E-Poster

EP-211

Functional Outcome of a Hahn Steinthal Fracture Treated by Screw Fixation and Rehabilitation: A Case Report

Topic: Complications/Sequelae (ie Spasticity, Immobilization and Frailty)

Rime Dades, Abdelhakim Kabil, Mouad Yazidi, Ryme El Beloui, Hasnaa Boutalja, Nada Kyal, Fatima Lmidmani, Abdellatif El Fatimi

Department of Physical Medicine and Rehabilitation, Ibn Rochd University Hospital Center, Casablanca, Morocco

BACKGROUND

Hahn Steinthal or capitellar fracture is very rare, accounting for less than 1% of all elbow fractures. It is often neglected because of discrete radiological signs. Early management is necessary due to the complications that this fracture can cause: stiffness, osteoarthritis, residual pain,etc.

CASE DESCRIPTION

We report the case of a female patient aged 18, right-handed, who suffered a trauma to the left elbow after falling on an outstretched hand from a standing height. The diagnosis was confirmed by a standard lateral and anteroposterior (AP) X-rays of the elbow, that showed a coronal capitellar fracture classified as type 1, also known as the 'Hahn Steinthal fracture', according to the Bryan & Morrey classification. A computed tomography (CT) scan with 3D reconstruction was performed to analyze the extension of the fracture and look for associated occult fractures and ligamentous injuries.

The patient underwent open reduction surgery with solid fixation using screws, postoperative follow-up was uncomplicated, an elbow splint was kept for two weeks.

The neuro-orthopaedic examination showed a limited range of motion, with flexion at 80° active/95° passive, an elbow flexum at -35° reducible to -25°, and supination at 60°. The visual analog scale (VAS) was rated a 5 and the neurovascular assessment was without particularities.

Functional evaluation was judged to be poor by the Mayo Elbow Performance Score (MEPS), which assesses pain, mobility, stability and global function of the elbow, with a score of 55/100.

Consolidation was complete at two months, with a normal joint space categorized as Grade 0 as per the Broberg & Morrey classification for osteoarthritic progression. A follow-up at six months found a satisfied patient with an elbow flexion of 130°, extension of 170°, total resolution of pain, and a MEPS score of 100/100.

CONCLUSION

Our case has illustrated that early surgical intervention, with accurate anatomical reduction and solid internal fixation are of crucial importance, granting early postoperative rehabilitation and ensuring optimal clinical outcomes.

Fractures of the humeral capitellum are very rare and often go unnoticed. Misdiagnosis can lead to debilitating functional complications and a deterioration in the patient's quality of life, as can delays in initial surgical intervention or postoperative rehabilitation, or prolonged immobilization.

Statement of Disclosures

None

Corresponding Author:
Rime Dades
Department of Physical Medicine and Rehabilitation, Ibn Rochd University Hospital Center, Casablanca, Morocco
Email: dades.rime@gmail.com

Doi: 10.5606/archisprm.2026.EP-211