Differences in the Management of Severely Injured Elderly Patients in Germany: An Analysis of 37,901 Patients of the German Trauma Register DGU®

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Abstract

Demographic changes in Germany show the fastest progress of all European countries and are not only influencing socioeconomic issues but also the management of patients with their individual risk profile. Especially severely injured elderly constitute a group of patients who need specific attention due to their individual age-related pathophysiological processes. 21% of the German population were older than 65 years in 2012. It will increase to 29% in 2030 and 34% in 2060, while 9% will be older than 85 years and Germany is one of the countries with the highest expectancy of life (female 83.3, male 78.6 years) [1]. Elderly casualties do not only show a higher incidence of severe injuries but also an increasing mortality rate [2]. At the same time mobility and activity rates are increasing, showing specific patterns of injury and pathophysiological characteristics in the population of elderly [3]. Next to an increasing average of life the rate and complexity of pre-existing medical conditions is significantly increasing in elderly (report of the TraumaRegister DGU®). Trauma is the main cause of morbidity behind cardiovascular and neoplastic diseases in Germany. Almost one third of all expenses in the German medical system related to trauma patients were invested in the treatment of patients older than 64 years of age. Due to higher complication and mortality rates in severely injured patients, elderly show a significant longer hospitalization [4]. It was our aim to compare the reality of medical treatment and patients' management between elderly and the younger population of severely injured patients. After analysis of the data of 2002–2012 (37,901 severely injured patients) of the German TraumaRegister DGU® we were able to show significant differences in cause of accident, mortality rate, diagnostic strategies, and treatment. Both the diagnostic strategy and the treatment are less progressive in elderly severely injured patients. Especially the management in the trauma resuscitation unit show significant differences as well as the rate of surgical vs. conservative treated specific injuries. With these findings and the increased mortality rate in elderly severely injured patients we see the urge to critically evaluate the management of severely injured patients in times of demographic changes and discuss what adjustments need to be done.

Keywords: Pathophysiological processes, Incidence, Treatment.

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