



Case Report

Monteggia Type Variant Fracture Fixation by Using Herbert Screw

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ABSTRACT

Background: To analyse the efficacy and efficiency of the over the top hotchkiss approach for a new variant of monteggia fracture fixation using herbert screw.

Objectives: to achieve definitive fixation by –

1. fixing radial shaft
2. stabilising elbow joint

Materials and methods: To access the forearm region using thompson approach

- The incision from anterior and distal to lateral epicondyle of humerus to distal and ulnar to lister's tubercle
- The interval between extensor digitorum communis and extensor carpi radialis brevis
- To access the elbow region using over the top hotchkiss approach
- The interval that splits the flexor pronator mass and elevates anterior part (pronator teres, palmaris longus, flexor carpi radialis, palmaris longus along with brachialis) from the anterior elbow capsule.

Results: The fracture fragment involved is not a part of the o'driscoll classification

- Hence this case is a new variant of monteggia fracture
- The movement at the elbow joint has been restored and the patient is not having any major complaint
- The functional outcome of the procedure has aided the enhancement of the quality of life of the patient

Conclusion: The over the top hotchkiss approach for the fixation of fracture in this case, is a very efficient and efficacious fixation technique for the clinical, radiological and functional betterment and outcome for the patient

Keywords: over the top hotchkiss approach, monteggia variant.

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INTRODUCTION

- 30 year old male patient
- History of road traffic accident
- C/o left elbow pain forearm pain and open wound over 3rd finger
- On xray : left elbow dislocation and radius shaft fracture
- 3rd finger interphalangeal joint dislocation

PRE OP X RAYS AND CT SCAN







AIMS AND OBJECTIVES

To give primary management by reduction and application of slab for support

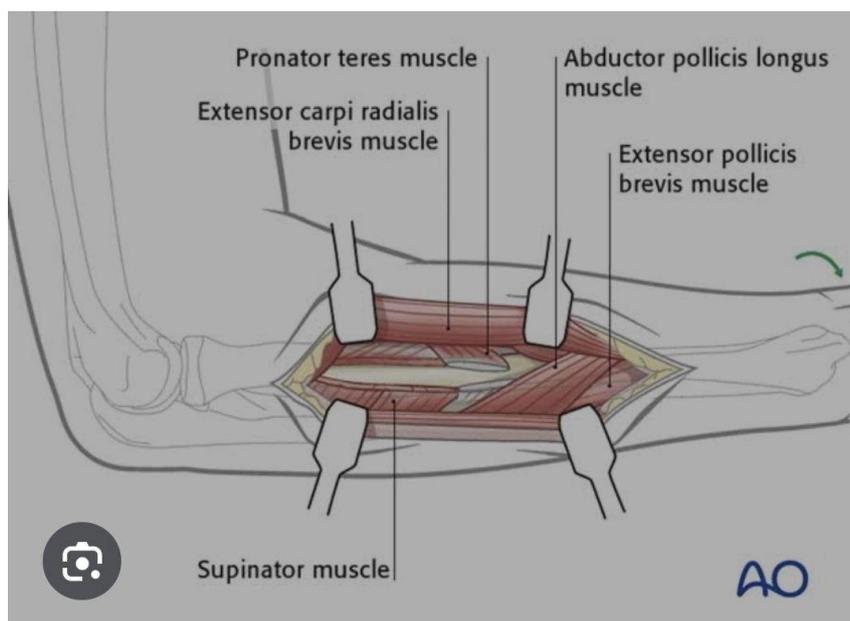
To achieve definitive fixation by –

1. Fixing radial shaft
2. Stabilising elbow joint

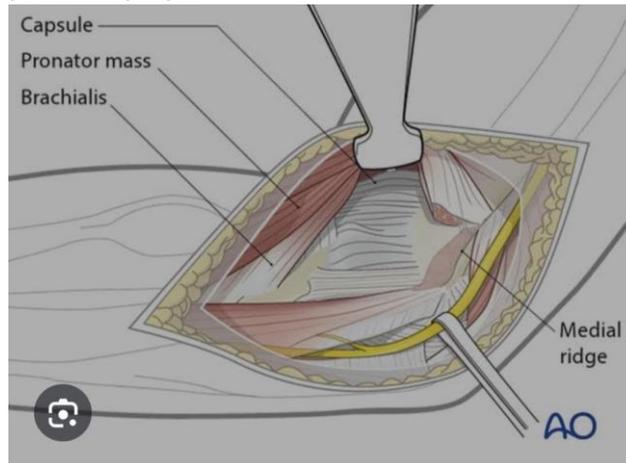
METHODS AND PROCEDURE

- To access the forearm region using thompson approach
- The incision from anterior and distal to lateral epicondyle of humerus to distal and ulnar to lister's tubercle
- The interval between extensor digitorumcommunis and extensor carpi radialisbrevis
- To access the elbow region using over the top hotchkiss approach
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THOMPSON APPROACH



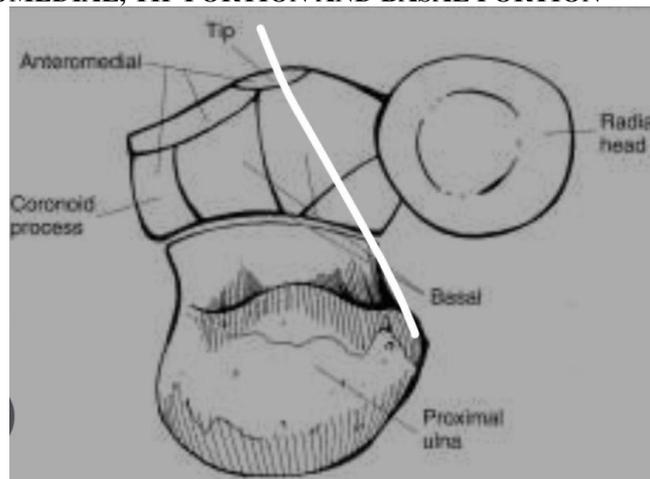
HOTCHKISS OVER THE TOP APPROACH



INTRA OPERATIVE

1. Radius shaft fixed – no stability
2. Fragment involved – anterolateral fragment involved with tip of coronoid
3. Fracture fragment identified – fix with herbert screw
4. After fixation of elbow joint
5. No need of collateral ligament fixation

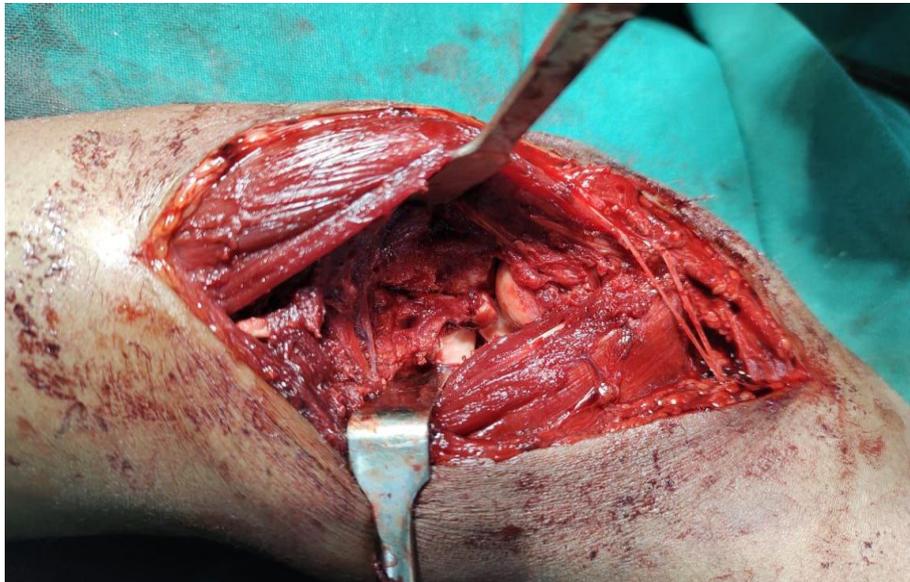
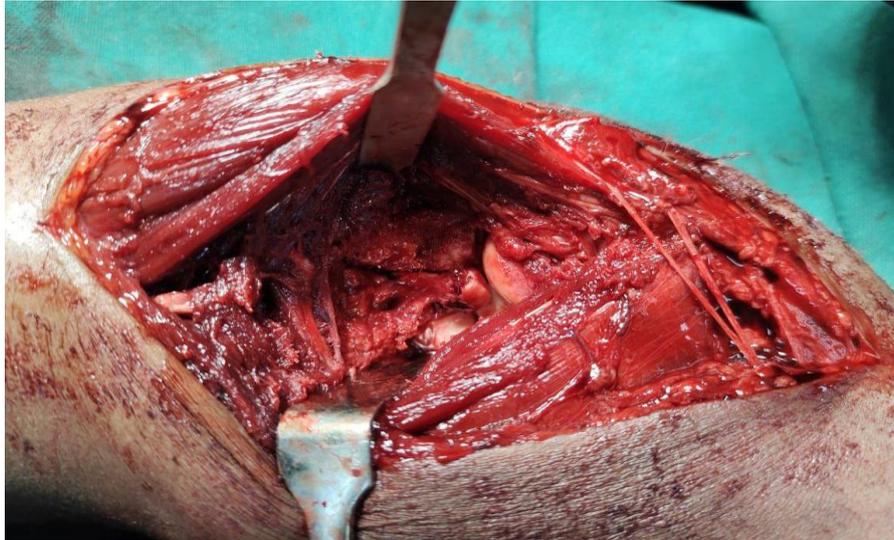
25 PERCENT OF ANTEROMEDIAL, TIP PORTION AND BASAL PORTION



O'DRISCOLL CLASSIFICATION

O'Driscoll Coronoid Fracture Classification		
Fracture	Subtype	Description
Tip	1	≤2 mm of coronoid height
	2	>2 mm of coronoid height
Anteromedial	1	Anteromedial rim
	2	Anteromedial rim and tip
	3	Anteromedial rim and sublime tubercle (± tip)
Basal	1	Coronoid body and base
	2	Transolecranon basal coronoid fracture

INTRA OPERATIVE PICTURES





CONCLUSION

The over the top hotchkiss approach for the fixation of fracture in this case, is a very efficient and efficacious fixation technique for the clinical, radiological and functional betterment and outcome for the patient.

RESULTS AND DISCUSSION

- The fracture fragment involved is not a part of the o'driscoll classification
- Hence this case is a new variant of monteggia fracture
- The movement at the elbow joint has been restored and the patient is not having any major complaint
- The functional outcome of the procedure has aided the enhancement of the quality of life of the patient

POST OPERATIVE X RAY

