

Impacts on Long-Term Outcome after Major Trauma-Traumatic Brain and Orthopedic Injuries

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Introduction

Mortality of severely injured patients has decreased during the last decades due to improved clinical experience and optimized treatment algorithms [1]. Referring to those patients surviving major trauma, a considerable influence on patients' social, functional and financial circumstances has been proven [1-3]. To date, outcomes in major trauma have commonly been evaluated in terms of mortality and short term health process measures. But as functional recovery following major trauma is known to be a long-term process, measures and perceptions of long-term morbidity, functional deficits and well-being are required [4,5].

Traumatic Brain Injury (TBI) is worldwide known as a considerable public health concern potentially resulting in death or neurological impairment [6]. The incidence of TBI is about 300 per 100,000 inhabitants with almost 50% related to traffic accidents in the Western civilization [7,8]. However, patients with TBI were frequently omitted from study populations due to the known impact on mortality [9]. Furthermore, many outcome studies including patients with TBI might not estimate the complexity of the impact of TBI as the presence of multiple injuries influences morbidity and outcome perceptions [1,10]. The same limitation might be observed in studies emphasizing on TBI without excluding other severe injuries resulting in compromised comparisons between isolated and multiple traumatized patients of different injury severity [9,11]. In short conclusion, only limited information on long-term recovery and morbidity more than 10 years after isolated TBI are available. Furthermore, these reports commonly focused only on the impact of mild TBI, moderate or severe TBI or special subgroups limiting general assumptions. Consequently, more comprehensive long-term outcome studies after isolated TBI are required in order to document potential prognosis and to prepare life plans for survivors, families and clinicians.

Besides TBI orthopaedic trauma is the most common entity after severe trauma resulting in functional deficits, disability and continuously increased pain levels [12-14]. Especially the function of the extremities seems to be critical for professional as well as daily living. While some studies focused on long-term outcome after lower-extremity trauma [15,16] little is known about the long term effects on upper-extremity function. Yet, several studies emphasizing the extremity function have focused commonly geriatric populations which restricts comparability with major trauma populations. Due to the known incidences of orthopaedic injuries and TBI, paucity of perceptions regarding combinations of these injury distributions has to be noted. Consequently, the current issue of the Journal of Trauma and Treatment is presenting current research as well as review articles evaluating the latest perceptions in this field. This issue aims to verify functional physical and psychological, social and miscellaneous outcome results after traumatic brain and orthopaedic injuries. As the Journal of Trauma and Treatment combines the interests of treatment aspects with outcome measures in the aims and scopes, a wide spectrum of meaningful research is highlighted by this issue.

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