Abstract

The title of the master thesis: An Atypical alignment of acromioclavicular joint in ice hockey players and the search of possible causes

Abstract in English languge:

The goal of this thesis is to find out whether atypical acromioclavicular placement of a joint occurs bilaterally in a statistically significant measure with ice hockey players in comparison to a group of individuals who do not play ice hockey professionally and clarify the causes involved in the origin of this placement.

Theoretical findings proceed from the anatomy, kinesiology, physiology and biomechanics of the shoulder string, which enables us to understand the matters of this segment and suggest possible pathological changes influenced by a stereotyped and sportive pressure. Part of the theoretical base are also specific pathologies, which form due to burdening the body segments and occur with ice hockey players.

An experimental group of active ice hockey players (n1 = 100) in the ages of 13-33 without previous injuries in the area of the clavicle (fracture, luxation) and probands took part in the measurements as well as a group of non-ice hockey players, who had never played hockey professionally (n2 = 100) in the same age group.

The measurements were done using the photogrammetric method with the application of a systematic grid and with the help of aspection and palpation of the acromioclavicular joint, further a comparison of prevalence of atypical placement in this segment in the first group (n1) and the second group (n2) was made.

The results have shown that atypical alignment of AC joints occurs significantly more frequently in the group of individuals who play ice hockey professionally rather than those who do not.

Based on the results a detection of possible causes followed, where the main factors affecting this placement are hypertonus and contracted m. trapezius pars cranialis with simultaneously repeating microtraumatisations during side crashes. Protraction of the shoulder and the possibility of wearing an inappropriate protective vest can also be viewed as side factors contributing to this placement.

Keywords:

Acromioclavicular joint, atypical alignment of AC joint, ice hockey

Language work: CZ