

MEETING ABSTRACT

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Severe traumatic brain injuries in the elderly

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Background

The elderly are forming an increasingly larger proportion of the population in developed countries with increasingly active life styles. The injured elderly patient has a combination of decreased physiologic reserve and a high incidence of preexisting medical conditions that cause comparably worse outcome, complications, longer hospital stay, and high costs.

Materials and methods

The purpose of this study was to compare data obtained from a statewide data set for elderly patients (> 65 years) that presented with severe traumatic brain injury with data from nonelderly patients (< 65 years) with similar injuries. MATERIAL-METHODS - During the last 6 years(2003,2004,2005,2006,2007,2008) 200 (130 men-65%- and 70 women-35%-) patients were examined. 110 of them were > 65 years, 55% and the rest 90 < 65 years, 45%.Head-injured patients were identified by Glasgow Coma Scale (GCS) score at admission and discharge and Injury Severity Score (ISS). Outcome was assessed by a Functional Independence Measure score in three major domains: expression, locomotion, and feeding.

Results

1. There were more male subjects in the nonelderly population (82 male subjects,91,1%) compared with the elderly population (61men,55,4%). 2.Mortality was 28,1% in the elderly population compared with 12.2% in the nonelderly population. 3.The elderly non survivors were statistically older, and mortality rate increased with age. 4.Stratified by GCS score, there was a higher percentage of nonsurvivors in the elderly population. 5.Functional outcome in all three domains was significantly worse in

the elderly survivors compared with the nonelderly survivors

Conclusions

1.Elderly traumatic brain injury patients have a worse mortality and functional outcome than nonelderly patients who present with head injury even though their head injury and overall injuries are seemingly less severe.2. Although the management of specific neurosurgical injuries is similar in the elderly, many benefit from an overall more aggressive approach to early resuscitation and optimization of cardiopulmonary dynamics. 3. An awareness of the importance of preexisting medical conditions and a coordinated, directed approach to the management of the injuries and the concomitant diseases leads to the most effective care. Upon recovery from injury there is often a change of functional level that precipitates a change in social circumstance.

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