Abstract

Title: Difference in the efficiency of heavy puck and light puck training in midget male ice hockey players

Objectives: The aim of this thesis is to compare the training efficiency of heavy and light puck forehand shooting in groups with different skill levels with focus on short-hand shooting, long-hand shooting and wrist-shooting in midget male ice hockey players.

Methods: Intervention experiment method was used to perform this work, in which two tested groups were compared by ANOVA analysis. The significance of change was determined by *Cohen's d* parameter. The two tested groups consisted of 16 midget male ice hockey players of SK Černošice ice hockey club. The study consists of three measurements of shot speed, shot accuracy and handgrip strength measured before and after the first six-week training cycle and at the end of second six-week training cycle. The shooting training was performed by long swing, short swing and wrist-shot technique using heavy-weight and light-weight pucks. These pucks were used in specific shooting training drills.

Results: Skill-wise technically better equipped players (starting with heavy weight puck program) reported bigger improvement in long swing, short swing and wrist-shot shot speed and accuracy after heavy-weight puck training program than after light-weight puck training program. Skill-wise technically worse equipped players (starting with light-weight puck training program) reported bigger improvement in long swing and wrist-shot shot speed and accuracy after light weight puck training program than after heavy-weight puck training program. Short swing shot speed and accuracy in technically worse equipped players improved after training with heavy-weight pucks. Both groups reported small improvement in handgrip strength after completing both programs, but this improvement was statistically insignificant.

Keywords: ice hockey, shooting training, motor learning, heavy-weight puck, light-weight puck, resistance training, ANOVA