

Abstract

Title: Comparison of selected regenerative techniques affecting hip joint range of motion in ice hockey players.

Objectives: The aim of this study is to identify the most effective regenerative technique among those preselected for range of motion in the hip joint. At the same time, to compare each regeneration technique with each other and to determine the quality of regeneration in selected ice hockey players.

Methods: In our work we used the method of analysis and comparison. The method of analysis is used to clarify statistically significant measurement data and the method of comparison is used to compare the individual regeneration techniques. In our work we used sports massage, rolling and massage gun. The Sit and Reach Test (SRT), Passive Straight Leg Raise (PSLR), Maximal Hip Flexion Active Knee Extension (MHFAKE) and Passive Knee Extension Test (PKET) were used to measure range of motion. Additional information on the quality of regeneration of the probands playing ice hockey is provided by a non-standardized questionnaire that concludes this research.

Results: We found a significant increase in hip range of motion with the massage gun ($p=0.004982$). This increased range of motion persisted for three days. Range of motion also increased after application of the foam roller, but the results were analyzed as statistically insignificant. Sports massage did not show significant changes over the course of the measurements. The results of the questionnaire survey indicate irregularity of regeneration and reduced motivation to perform it. However, the probands are aware of its importance and are ready to improve this element. The massage roller was chosen as the most popular massage tool, which is used by the majority of respondents. They highlight its practicality, simplicity and affordability.

Keywords: sports massage, massage gun, foam roller, range of motion