研究業績　英文表記

和文	
表題	バドミントンの試合中に大きな体幹加速度を伴う動作とその特性
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英文	
Title	Movements with greater trunk accelerations and their properties during badminton games.
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Abstract	This study aimed to elucidate the movements requiring greater trunk accelerations and its frequencies during badminton games, and compare the acceleration components among such movements. Trunk acceleration was measured using a triaxial accelerometer during badminton games. The moments that generated >4 G resultant acceleration were extracted, and movements consistent with the extracted moments were identified. We calculated the extracted movement ratio and frequency and compared the resultant, mediolateral, vertical and anteroposterior accelerations between the top five extracted movements. There were 1,342 movements that generated >4 G [mean, 7.72 (95% confidence interval, 7.31–8.14) cases/min]. The top five movements were lunging during underhand strokes with the dominant hand side leg, landing after overhand strokes on the dominant and non-dominant hand side leg, and cutting from a split step using the dominant and non-dominant hand side leg. Landing on the dominant hand side leg had a greater resultant acceleration than the other movements and had the greatest impact during the badminton game. Lunging during underhand strokes on the dominant hand side leg had greater mediolateral acceleration than the other movements. These results reflected the properties of badminton.
keyword	Biomechanics; racket sports; wearable sensor; physical load.

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