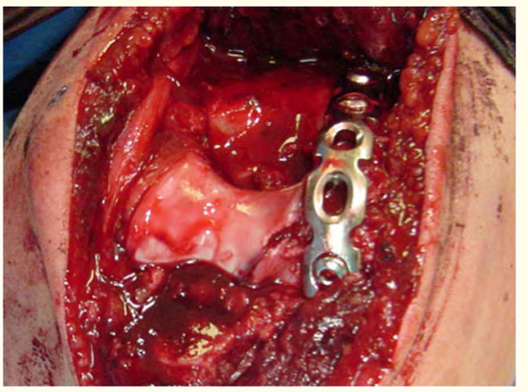

**Figure 7**

Perpendicular plating system used. Medial column fixed first with pre- contoured locking plate. Then k-wires used as joystick to manoeuvre articular fragment and fixed with pericortical interfragmentary screws. Lateral column fixed with Recon locking plate. Olecranon reattached to the shaft of the ulna with tension band wire system. Wound closed and Ulnar nerve was left in the same position (not Transposed) and POP slab given.

Immediate Post Op X Rays.

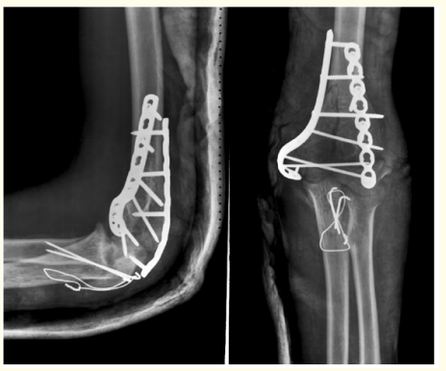

**Figure 8**

Status of wound at 48 hrs Dressing

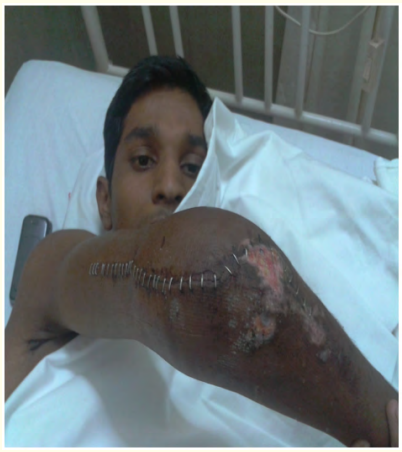

**Figure 9**

Elbow range of movement exercises started in the plaster Slab which was broken at elbow purposely. Regular dressing done. Now patient is comfortable and doing exercises regularly as taught.

After 4 weeks of Mobilization in Broken slab pt was without any support.

X rays after 4 weeks

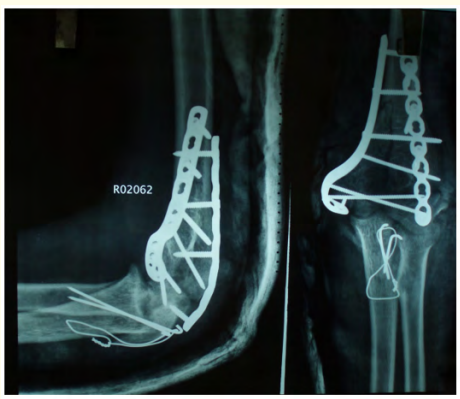


**Figure 10**

After 6 weeks patient has 80 % of the Range of Movements of the Elbow & Ulnar nerve is fully recovered.

Pictures showing Range of Movements

(Figure 11,12)

**Figure 11**

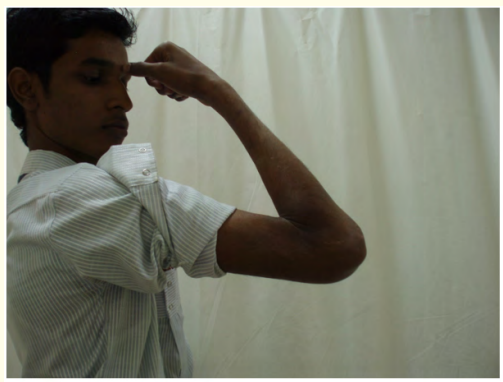

**Figure 12**

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