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RESEARCH ARTICLE

CLOSED INTRA- ARTICULAR FRACTURES OF THE DISTAL END OF HUMERUS SURGICALLY TREATED BY TRANS- OLECRANON APPROACH USING THE CHEVRON OSTEOTOMY

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Manuscript Info

Manuscript History

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Abstract

Introduction: The trans-olecranon approach has been suggested to improve the visualization of complex intra-articular distal humerus fractures. This approach involves an osteotomy of the olecranon to give better access to the distal humerus. The most commonly used technique is a distally-based chevron osteotomy as this provides greatest access and has inherent rotational stability.

Materials and Methods: This is a retrospective study of 50 patients treated at department of orthopaedics that includes newly diagnosed patients with presenting themselves in casualty and OPD, On admission of the patient after injury, a thorough history was taken, local examination of elbow was done, Diagnosis was confirmed by radiographs

Results: This procedure resulted significant correction of deformity in all the patients with adequate range of movement

Conclusion: Rigid anatomical fixation and early mobilization is the key communication of fragments show increased difficulty in fixation and results in loss of movements also.

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Introduction:-

1. The trans-olecranon approach has been suggested to improve the visualization of complex intra-articular distal humerus fractures.
2. This approach involves an osteotomy of the olecranon to give better access to the distal humerus.
3. There are several described patterns of osteotomy.
4. The most commonly used technique is a distally-based chevron osteotomy as this provides greatest access and has inherent rotational stability.

Aims and Objectives:-

1. To achieve rigid anatomical fixation .
2. To achieve Optimum Range Of Movements.
3. To achieve sound Union.
4. To Treat the Complications.

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Material and Methods:-

1. This is a retrospective study (Jan 2019-June 2021) of 54 patients treated at - Department of Orthopaedics , tertiary care centre that includes newly diagnosed patients with presenting themselves in casualty and OPD of Department of Orthopaedics.
2. On admission of the patients after injury , a thorough history was taken from patient / relatives regarding the time of injury , injury mechanism.
3. Local examination of injured elbow was done.
4. Diagnosis was confirmed by antero- posterior , lateral radiograph.
5. Routine investigations were done.

Criteria for selection of the cases

Inclusion Criteria

1. Age > 18 years
2. Patients of either sex
3. Patients having supracondylar fracture of humerus
4. Patients who are fit for surgery
5. Patients willing to participate in the study

Exclusion Criteria

1. Age < 18 years
2. Unwillingness to participate in the study
3. Patients unfit for surgery / anaesthesia

Operative Technique

Posterior Midline Incision



V'' Osteotomy of The Olecranon.



Triceps Muscle Flap Elevation



Reduction By Temporary 'K' Wires used as Joy sticks.



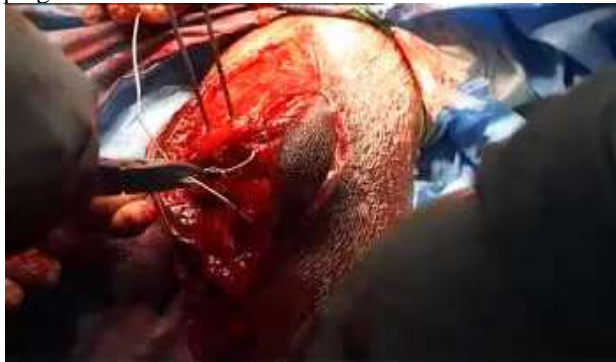
Trial Reduction & Fixation of T-C complex



Final Reduction & Fixation with 3.5 DCP system



TBW Fixation for Olecranon Osteotomy Impingement



Check Reduction & Confirm that there is No Impingement



Pre-operative X-ray
AO type C2 #



Post-operative X-ray



Clinical Pictures at end of 3 months



Observations and Results:-

Total patients :54

38 Males

16 Females.

M:F

2.5:1

Unicondylar

A2

,

A3

:-14

Bicondylar

B2

,

B3

:-20

C type T-Y C2 , C3 :-20

Average age of patient=44 years.(28 to 64)

Results	ROM In Loss of Extension	Degrees Flexion	Pain	Disability
Excellent	<15	>130	none	none
Good	<30	>120	slight	minimal
Fair	<40	>90	With activity	moderate
Poor	<40	>90	variable	severe

Conclusion:-

1. Rigid Anatomical Fixation & Early Mobilization is the Key.
2. High complications in Elderly Osteoporotic patients.
3. Younger the patient Better the results.
4. Communion of Fragments show increased Difficulty In Fixation,& results in loss of movements also.

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