



The effect of a plyometric and elastic-band resistance training program on physical fitness and performance of male preadolescence tennis players

پذیرفته شده برای پوستر

شناسه دیجیتال (DOI): 10.22089/SSRC-13TH.2022.4046

کد مقاله: 1185-SSRC-13TH

فایل ارائه شفاهی / پوستر: jpg.1185

نویسندگان

¹Amirhossein Haghghi ; ²Seyed Alireza Hosseini Kakhak ; ³Fatemeh Sakhayinia

⁴Hakim Sabzevari University

⁵Ferdowsi University of Mashhad, Hakim Sabzevari University

چکیده

:Background and aim

Tennis is one of the favorite sports among teenagers. The effect of resistance and plyometric training on this age group has less been investigated. So, the purpose of this study was to examine the effect of two types of plyometric and elastic-band resistance training programmes on physical fitness and performance in male preadolescence tennis players

:Methods

For this purpose, 20 male tennis players aged 11-14 years voluntarily participated in this study and were randomly divided into two groups: 1- plyometric training (PT, n=10) and 2- resistance training (RT, n=10). The training program included six weeks and three times a week. Each training session lasted 60 minutes. Plyometric exercises imposed a range of progressive intensities from low to high-intensity activities. Training volume ranged from 60-foot contacts (first week) to 200-foot contacts (last week). Resistance training was done using the elastic bands in different colors (yellow, red, green, and blue). The repetition and set increased weekly

Before and after the training program, agility (Illinois test), speed (20-meter dash), strength (leg and back dynamometer), anaerobic power (running-based anaerobic sprint test), explosive power (vertical jump), and performance tests (ITN test) were assessed. Data were analyzed using ANOVA test with repeated measures at a significant level of $P < 0.05$

Results: The results showed both PT and RT significantly increased agility, speed, muscle strength, anaerobic power, explosive power, and tennis performance, while there was no significant difference between PT and RT

Discussion: the results of this study showed plyometric training and elastic-band resistance training have a positive and similar effect on the physical fitness and performance of preadolescent male tennis players. So, it is suggested that tennis coaches need to incorporate this training into the routine training program

کلیدواژه ها

"Preadolescence" ; "Tennis" ; "Training" ; "Resistance" ; "Plyometric"

CERTIFICATE

No: 1185-SSRC-13TH Date: 03-09-2022

This is to certify that the following title has been presented as **Poster** at the 13th International Congress on Sport Sciences (ICSSRI 2022) held by Sport Sciences Research Institute of Iran. The published abstract with DOI code is available at the congress website.

Title: The effect of a plyometric and elastic-band resistance training program on physical fitness and performance of male preadolescence tennis players

DOI: 10.22089/ssrc-13th.2022.4046

Author(s): Fatemeh Sakhayinia, Seyed Alireza Hosseini Kakhak, Amirhossein Haghighi

Dr. Ali Kashi
Scientific Secretary

Ali Kashi
13thcong.ssric.ac.ir

Dr. Hossein Zareian
Secretary General

Hossein Zareian

