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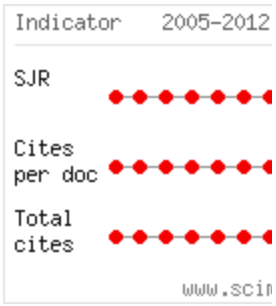

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The effect of aquatic and land plyometric training on strength, sprint, and balance in young basketball players

Hamid Arazi, Abbas Asadi

Abstract

The purpose of this study was to compare the effect of eight weeks of aquatic and land plyometric training on leg muscle strength, 36.5 and 60 meters sprint times, and dynamic balance test in young male basketball players. Eighteen young male basketball players (age=18.81±1.46 years, height=179.34±6.11 cm, body mass=67.80±9.52 kg, sport experience=4.8±2.47 years) volunteered in this study and divided to three groups; aquatic plyometric training (APT), land plyometric training (LPT) and control group

(CON). Experimental groups trained; ankle jumps, speed marching, squat jumps, and skipping drills for eight weeks and 3 times a week for 40 min. The data were analyzed by one way analysis of variance with repeated measures, a Tukey post hoc testing and independent-sample *t*-test. The results showed there were not any significant differences between the APT and LPT groups in any of the variables tested. Significant increases were observed in posttraining both APT and LPT groups in 36.5-m and 60-m sprint times record compare to pretraining. There was a significant difference in relative improvement between the APT and CON in 36.5-m, 60-m, and one repetition maximum leg press. We conclude that plyometric training in water can be an effective technique to improve sprint and strength in young athletes.

Key words: WATER; LAND;

PLYOMETRIC EXERCISE;
PERFORMANCE

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