

原著論文

## 小学校4年生の静止立位姿勢の足圧中心動揺における 試行間および日内間信頼性の検討

Examination of Intra-trial and intra-day reliability for the center of foot pressure in static standing posture of fourth grade primary school students.

溝畑 潤<sup>1)</sup> 小山 廣司<sup>2)</sup> 田路 秀樹<sup>3)</sup>

Jun MIZOHATA<sup>1)</sup> Hiroshi KOYAMA<sup>2)</sup> Hideki TOJI<sup>3)</sup>

### Abstract

The purpose of this study was to examine intra-trial and intra-day reliability of measurement variables for the center of foot pressure (COFP) in static standing posture of fourth grade primary school students. The subjects were 14 boys and 16 girls who were fourth grade primary school students in Hyogo prefecture, Japan. Sixteen measurement variables of COFP were calculated using Gravicorder (GP-5000, ANIMA corporation). The measurement variables of COFP were calculated while they stood on the examining table for thirty seconds under open and closed eye conditions, measured three times with a minute rest between each measurement, and on a separate day once in the morning and once in the afternoon for each subject.

The results indicated that intra-class correlation coefficients more than 0.7 for three times measurements were 5 variables under open eye condition and 8 variables under closed eye condition in 16 variables. Under open eye condition, six variables showed additive errors and nine variables showed proportional errors in the intra-day comparison.

In conclusion, we suggest that it is reasonable to use the first trial as a representative value for the measurement of COFP, and intra-day reliability of measurement variables COFP under close eye condition were superior than under open eye condition in the fourth grade primary school students.

キーワード：小学校4年生, 足圧中心動揺, 信頼性

Fourth grade primary school students, The center of foot pressure, Reliability

### 1. 緒言

我々人間にとって静止立位姿勢はあらゆる動作の基本姿勢といえる(平沢, 1979)。人間は静止立位姿勢を保持する為、主に視覚系、前庭感覚系および体性感覚系の感覚情報をもとに、

得られた情報を大脳および小脳の中枢神経に伝達し適切な運動指令が生成する。その結果、骨格、筋肉などの効果器が機能し姿勢制御を繰り返し行っている(神崎, 2012; 大築ほか, 2011)。また、静止立位姿勢を保持する能力(以

1) 関西学院大学  
2) 関西学院初等部  
3) 兵庫県立大学

*Kwansei Gakuin University*  
*Kwansei Gakuin Elementary School*  
*University of Hyogo*