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A case of Inferior Dislocation of Right Shoulder

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TITLE
A case of Inferior Dislocation of Right Shoulder

CLINICAL HISTORY
A 34 year old female patient, came with alleged history of RTA(fall from two wheeler)and presented with pain over right shoulder since 5 months. It was sudden in onset, progressive,non radiating, aggregated on movements, relieved on rest

Past Medical History
Not significant

FAMILY HISTORY
Not significant

PERSONAL HISTORY
Not significant

EXAMINATION AND INVESTIGATIONS:

GENERAL PHYSICAL EXAMINATION

34 year old female patient conscious, oriented to time,place and person.

BP: 110/70mmHg

PR: 76bpm

SpO2: 99%@ RA

RR: 20cpm

Temperature: Afebrile

No pallor, icterus, cyanosis, clubbing, lymphadenopathy, and generalized edema

SYSTEMIC EXAMINATION

CVS: S1 S2 heard, no murmurs.

PA: soft, non tender, Normal bowel sounds heard, no organomegaly

RS : B/L Normal vesicular breath sounds heard

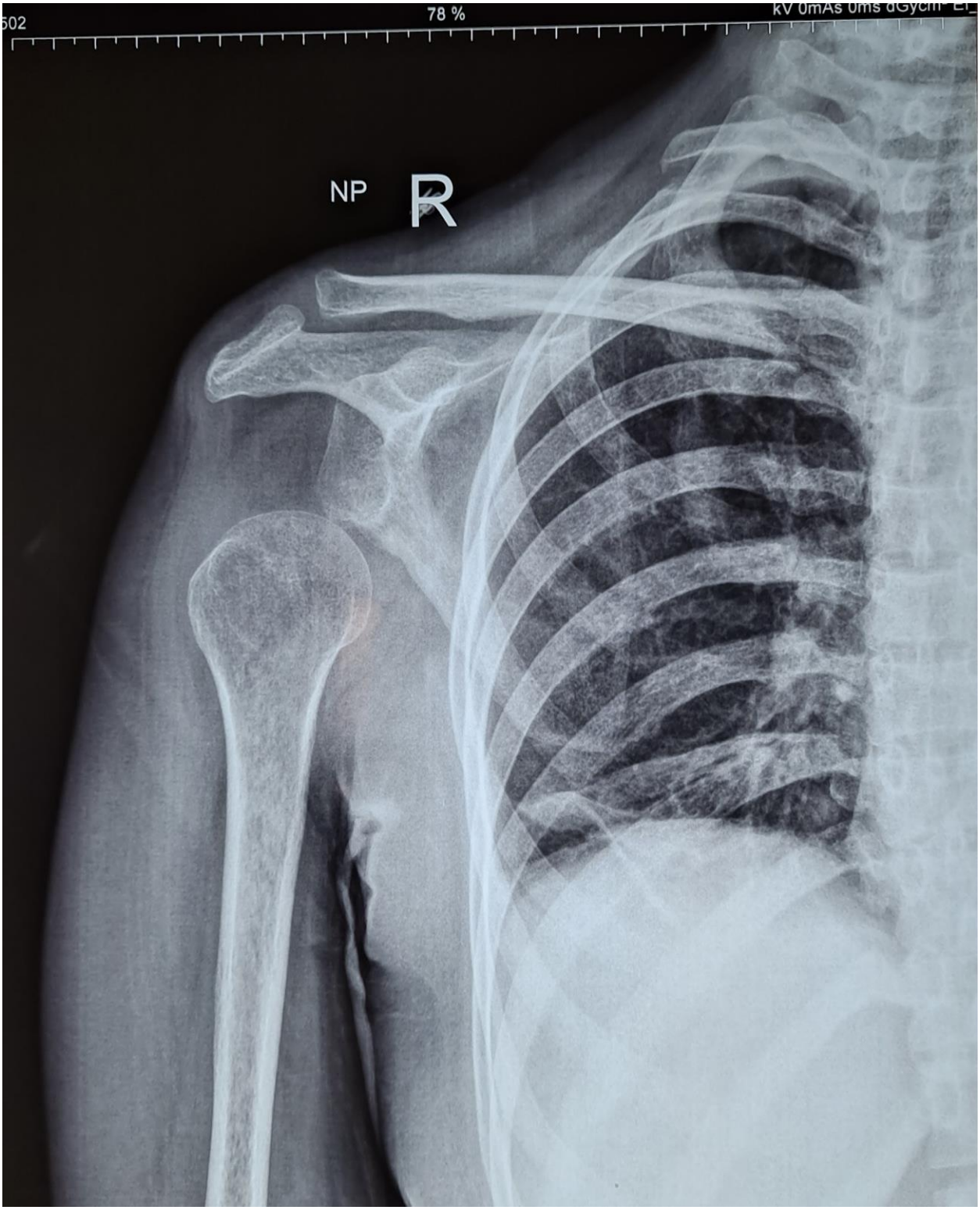
CNS: within normal limits

LOCAL EXAMINATION

On Inspection:
Bilateral clavicles are not at same level
Right clavicle appears to be higher than left clavicle
Contour of shoulder appears to be flattened (drooping of shoulders)

On Palpation:
tenderness over right shoulder
bony crepitus present
ROM: painful and restricted in all directions

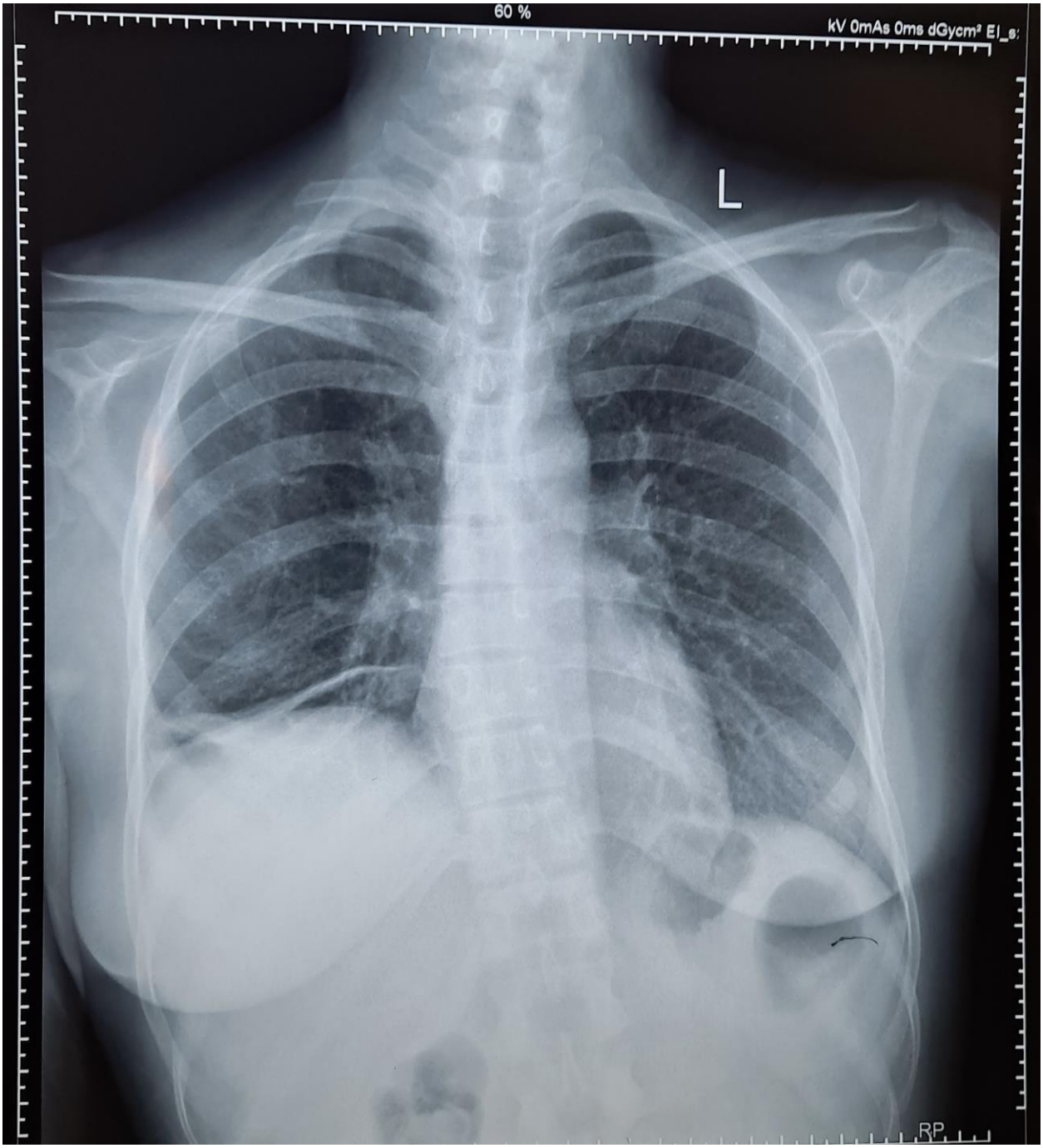
RADIOGRAPHICAL FINDINGS:



1) X-ray AP view of Right shoulder joint:

●Shows displacement of the right humeral head directed inferior and slightly medial to the glenoid fossa

- The clavicle and scapula appears normal
- Displaced fracture of posterior aspect of right 2nd rib noted
- Rest of the visualized bones appear normal
- Atelectatic band is noted in the right lower zone
- Adjacent soft tissue is edematous



2) Chest X-ray AP view

●Rotated film

●Blunting of right costophrenic angle- ?pleural effusion

●Atelectatic band is noted in the right lower zone.

●Right hemidiaphragm is elevated

●Left costophrenic angle is clear

●Rest of the visualized lung fields are normal

●Trachea and main bronchi are normal

●Cardiomediastinal contour is normal

●Displaced fracture of posterior aspect of right 2nd rib noted

FINAL DIAGNOSIS: Inferior dislocation of Shoulder joint, Right Side

TREATMENT:

1) Medical Management: Patient has been started on Analgesics
2) Plastic Surgery Reference: for nerve grafting and for further management
3) Physiotherapy

DISCUSSION:
An extremely rare injury of the glenohumeral joint is Inferior dislocation.In 1859, the unique nature of luxatio erecta was first recognized by Middeldorph and Scharm. Of all shoulder dislocations,the incidence of luxatio erecta is estimated to be 0.5%.[1]
There are two mechanisms of injury that have been described for luxatio erecta [2,3,4]. In direct mechanism, on a fully abducted arm axillary loading is observed and through the weak inferior glenohumeral ligaments and joint capsule,the humeral head is driven,resulting in fracture of the greater tuberosity and tearing the rotator cuff quite often[3,4].In indirect mechanism, on an already abducted limb a violent abduction force would lever the proximal shaft of humerus over the acromion and in abduction below the glenoid ,the humeral head comes to rest.[4]
Inferior dislocation of shoulder can be classified into subglenoid (beneath the inferior rim of glenoid) or subcorocoid (in front of the neck of scapula)based on the location of numeral head[5,6].It can also be classified as luxatio erecta type (humerus parallel to spine of scapula) or true inferior dislocation type (humerus parallel to the chest wall) based on position of the arm[5,6,7]
Clinically, luxatio erecta presents with the arm elevated and the forearm fixed, resting on the head. The humeral head is found to be palpable on the chest wall. Radiographic examinations usually reveals the humeral head to be situated beneath the coracoid or glenoid, and the humeral shaft to be located parallel to the scapula spine.[1] Here in this case, X-ray right shoulder joint AP and lateral view shows displacement of the right humeral head directed inferior and slightly medial to the glenoid fossa, and also atrophy of deltoid muscle was seen.
There are chances of getting associated neurovascular injuries after luxatio erecta. Vascular injuries, even though rare , are serious and may even require surgical intervention , axillary

vessels being most commonly evolved. Neurological involvement is quite common, the axillary nerve being most common.Recovery from such injuries are attained mostly within 2 weeks to 1 year [4,8].In some cases,there are some chances of fracture of the acromion, clavicle, inferior glenoid fossa, and greater tuberosity. Associated tears of rotator cuff may also be seen in around 12% of patients . [4]
Luxatio erecta is relatively rare, yet the overall prognosis is good. Rarely, recurrent dislocations have been reported. Even though some authors have recommended immediate reduction followed by surgical repair of the rotator cuff on a later date,functional recovery has been achieved in some patients after conservative treatment. [1]

CONCLUSION: This is a case of inferior dislocation of right shoulder joint of a 24 year old female with no known comorbidities.Hence a multifaceted approach combining physiotherapy, medical management with analgesics and surgical approach in case of evidence of neurovascular deficits is the preferable mode of treatment.

ACKNOWLEDGMENT: NONE

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