

研究業績 英文表記

和文	
表題	バドミントンにおけるオーバーヘッドストローク後のフォアハンド側コートとバックハンド側コートでの片足着地における負荷の違い:3 軸加速度計による新規の研究
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英文	
Title	Loading differences in single-leg landing in the forehand- and backhand-side courts after an overhead stroke in badminton: A novel tri-axial accelerometer research.
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Abstract	Anterior cruciate ligament (ACL) injuries in badminton commonly occur during single-leg landing after an overhead stroke in the backhand-side court. This study compared differences in trunk acceleration and kinematic variables during single-leg landing in the forehand- and backhand-side courts after an overhead stroke. Eighteen female junior badminton players performed two singles games while wearing a tri-axial accelerometer. The moment that over 4g of resultant acceleration was generated was determined using synchronised video cameras. Trunk lateral inclination and hip abduction angles at the point of landing with over 4g of resultant acceleration were analysed. Mediolateral acceleration in the backhand-side court was greater than that in the opposite-side court ($p < 0.001$, ES = 0.840). Both trunk lateral angles were larger than those previously reported in injured participants and the hip abduction angle in the backhand-side court was larger than that in the forehand-side court ($p < 0.001$, ES = 2.357). The lateral and vertical acceleration in the backhand-side court showed moderate-to-strong correlations with the trunk and hip angles. The mediolateral physical demand and high-risk posture in the backhand-side court may be associated with a higher incidence of knee injuries during badminton games.
keyword	Micro-sensor technology; anterior cruciate ligament injury; badminton; mechanism; prevention.

※本データの英文表記は実際の論文上の表記とは異なります。