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Oral Presentation

Trauma Care in Germany

Milad Shahhossini*

Trauma and Orthopedic Department Bonn, Bonn, Germany

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Abstract

By the year 2020, the incidence of trauma has been predicted to rise worldwide and the death rate is expected to increase from 5.1 million to 8.4 million. The most important cause of death and severe morbidity up to the age of 45 years is traumatic brain injury, with or without polytrauma. Since the early 1970s, traffic-related deaths in Germany have dropped continuously—with the exception of the early 1990s because of the German reunification—from approximately 20,000 to approximately 5300 in 2005, despite an enormously increased traffic volume. Compared with 2004, the death rate declined by 8.2% in 2005. Undoubtedly, this success results mainly from powerful prevention strategies, such as airbags, seat belts, helmets, etc. In 2006, national economic costs for traffic-related injuries were reduced to 32 billion Euros, and expenses for material damages (15.7 billion Euros) surpassed those of personal damages (15.2 billion Euros) for the first time in German history. According to the data of Germany's Federal Statistical Office, there were 335 845 accidents resulting in personal injury in Germany in 2007. 4949 people were killed and 75 433 seriously injured in these 335 845 accidents. Following their accidents, these people require appropriate medical care. Germany has efficient hospitals that provide the various levels of care needed, but those with serious injuries should be treated in appropriate level one or level two trauma centers. Since then it has been shown that the trauma mortality rate in Germany is still falling. Despite this decline and the efficiency of the centers that provide care, it has not been clear until now how homogeneous care is, as measured by the mortality rate.

From Injury Site to Hospital: Who, How, Whereby

The treatment of patients with polytrauma, initially consisting of adequate preclinical resuscitation and management, encompasses a comprehensive package of measures. Their effective administration requires great competence and skill as well as a high level of organization and logistics among emergency physicians and preclinical rescue personnel. In particular, endotracheal intubation, usually regarded as necessary to counteract. For the early stage of diagnostic and therapy of polytraumatised patients the international recognized Advanced-Trauma-Life-Support (ATLS) protocol of the American College of Surgeon was established. In Germany this training of the ATLS is offered nationwide since 2003. This ATLS-concept which was developed in the 1970s is an education concept, which defines a standardized procedure in the early-phase clinical primary-care. It is already established in the acute care of polytrauma patients in more than 30 countries worldwide. Furthermore a significant benefit for the proof or exclusion of free intraabdominal fluid was the implementation of the sonography (FAST= Focused Assessment Sonography for Trauma) in the 1980s. The increasing usage of Multislice-CT-Scans in the primary diagnostic of polytrauma care has also reduced the posttraumatic mortality rate. Furthermore the outcome of the accident patient has affected positively by the developments in preclinical part. By extension of the emergency doctor and rescue helicopter network the rescue time have been shortened and the preclinical treatment improved significantly. The increasing preclinical therapy, calculated volume therapy, primary intubation, thoracic drainage etc., has also decrease the mortality. To improve the treatment of polytrauma patients in specialized trauma centers interdisciplinary teams and technical equipments and facilities were established. The polytrauma patient is admit to a trauma room of the emergency department where the specialty doctors are waiting.

Keywords: Trauma care, Incidence of trauma, Advanced-trauma-life-support.

***Corresponding Author:** Milad Shahhossini

E-mail: *milad_shah@hotmail.de*

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