Due to improved health-care systems, the life span expectation is increasing and leads to older populations in the Western countries. There is a variety of consequences based on this development, several of them affecting health-care systems. Since older patients show other patterns of overall illness, also trauma systems will have to adapt their management. Surgeons are more and more confronted with relatively new entities of injuries, posttraumatic complications, and the corresponding patient management. This involves concepts to achieve an immediate full weight-bearing stability after fracture fixation allowing early mobilization and early discharge.

Of recent literature, it is known that age itself affects outcome in the trauma patient negatively. Moreover, it is known that the delay of surgical procedures, e.g., in case of fractures of the proximal femur results in increasing morbidity and mortality. Therefore, early and profound interventions are mandatory in geriatric trauma patients to address the often severe comorbidities such as diabetes, anticoagulation, chronic heart, or kidney disease. Besides surgical site infections, especially systemic complications such as pneumonia due to limited mobility or an acute renal failure are examples for potential life-threatening complications which have to be known if you are dealing with these patients.

Another investigation aimed to elucidate the effect of age on outcome in multiple trauma patients. When analyzing patients with an injury severity score (ISS) ≥16 and aged 75 and older, an excessively increased mortality was found; predictors of mortality were an ISS >25, deranged coagulation status, and a Glasgow coma scale <9.[1] The authors concluded that early normalization of coagulation status is one of the critical and manipulable aspects in acute trauma cases.

The study at hand aims to quantify the impact of age, injury severity, and comorbidities on outcome in trauma patients ≥65 years of age. A retrospective analysis was performed analyzing various parameters such as mechanism of injury, Intensive Care Unit length of stay (LOS), hospital LOS, surgical interventions, complications, and mortality. In particular, the complications are important in face of upcoming studies or protocols: hospital-acquired pneumonia, surgical site infection, thrombotic events, and sepsis. Discharge placements were defined: rehabilitation center, assisted living facility, home, or transfer to another hospital.

The authors were able to include more than 1000 patients in their retrospective analysis, and the majority of the patients (66.8%) showed an ISS between 9 and 14 reflecting a relatively moderate injury severity. Interestingly, not more than 13% of the patients used anticoagulants; most of the patients suffered from hypertension, diabetes mellitus, or coronary artery disease reflecting the realistic pattern of comorbidities in these patients. In total, 21% of the patients showed complications whereas pneumonia and sepsis were the most common; a total mortality of 3.4% was noted. According to the regression analysis performed, the authors state that age alone is a weak predictor for mortality; it seems more likely that the combination of chronological age, number of comorbidities, and injury severity leads to poor outcome and corresponding increased mortality.

To address the specific needs and to adapt the therapeutic algorithms for geriatric patients, a number of papers dealing with specific geriatric centers have been published in the past years. Patient-specific surgical interventions such as the use of bone cement, e.g., in case of proximal femoral fractures, closed reduction, and internal fixation using proximal femoral nails demonstrate promising results.[2] In addition, the effect of orthogeriatric services on outcome in geriatric patients has been elucidated. Although there were some conflicting results in studies with limited evidence, it was shown that specific centers and management of geriatric patients lead to improved outcome. Watne et al. investigated the effect of orthogeriatric service on cognitive function in a randomized controlled trial. The investigators were able to demonstrate that there is limited effect on cognitive function; however, there was a significantly improved mobility in patients receiving orthogeriatric service not admitted from nursing homes.[3]

Another randomized controlled study investigated the effect of being treated in a geriatric ward compared to an orthopedic ward on physical behavior after hip fractures. Investigating 397 patients, the authors found that free-living physical behavior was improved not only after 4 months but also 12 months after surgery. This underlines the beneficial effects of geriatric wards including interdisciplinary meetings.[4]

Recently, Prestmo et al. published a prospective randomized trial in the Lancet investigating the effect of comprehensive geriatric care versus usual orthopedic care on mobility measured with the short physical performance battery 4 months after surgical treatment of hip fractures in patients 70 years or older. The investigators were able to demonstrate improved mobility at 4 months and recommended immediate admission of those patients to comprehensive geriatric care in a dedicated ward.[5]

From the authors of this guest editorials’ perspective, this observation is also supported geriatric patients at our
The study at hand adds important information about several factors on outcome in geriatric trauma patients. Although this is a retrospective study, patient size is high leading to robust statistics and results and therefore is suitable to draw further conclusions.

Christian Zeckey1,2, Christian Kammerlander1,3
1 Department of General, Trauma and Reconstructive Surgery, Ludwig-Maximilians-Universität of Munich, Munich, 2 Trauma Department, Hannover Medical School, Hannover, Germany, 3 Department Trauma Surgery, Innsbruck Medical University, Innsbruck, Austria
E-mail: christianzeckey@gmail.com

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