

Metacarpal Neck Fracture



PLAY PICMONIC

Characteristics

Fifth Metacarpal Neck Fracture

(5) Hand Metal-car-pool Neck Fracture

Metacarpal neck fracture commonly occurs as a fifth metacarpal neck fracture and is commonly found in 30-40% of all hand fractures.

Boxer's Fracture

Boxer Fracture

A metacarpal neck fracture is also known as a boxer's fracture. It is commonly seen in street fighters and rarely in professional or high-level amateur boxing.

Mechanism

Direct Trauma to a Clenched Fist Against Hard Surface

Trauma-spike Clenched Fist hitting Hard Surface

Besides punching, metacarpal neck fracture is caused by direct trauma to a clenched fist against a hard surface. This can be seen in a patient complaining of pain and swollen hand after punching a wall because of anger.

Signs and Symptoms

Pain

Pain-bolts

Patients may experience pain and focal bony tenderness on the fractured metacarpal. Findings of ecchymosis and tenderness of the palmar can help us suspect a fracture.

Swelling

Swollen

Patients can be seen with swelling of the fracture site. The patient may experience swelling around the first week or so. It can also occur with rotational deformity.

Diagnosis

X-Ray

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An X-ray helps diagnose the presence of a fracture of the 5th metacarpal neck. It is important to check angulation during X-ray interpretation. The lateral view is used to help with this.

Treatment

Splints

Splint

An ulnar gutter splint is used to immobilize the fourth and fifth metacarpal neck fractures. Splinting is used not only as an initial immobilization but also as a definitive treatment, depending on angulation. The patient also needs supportive care, such as analgesic to treat pain.

Surgery

Surgeon

Surgery is indicated in patients with open fractures, complex fractures such as comminuted fractures, and significant angulation (>40 degrees in the fifth metacarpal fracture).