



ACROMIOCLAVICULAR JOINT (AC JOINT) DISRUPTION TREATED USING CLAVICLE HOOK PLATE

Dr. Manikandan K^{1*}, Dr. Venkadesh S J^{2*}, Dr.Thiagarajan³, Dr.N.Prashanth⁴

Abstract-

Purpose-To study about ac joint disruption treated using clavicle hook plate .This procedure allows stable reduction of fracture with this plate.

Method- A case report of a 45 year - female treated with clavicle hook plate.

Results- On periodical follow up patient mobilised well without pain and was able to carry out her day to day activities without any discomfort.

Conclusion- AC joint disruption treated with clavicle hook plate shows decrease in pain and mobility of the patient improved well.

Keyword- AC Joint, Clavicle Hook Plate.

^{1*}Junior Resident, Dept. of Orthopaedics, SBMCH, Chennai, Tamil Nadu.

^{2*}Junior Resident, Dept. of Orthopaedics, SBMCH, Chennai, Tamil Nadu, India.

³Associate Professor, Dept. Of orthopaedics, SBMCH, Chennai, Tamil Nadu.

⁴Junior Resident, Dept. of Orthopaedics, SBMCH, Chennai, Tamil Nadu, India.

***Corresponding author -** Dr. Venkadesh S J, Dr. Manikandan K
Mail I'd-Leopoldvermillion7@gmail.com

DOI: 10.48047/ecb/2023.12.si10.00182

INTRODUCTION-

Acromioclavicular joint disruption (AC Joint) , is a condition of the seperation of clavicle from its anatomical position in relation to the acromium. AC joint disruption mostly due to direct blow or

fall of outstretched hand and due to acromioclavicular and coracoclavicular ligament strain. Diagnosis is confirmed using radio- X-rays of the shouder and clavicle. In this AC joint diruption treated using clavicle hook plate.

Rockwood Classification of Acromioclavicular Joint Injuries

- Type 1 and type 2 Injuries are managed conservatillely.
- Type 3 injuries can be managed conservatively or surgically depending on the patients age, general level of activity and athletic demands.
- Type 4-6 injuries are definite indications for surgery.

Type	AC ligament	CC ligament	DT fascia	Direction and degree of dislocation
1	Sprain	Intact	Intact	No subluxation
2	Rupture	Sprain	Intact	Superior, with < 25% increase in CC distance
3	Rupture	Rupture	Intact	Superior, with 25-100% increase in CC distance
4	Rupture	Rupture	Injured	Clavicle displaced posteriorly into trapezius
5	Rupture	Rupture	Detached	Superior, with 100-300% increase in CC distance
6	Rupture	Rupture	Detached	Clavicle displaced inferior to acromion or coracoid

CASE REPORT-

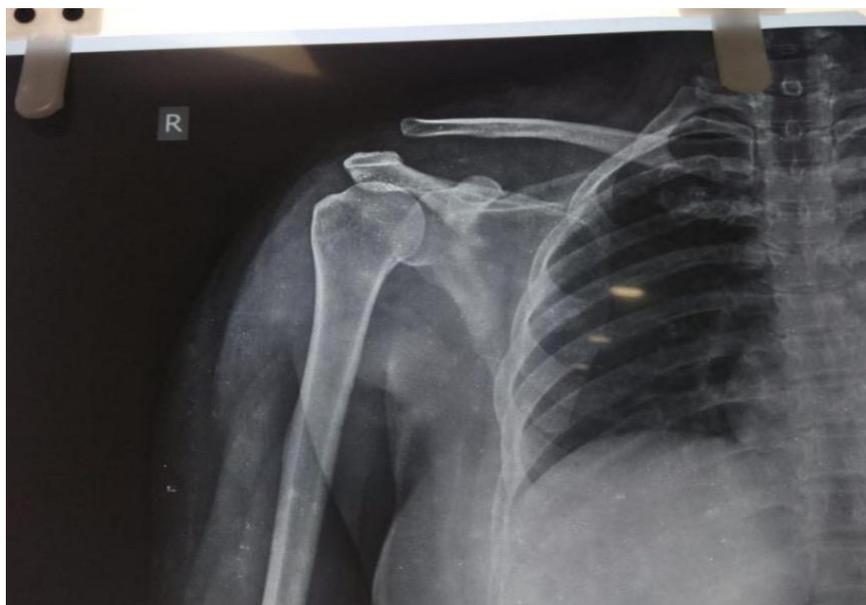
A 45 years old female came with chief complaints of slip and fall at her residency and sustained injury to the right shoulder , clavicle.

No H/o LOC, ENT bleed, vomiting. No h/o fever/infections. No comorbidities.

LOCAL EXAMINATION- RIGHT SHOULDER WITH CLAVICLE-

No scars, sinuses
Swelling +
Warmth +
Tenting present over the lateral end of clavicle
Tenderness present over the lateral end of clavicle and acromium.
Range of movements painful and restricted.

PREOP XRAY-



Xray shows AC joint disruption

PROCEDURE- Open reduction internal fixation with clavicle hook plate.

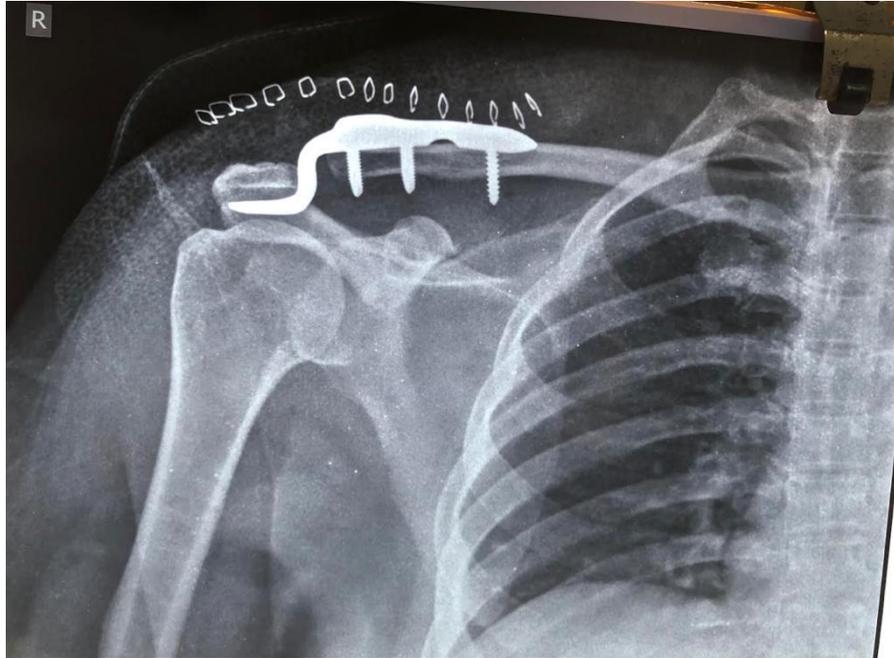
Position- Beach chair position

Approach - Anterior Approach

Using 10 , cm horizontal incision , skin and subcutaneous tissue cut and retracted.

Platysma muscle cut, Ac joint desruption seen, reduced and clavicle hook plate fixed in position with 3 screws placed.

Thorough wound was given, wound closed in layers and sterile dressing done

POST OP XRAY-

Post op X-ray after procedure.

DISCUSSION-

AC joint disruption treated with clavicle hook plate for the moderate to very severe cases showed good progression of results.

We saw several factors that believe have made our procedure safe in our hands. Ac joint is the most important joint in shoulder as it is disrupted the treated modalities varies in hand and there are many treatment options also.

The treatment of choice is always controversial based on severity and surgeons choice. In this case we did clavicle hook plate which showed excellent results.

CONCLUSION-

AC joint disruption treated using clavicle hook plate is the best modality of treatment and showed excellent results in function and mobility of the joint.

AC joint disruption treated with clavicle hook plate has showed good improvement with decrease in pain and increase in the mobility of the patient.

REFERENCES-

1. Flinkkilä T, Ristiniemi J, Hyvönen P, Hämäläinen M: Surgical treatment of unstable fractures of the distal clavicle: a comparative

study of Kirschner wire and clavicular hook plate fixation.

2. Khan LA, Bradnock TJ, Scott C, Robinson CM: Fractures of the clavicle.
3. Pfahler M, Krödel A, Refior HJ: Surgical treatment of acromioclavicular dislocation. Arch Orthop Trauma Surg.
4. Fann CY, Chiu FY, Chuang TY, Chen CM, Chen TH: Transacromial Knowles pin in the treatment of Neer type 2 distal clavicle fractures. A prospective evaluation of 32 cases.
5. Wang SJ, Wong CS: Extra-articular Knowles pin fixation for unstable distal clavicle fractures.