Outcomes in Elderly Patients with Hip Fracture and Concomitant Fractures

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Purpose: The purpose of our study is to determine if the presence of concomitant fractures in patients with hip fracture affect length of hospital stay, complications, functional scores, readmissions, and rate of survival at 1 month and 1 year of follow-up.

Methods: We performed a prospective cohort study in our institution with consecutive incident cases capture and standardized evaluation at 1 month and 1 year of follow up. A basic statistical evaluation. Between 2014 and 2018 we included patients older than 65 years with hip non pathologic fracture. Patients demographics characteristics were recorded as well as length of hospital stay, readmission rate, complications, functional scores (Parker) and survival rate at 1 month and 1 year of follow up. We defined 2 groups: concomitant fracture group (CFG) and non-concomitant fracture group (NCFG).

Results: 1429 patients were included. Patients with and without concomitant fractures had similar demographic characteristics. 82 patients (5.7%) had concomitant fractures. The mean age in CFG was 85.9 years (standard deviation [SD] ± 6.4) and in NCFG was 84.6 (SD ± 6.7); P = 0.968. In CFG, 79% were female, and 85% in NCFG; P = 0.168. The most frequent concomitant fracture was distal radius fractures (n = 34) and proximal humeral fractures (n = 22). Length of hospital stay was approximately 6 days (interquartile range [IQR], 5-10) for CFG versus 6 days (IQR, 5-9) in NCFG, P = 0.44. The 1-year survival rate was 85% (confidence interval [CI], 75-92) in CFG versus 82% (CI, 79-84) in NCFG, P = 0.738. The median of the difference between Parker baseline and Parker at 12 months in the CFG was –2 (IQR, –4 to 0) and in the NCFG was –2 (IQR, –3 to 0); P = 0.756. Having a concomitant fracture did modify the following variables: complication rate at 12 months was 55% (CI, 43%-67%) in CFG versus 40% (CI, 37%-43%) in NCFG; P = 0.029. Principally, complications were infections, followed by thromboembolic disease. The rate of readmission at 12 months was 49% (CI, 37%-62%) in CFG and 33% (CI, 30%-36%) in NCFG; P = 0.031.

Conclusion: Patients with hip and a concomitant fracture were mainly females. Concomitant fractures did not influence length of hospitalization, survival rate, and functionality. Nevertheless, complications and readmission rates were modified by the presence of concomitant upper limb fractures. These values showed the negative impact of having a concomitant fracture in a hip fracture event.

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