

To Wear a Helmet When Air boarding?

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During a weekend in the Swiss mountains our patient decided to try air boarding as an alternative to regular sledding. Helmets were not mandatory so he chose not to wear one. After a number of successful runs he lost control and careened head-first into a wall of iced snow. He was unconscious for roughly 2 minutes. Medical staff arrived at the scene quickly and he was immobilized according to advanced trauma life support (ATLS) procedures and airlifted to our hospital. On initial examination he presented a flattened right midface with excoriations from the right tragus to his nose, bony steps to be palpated around both orbits and significant occlusal discrepancy. A body check showed no evidence of further injuries, but his personal history included an old midface fracture as a child with consecutive mandibular dysmorphism which accentuates the slight displacement of the midface. The computed tomography (CT) scan (Figure) demonstrated the LeFort II-type fracture together with a significantly dislocated and fragmented zygoma fracture on the right. A small subarachnoid bleed was noted in the right frontal region and therefore open reduction and internal fixation (ORIF) was performed in a delayed setting via an intraoral and transpalpebral approach. His follow up was uneventful.

Discussion: In the hospitals that serve the central European alps winter is frequently a time of increased trauma-load [1] due to snow-sports accidents. Extremity and the skull and face are the most common areas to be injured. New kinds of sports are being developed all the time, following both technological advances and current fashions. The classic Telemark Ski is followed by tied down, then clipped down pressure release skis, these by carving skis. Sleds have been around for an even longer time in various incarnations. Inflatable versions were developed as snowtubes (inflatable doughnuts either for one or multiple persons) and then as Airboards. These were developed around 2001 as a way of bodyboarding (a style of surfing) on snow.

The sledder essentially lies stomach down on an inflatable pad that has handles attached to its sides and a structured base. It is steered by shifting the driver's bodyweight and can reach speeds in excess of 100km/h.

A pubmed/Cochrane search showed no results for Airboard related facial trauma. It was also not mentioned in the last 10 years if snow sports and trauma are used as search terms. Cundy et al. note that wearing a protective helmet while practicing high-speed snow sports reduces the incidence of head trauma by 60%. It is also lamented that the wearing of helmets is not mandatory.

Our case serves to remind us that helmets should not be considered to be optional for all high-speed sports including most snow sports.