

## SCAPHOID FRACTURES: CLASSIFICATION, DIAGNOSIS, TREATMENT

Saraf Rajeena Lamia, Vitalie Iacubitchii

Scientific adviser: Vitalie Iacubitchii

Department of Orthopedics and Traumatology, Nicolae Testemițanu University of Medicine and Pharmacy

**Background.** The most frequent type of carpal bone fracture is a scaphoid fracture, which typically affects young men, though during the past ten years, more women have been affected as well. Of all carpal fractures, 82-89% concern scaphoid fractures. **Material and methods:** The research involves the synthesis of data from international literature. **Result:** A scaphoid fracture, also known as a navicular fracture, is a break in one of the carpal bones. Scaphoid fracture is classified into a. Herbert classification b. MAYO classification c. Russe classification. Symptoms of fracture are pain, swelling, tenderness, decreased range of motion, bruising, weakness. Clinical manifestation of scaphoid fracture mainly includes wrist and thumb pain, swelling near the thumb's base, wrist pain that occurs with movement. The pain will start within days. Complications of fracture can be nonunion; avascular necrosis; scapholunate dissociation; delayed union. Diagnosis include conventional radiography, computed tomography (CT scans), magnetic resonance imaging, bone scintigraphy, and sonograms. Stable scaphoid fractures are treated conservatively with plaster cast immobilization or another type of orthosis for

four to twelve weeks. Surgical treatment can be: 1. Screw Fixation treatment includes inserting a screw directly into the scaphoid bone, which helps to keep it in place until it heals. 2. Scaphoid Debridement is a procedure that involves making an incision in the wrist where the bone fracture and non-union are present. 3. Bone Graft - This treatment will involve inserting bone tissue from your body into the scaphoid fracture. This procedure promotes bone surface union and repairs the injury. **Conclusion:** Even though a scaphoid fracture looks small, if it is not treated correctly and quickly, it can have serious consequences. Because of its location and blood flow, problems including avascular necrosis and nonunion may occur, and healing may be sluggish. Depending on the form and displacement of the fracture, prompt diagnosis using imaging methods such as MRI or CT scans is essential, followed by the proper immobilization or surgical intervention. Following up with treatment and receiving rehabilitation are essential for a full recovery and to avoid long-term issues. **Keywords:** scaphoid fracture, pain, screw fixation, cast immobilization.

## CONSERVATIVE TREATMENT IN MANAGEMENT OF PELVIC INJURIES

Sandra Sunilkumar<sup>1</sup>, Anna Kusturova<sup>1,2</sup>

Scientific adviser: Anna Kusturova<sup>1,2</sup>

<sup>1</sup>Department of Orthopedics and Traumatology, Nicolae Testemițanu University

<sup>2</sup>Institute of Emergency Medicine

**Background.** Pelvic ring injuries are complex, 3-8% of skeletal injuries, caused from severe traumas by high-energy collisions can be associated with multisystem damage and high morbidity and mortality due to significant bleeding. Effective management is crucial for patient survival and recovery. **Objectives of the study:** To assess the current approaches for the treatment of pelvic ring injuries, contrasting the results of conservative and surgical methods. **Material and methods:** This study represents a retrospective analysis of clinical and radiological data for 24 patients with pelvic ring injuries treated in the department of traumatology nr.2, Institute of Emergency Medicine during the years 2022-2023. The cohort comprising 14 females (58%) and 10 males (42%). Patients were aged from 19 to 93 years, mean age was 54 years. Of these cases, 15 (63%) involved pubic bone fractures, 7 (29%) had multiple injuries of the pelvic ring, and 2 (8%) had iliac bone fractures. Isolated pelvic fractures were diagnosed in 19 cases, associated trauma was in 6 cases. All patients have been examined by a complex multidisciplinary team. Prompt provisional stabilization and immobilization of the pelvic ring were crucial during initial resuscitation. **Results.** In this

study of 24 patients with pelvic ring injuries, pelvic binder application and hemodynamic stabilization were implemented if necessary. Conservative management was performed in 22 patients with stable fractures, enabling gradual recovery without surgery. Closed reduction with external fixation was done in 2 cases, enhancing functional outcomes. **Conclusions.** Pelvic ring injuries with early and appropriate stabilization should be done individually according to the fracture type and stability of the pelvic ring. Conservative therapy of stable pelvic injuries improves outcomes by promoting rapid mobilization and reducing complications. **Keywords:** Pelvic injury, stabilization, conservative treatment, closed reduction.

Studiu realizat cu suportul proiectului 160101 „Managementul politraumatismului: acordarea asistenței medicale specializate pacienților cu leziuni multiple și asociate ale aparatului locomotor în urma accidentelor rutiere în Republica Moldova” din cadrul Programului instituțional de cercetare (2024-2027), coordonator de proiect: KUSTUROVA Anna, dr. șt. med., conf. univ., autoritatea contractantă: Ministerul Sănătății.