

Distal radius fractures in the superelderly. An observational study of 8486 cases from the Swedish fracture register.

Marcus Sagerfors¹, Hugo Jakobsson¹, Ásgerdur Thórdardóttir¹, Per Wretenberg², Michael Möller³

¹ Dep of Hand Surgery; Örebro University Hospital

² Dep of Orthopedics, Örebro University Hospital

³ Dep of Orthopedics, Sahlgrenska University Hospital

BACKGROUND The distal radius fracture (DRF) is the most common fracture in adults. With an ageing population, the number of wrist fractures in the superelderly (≥ 80 years) is expected to rise. Optimal treatment for displaced DRFs remains controversial, especially in the superelderly group. In addition, basic knowledge of the outcome after a DRF in this heterogenic group is lacking. The aim of this study was to study epidemiology, treatment and outcome of DRFs in superelderly patients using data from a large national register study.

METHODS We used prospectively collected data from the Swedish Fracture Register. All distal radius fractures registered between April 2012 and December 2018 in patients ≥ 80 years of age were included. Data on epidemiology, fracture type, trauma mechanism and treatment are registered by the physician treating the patient. Patients are also sent a subjective outcome questionnaire including EQ-5D, EQ-VAS and Short Musculoskeletal Function Assessment questionnaire (SMFA-score) at the time of injury and after 12 months. The 12-month questionnaire was sent to those who had completed the questionnaire at the time of injury. A Mann-Whitney U-test was used to assess differences between treatment methods.

RESULTS Mean age for this population was 86 years (80-105 years), a majority of the patients were female (86.7%). The dominating injury mechanism was a simple fall (74.6%) in the patient's residence. The majority of fractures were AO type A (70%) followed by AO type C (20.9%) and type B (8.6%). The incidence of open fractures was significantly higher in females (2.6%) compared to males (1.5%). A majority of the fractures were treated with a cast (87.5%) with volar locking plate as the second most common treatment method (6.6%). Patient-reported outcome measures (PROMs) EQ-5D, EQ-VAS and the Arm Hand Function Index of the SMFA-score deteriorated somewhat one year after injury compared to pre-injury. PROMs did not correlate to treatment with cast or a volar plate

CONCLUSION

- This nationwide register study provides detailed data on DRFs in the superelderly regarding epidemiology, treatment and self-reported outcome.
- A good self-reported outcome is possible, but many patients do not recover completely. PROMs did not correlate to type of treatment.
- The frequency of open fractures was significantly higher in females. The reason for this is unclear but different skin thickness in older males versus females may be one explanation.