



The effectiveness of six weeks of plyometric training on dynamic balance and shooting accuracy of basketball players with dynamic knee valgus

Oral Presentation

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Abstract

Introduction: Dynamic knee valgus during jump landing in sports activities is the cause of many acute and chronic knee injuries and can affect the special skills of basketball players (Andreoli et al., 2018; Nowak, Pytel, Molik, & Marszałek, 2019). Therefore, the aim of this study was to evaluate the effectiveness of 6 weeks of plyometric exercises on dynamic balance and shooting accuracy of basketball players with dynamic knee valgus.

Methods: The population of the present study consisted of all male basketball players with dynamic knee valgus in Mazandaran province in the age range of 16 to 20 years. Twenty-four basketball players were purposefully selected and divided equally into experimental and control groups. In addition to their usual exercises, the experimental group performed the plyometric exercises for 6 weeks and 3 sessions per week; the control group did only their usual exercises. After identifying individuals with dynamic knee valgus by the squat test, the Y balance test and the Boddington shooting accuracy test were used to assess dynamic balance and shooting accuracy, respectively.

Results: The results of the present study showed that plyometric exercises have a significant effect on improving dynamic balance ($p = 0.001$) and shooting accuracy ($p = 0.001$).

Conclusion: According to the results of the present study, performing 6 weeks of plyometric exercises has led to improved dynamic balance and shooting accuracy. Therefore, plyometric exercises can be recommended to improve dynamic balance and shooting accuracy in basketball players with dynamic knee valgus. However, this recommendation has been reviewed in order to increase the variables, and for general use of these exercises, more research should be done on other aspects including their long-term effects and their effects on injury and injury prevention.

Keywords

Plyometric training; dynamic balance; shooting accuracy; dynamic knee valgus

Reference:

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