

عنوان مقاله:

EFFECT OF ATHLETIC TAPING AND KINESIOTAPING® ON SOME BIOMECHANICAL ANKLE INJURY RISK FACTORS IN MALE VOLLEYBALL PLAYERS WITH CHRONIC LATERAL ANKLE SPRAINS

محل انتشار:

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خلاصه مقاله:

Introduction: Chronic lateral ankle sprains are common in volleyball players (1). The purpose of the current study was to determine the effect of athletic taping and kinesiotaping® (KT®) on some biomechanical ankle injury risk factors in male volleyball players with chronic lateral ankle sprains. **Experimental:** twelve male volleyball players with chronic lateral ankle sprains (age: 22.04 ± 3.17 years; weight: 79.74 ± 4.56 kg; height: 188.75 ± 5.85 cm) participated in the study. The subjects were asked to perform the landing after a jump in the athletic tape, KT® and without tape conditions. The peak ground reaction forces in three directions (F_x, y, z) and peak and mean compressive and shear mechanical forces of ankle joint were recorded via synchronization of video camera (JVC, 200 Fps) and force plate systems (Kistler, winterthor, 1000Hz) (2). The One-way Repeated Measure of ANOVA was used to test the hypothesis in SPSS software (Version 23). **Result:** Significantly lower (41%) peak negative frontal plane ground reaction force (Inversion Force) was found when ankles were taped with KT® compared to athletic tape during landing ($P=0.03$). However, there was no significant difference between peak forces ($P>0.05$ for all conditions). Also, there were no significant difference in compressive and shear forces between two tapes and KT® and without tape ($P>0.05$ for all variables). The athletic tape led to 45% and 33% significant reduction respectively in peak and mean shear forces compared to without tape condition ($P=0.45, P=0.01$) (figure 1). **Conclusion:** Kinesiotaping® reduced the peak inversion force compared to athletic tape that makes slower loading on frontal plane protective structures such as lateral ligaments of ankle during landing. However, both tapes did not attenuate the vertical, anterior-posterior plane forces and compressive ankle forces compared to without tape landing.

کلمات کلیدی:

Athletic tape- Kinesiotaping- Landing- Volleyball Players- Chronic Ankle Sprain

