

研究業績 英文表記

和文	
表題	ジュニア女子バドミントン選手の片脚着地特性と発育に伴う体格変化による影響－片脚ドロップ着地テストと試合中の体幹加速度に着目した短期縦断検討－.
著者名	笹木正悟 ¹⁾ , 永野康治 ²⁾ , 市川浩 ³⁾ .
所属	1)東京有明医療大学、2)日本女子体育大学、3)新潟医療福祉大学
英文	
Title	Characteristics of single-leg landing in junior female badminton players and the effects of growth-related physical changes: a short-term longitudinal study focused on the single-leg drop landing test and trunk acceleration in match situations
Author	Sasaki S ¹⁾ , Nagano Y ²⁾ , Ichikawa H ⁴⁾ .
Affiliation	1) Tokyo Ariake University of Medical and Health Sciences, 2) Japan Women's College of Physical Education, 3) Niigata University of Health and Welfare
Abstract	<p>The purpose of this study was to investigate how one-leg landing characteristics of female badminton players change with development during the junior period in laboratory tests and in game situations. And we examined whether changes in body size during development were related to changes in individual one-leg landing characteristics. Seven junior female badminton players were subjected to two body measurements and a one-leg drop landing test over an observation period of at least one year. The body acceleration during badminton games was measured using an accelerometer, and the frequency of high-acceleration landings with a composite acceleration exceeding 4G and the magnitude of the component accelerations were calculated. There were no significant differences in ground reaction force, trajectory length of center of pressure (COP), and trunk acceleration during the game. On the other hand, the relationship between the two measurements showed strong correlations in vertical maximum ground reaction force, time of maximum ground reaction force, loading rate, frequency of high-accelerated landings in the one-leg landing test, and component acceleration. Furthermore, it was observed that changes in body weight showed a significant correlation with changes in the frequency of high-acceleration events, and changes in BMI showed a significant correlation with changes in COP trajectory length. This suggests that the landing on one leg in lab tests and games in the junior age group is strongly dependent on "individual characteristics", while changes in body size itself may affect landing characteristics.</p>
keyword	single-leg landing, trunk acceleration, growth-related changes

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