Paragliding related vertebral injuries

Introduction: Paragliding is a common and popular air sport in Switzerland. Because of this, adventurous athletes are taking high risk for having fun and experience in air.

Objective: We performed a retrospective study on vertebral column as well as spinal cord injuries related to paragliding.

Method: Histories of patients of the last one and a half years were examined. There are only few publications on paragliding and related spinal column injuries. There are different classifications of which the most accurate one the Magerl AO classification is, which we used to evaluate our cases.

Results: In total, 16 patients underwent an injury between April 2014 and October 2015, 11 were males and 5 females. The mean age was 38 years. The most frequent broken vertebral body was lumbar 1 (37.5%). Only 13 patients (81.25%) were admitted by search and rescue helicopter in accompany with an emergency physician. 81.25% of all patients crashed when paragliding were primarily examined in the trauma room of which 8 (50%) needed an emergency surgery. In total 5 (31.25%) patients suffered from paraplegia when discharged from hospital after an average hospitalization of 5 days. Those who had a spinal surgery stayed for 9.6 days in average, whereas the conservative treated patients stayed in average for 7.3 days. Surprisingly, 56.25% suffered from isolated vertebral injuries.

Conclusion: Paragliding has high potential for serious injuries leading to spinal injuries. Athletes must be informed, aware of the danger and for further training programs. Also the first responder must perform careful primary survey to provide stabilization of airways – with stifneck -, breathing, circulation and especially demobilize the patient on vacuum mattress or spine board to avoid further injuries during the transfer to a high trauma care centre.

Biography

Henrik C Bäcker has completed medical school at Semmelweis University, Budapest, Hungary. He has performed research at the University Hospital Heidelberg where he submitted his dissertation. Besides research and his work at the Department of General Surgery, Traumatology and Orthopaedics, he is the Team Physician of the American football club Lucerne as well as supervising different competitions. Internationally he is a member of ECOSEP (European College of Sports and Exercise Physicians) and AGA (Society for Arthroscopy and Joint Surgery) to participate in different projects.

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