



## EARLY EXCISION OF COMMINUTED HEAD RADIUS FRACTURE

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Article Received on 01/04/2019

Article Revised on 23/04/2019

Article Accepted on 13/05/2019

### ABSTRACT

A comminuted (Mason type-III) fracture of the radial head is best treated by excision when an anatomical reconstruction is not possible.<sup>[1]</sup> 10 patient had early excision of head radius with 2 week after injury the average age of patient 32 years the incidence of fracture head about 2.5per 10000 thousand postoperative 9 from 10 about 90% had excellent result after early excision movement range after early excision was 55<sup>0</sup> flexion 40<sup>0</sup> extension 60<sup>0</sup> supination 50<sup>0</sup> pronation up ward Migration of radius 2mm.

**KEYWORDS:** Head radus, saw.

### INTRODUCTION

Radial head are cross bond to 2 joint radio humeral joint and proximal radio ulnar joint the radial head moves in both flexion and extension as well as with for arm sup nation and pronation radial head intra articular ligament injury at elbow and forearms assault with radial head fracture.<sup>[2,3]</sup> The decision to excised or internal fixation of radial head fracture is influence by the presence of concomitant injury and degree of severity.<sup>[4]</sup>

### PATIENTS AND METHODS

Since October 2007 to July 2010 patients with mason typeIII 10 patients with mason typeIII were treated by resection of radial head in the Alramide teaching hospital. postoperative pain at the elbow and wrist at rest on movement and at work; fatigue ,par aesthesia and grip strength and work and recreation including any changes due to elbow condition in 10 patients comparative anteroposterior and lateral xray of both wrists and both elbow the dominant limb was injured in 7 patients(70%)(3)non dominant limb 30% the average age was 40 years Post operation back slab splint at 90<sup>0</sup> for elbow after 3 weeks splint is removed and the forearm is supported in asling active exercise are begun 8male 2 female. During follow up to 1 years by ann and morrey.<sup>[1]</sup>

- 1- Motion elbow and forearms compared this with other non injured limb
- 2- Pain

Grade1:non

Grade2:Mild (activity normal)

Grade3-moderate (after activity or with)

Grade4- severe (at rest)

3- Stability clinically by varus-valgus stress

Grade1-normal

Grade2-mild loss

Grade3-moderate loss

Grade4-Sever loss (limits every tasks)

4- Strength: The grip of hand comparison to opposite range of movement 0.2 points per degree

Points

Motion

Flexion (150<sup>0</sup>)

Extension (10<sup>0</sup>)

Supination (80<sup>0</sup>)

Pronation (80<sup>0</sup>)

Stability

Grade 1:-normal

Grade 2:-mild loss (perceived by patients, no limitation)

Grade 3:- moderate loss (limits some activity)

Grade4:- severe loss (limits every day tasks)

### RESULTS

Details are given in Table -I- that of 10 patients at follow-up for one years 9 had good or excellent results by modified morrey index.<sup>[5]</sup>

**Table (1): functional rating index.**

	Range of movement	point
Motion	Flexion (150 <sup>0</sup> )	30
	Extension (10 <sup>0</sup> )	20
	Sup nation (80 <sup>0</sup> )	16
	Pronation (80 <sup>0</sup> )	16
Pain	Grade1:-none	12
	Grade2:-mild	8
	Grade3:-moderate(with or after activity)	4
	Grade4:-sever (at rest)	0
Strength	Normal	12
	Mild (80% of opposite side)	8
	Moderate loss( 50%of opposite side)	4
	Sever loss(disabling )	0
Stability	Grade 1 normal	12
	Grade2 mild loss(no limitation)	6
	Grade3 moderate loss limits some activity	2
	Grade4 severe loss	0
Results	Excellent	90-100
	Good	80-89
	Fair	70-79
	Poor	<70

90% had good or excellent result they were able to continue their work and daily activities without restriction only one patient his result poor change his job.

## DISCUSSION

The treatment for mason type||| fractures of the radial head early excision decrease the late pain and loss of motion<sup>[4,5,6,7]</sup> during follow up early excision have commented on changes in occupation. the average of time lost from work in our study was 12 weeks.

Hein<sup>[8]</sup> found the average this ability after operation was 10weekws .our results agree with mark A Broberg and R.P.A Janssen, J.Vegeter<sup>[9]</sup> who found that pain was good to excellent(90%) and the average loss of motion after early resection on all direction was 5. Dickson<sup>[10]</sup> agree that the best time for surgery is with in 7-10 days if surgery is delayed limitation of motion increase. Morrey<sup>[11]</sup> have shown that the medial collateral ligament of elbow is important in valgus after resection of the radial head in our study that there was mild valgus instability about 5%. This agree with Morrey et ly who found that valgus stability is provided by intact medial collateral ligament if intact no prosthetic implant is necessary after resection of radial head. This study agree with R. P.A Janssen, J. Vegeter<sup>[9]</sup> who found in 4 patients among 24 patients early excised to have cubitus valgus 10 with no valgus in stability.

Proximal displacement of the radius after resection of radial head has been described by many authors<sup>[3,4,5,6]</sup> Raidin and Roseborough<sup>[11]</sup> described three patients with proximal radial migration after head excision. We found that proximal radial migration was more in early excision Mcdougall and white<sup>[12]</sup> who found that loss of osseous and ligament us.pull of muscles and the strain may

stretch the inter osseous membrane allowing proximal this displacement of the radius.

The results of study has indicated that excision of mason type ||| comminuted fracture of head radius are better if carried out.

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