Plyometric Exercises versus Progressive Resisted Exercises in the Treatment of Lateral Ankle Sprain in Athletes

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Abstract

Ankle sprain are the most common injuries sustained by athlete. After an initial ankle sprain, the athlete is susceptible to long term disability, especially without adequate care. The purpose of this study was to compare the effectiveness of using plyometric exercises program versus the progressive resistive program in the treatment of lateral ankle sprain in athletes. Thirty volunteers athletes with age ranged from 20 to 35 years, practicing different types of sports as football, basketball, handball and running, from both sexes with grades I or II unilateral lateral ankle sprain participated in the study, at least 3 weeks after the acute injury. They were randomly assigned to either the plyometric group or the progressive resistive group. Both groups received 6 weeks of training, the first group received plyometric training while the second group received progressive resistive training. Isokinetic strength and a scoring scale of functional performance were tested for both groups before and after the training period. Results showed improvement of isokinetic evertors and invertors peak torques and functional performance of athletes in both groups. However, the improvement in peak torque values for the plyometric group was greater than that of the progressive resistive group, but this difference was not significant. The functional scores of plyometric group were significantly higher than that of progressive resistive group. It was concluded that plyometrics are more effective than progressive resistive exercises in regaining and improving functional performance of athletes after lateral ankle sprain injury, but both types of training are equally effective in improving isokinetic strength. We recommend the use of plyometric training for athletes as it combines both strength and performance enhancement that are essential for participation in any type of sport.

Keywords
Plyometric Exercises, Lateral Ankle Sprain in Athletes, Physical Therapy,