

A compare on snow: Snowboard? Skiing?

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Abstract

Aim: Snowboard and skiing are differnt winter sport methods. This study aimed to compare the two techniques.

Methods: In the 2016-2017 winter season, 108 winter sportmen/women were evaluated for traumas in Palandoken Ski Center/Erzurum. 61 of 108 were ski-user (Group A) and 47 were snowboard-user (Group B).

Results: In Group A, traumas were: 27 knee, 16 elbow, 11 hip and 7 ankle. In Group B: 21 wrist, 11 skull, 9 vertebra, 6 knee. 6 cases have needed intensive care in Group B, and only one in Group A.

Conclusion: Snowboard has balance-active, younger and easy-learning method. Skiing has speedy, prolonged-time, more harder method. Traumas of snowboard may be more mortal than skiing; but skiing more morbid than snowboard.

Keywords: Snowboard, ski, comparing, wintersports

1. Introduction

Snow sports become more favourable in modern life. Parellel to this development snow-sport injuries are tending to increase. Current research examining the impact of mechanism of injury and daily snowfall amounts on injury severity among skiers and snowboarders is limited (Moore, Knerl, 2013).

This study aims to define correlations between injury mechanism and snowfall among skiers and snowboarders. It aims to compare these two snow sport twshniques on injury mechanism and outcomes for health.

2. Methods

In the 2016-2017 winter season, 108 winter sportmen/women were evaluated for traumas in Palandoken Ski Center/Erzurum. Post hoc adjusted analyses and multivariate modeling was used to determine independent predictors of increased injury severity. 61 of 108 were ski-user (Group A) and 47 were snowboard-user (Group B). In Group A, traumas were: 27 knee, 16 elbow, 11 hip and 7 ankle. In Group B: 21 wrist, 11 skull, 9 vertebra, 6 knee. 6 cases have needed intensive care in Group B, and only one in Group A.

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3. Results

Skiing seems to appeal more elder population than snowboard. Skiing needs much more long-time for to gain stability conditions; but snowboard may learn in erlier time than skiing. Learning diagram is parabolic in skiing, and hiperbolic in snowboard. Balancing on skiing is easier than snowboard. Weight-transferring is more harder on snowboard than skiing. Snowboard is a balance pointed sport and skiing is a speed pointed sport. Falling figures are diffent in two sport braches: antero-posterior on snowboard and laterality on skiing. Falling figures is parallel to traumas. Snowboarding injuries more inclined to anterior-posterior/coronal plans traumas, as skull/face, vertebras, wrists and less abdomen. Skiing injuiries more inclined to lateral plans traumas, as knee, hip, elbow, shoulder and less ankles.

4. Discussion

Collisions between snowsport enthusiasts and total trace snowfall predict an increase in injury severity among alpine skiers and snowboarders. Findings from this project may lead to an increased understanding of predictive factors contributing to injury, alter the diagnostic evaluation of patients, provide educational opportunities for alpine enthusiasts, and enhance resort safety initiatives tailored to ambient conditions (Moore, Knerl, 2013).

Another research explored associations between helmet use and head injuries in snowsports by investigating reported snowsport injuries in Western Canada from 2008-2009 to 2012-2013. The key finding was that increased helmet use (from 69% to 80%) was not associated with a reduction in reported head injuries. Over the study period, the average rate of reported head injuries was 0.2/1000 skier visits, with a statistically significant variation ($P < 0.001$). The line of best fit showed an non-significant upward trend ($P = 0.13$). Lacerations were the only subcategory of head injuries that decreased significantly with helmet use. A higher proportion of people who reported a head injury were wearing a helmet than for injuries other than to the head. Skiers were more likely to report a head injury when wearing a helmet than snowboarders ($P < 0.001$ cf. $P = 0.22$). There were significant differences in characteristics of helmet and non-helmet wearers. Helmet wearers were more likely to be: young adults ($P < 0.001$); beginner/novices ($P = 0.004$); and snowboarders ($P < 0.001$), but helmet wearing was not associated with gender ($P = 0.191$). Further research is needed to explore the possible reasons for the failure of helmets to reduce head injuries, for example, increased reporting of head injuries and increased risk-taking combined with over-rating of the helmets' protection (Dickson, Trathen, Terwiel, Waddington, Adams, 2017).

Pediatric snowsport head accelerations are rare and are generally of low magnitude. Those most at risk of a head acceleration >40 g were male snowboarders. Given the recorded speeds in first time participants, increased targeting of novice snowsport participants to encourage education about the use of protective equipment, including helmets, is warranted. Post event recall was not a good indicator of having experienced a head impact. Consideration should be given to raising the standard design speed testing for snowsport helmet protective devices to reflect actual snowsport behaviors (Dickson, Trathen, Waddington, Terwiel, Baltis, 2016).

In 20 Swiss skiing resorts, athletes were interviewed on the slope. In addition, an online survey was conducted. The performance of 12 commercially available back protectors was investigated

by means of mechanical testing. A currently used drop test according to standard EN1621 (motorcycle protectors), testing energy damping was supplemented by penetration tests according to standard EN1077, which reflects snowsport safety concerns. 6 out of 12 back protectors fulfilled the higher safety level defined in EN1621. Protectors making use of energy-absorbing layers performed particularly well. In contrast, hard shell protectors exhibited a higher potential to withstand the penetration test. The surveys confirmed that approximately 40-50% of snowboarders use a back protector. A large majority of users expect protection from severe spinal injury such as vertebral fractures or spinal cord injury. The currently used test standards are fulfilled by many back protectors. Users, however, expect protectors to be efficient in impact scenarios that result in spinal injury, which are more severe than impacts as addressed in the current standards. This study highlights that there is a mismatch between the capabilities of current back protectors to prevent spinal injury in snowboarding and the expectations users have of these protectors (Schmitt, Liechti, Michel, Stämpfli, Brühwiler, 2010).

A prospective case-control study using a nonprobability convenience sample was conducted with data collected via a respondent-completed questionnaire. Subjects consisted of snowboarders with a snowboard-related injury who presented to one of 10 medical centers and physiotherapy clinics in resort medical centers and gateway communities across the Australian snowsport season in 2007. Those presenting with injuries other than wrist fractures acted as the control. The 611 respondents reported 802 injuries (61.3% were males and 51.5% were aged 16-25 years). Protective equipment was worn by 57.0% of respondents. The main reason for not wearing a wrist guard was that they did not see the need; of these, 12.9% experienced a wrist fracture. Most injuries occurred on-piste, in a terrain park, or in a lesson. The main mechanism of injury was falling. The major risk factors for wrist fractures were being less than 16 years of age (OR 3.97, CI 2.54-6.22), being in the alpine area for a holiday (OR 2.77, CI 1.47-5.21), and being a first-day snowboard participant (OR 2.02, CI 1.15-3.64). A direct logistic regression indicated that 3 variables had a statistically significant contribution to the model (being less than 16 years old, being on holidays in the region, and not wearing a wrist guard). The key risk factors in this Australian study reflect other international studies, providing a clear market segment for targeted snowsport safety messages: those less than 16 years old, visitors to the alpine regions, and those not wearing wrist guards (Dickson, Terwiel, 2011).

According to our study, snowboard has balance-active, younger favourable snow sport technique. It has easy-learning method. Skiing has speedy, prolonged-time technique. And also it is more harder method. Traumas of snowboard may be more mortal than skiing; but skiing more morbid than snowboard.

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