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**YUZURU NAITO**

Aichi Institute of Technology, Japan

**KATSUNORI FUJII**

Aichi Institute of Technology, Japan

**YUKI KANI**

Aichi Institute of Technology, Japan

**YUSAKU OGURA**

Aichi Institute of Technology, Japan

**TOSHIRO SAKAI**

Chubu University, Japan

**YUKI TAKEYAMA**

Aichi Institute of Technology, Japan

## **CONSTRUCTION OF STANDARDIZATION SYSTEM IN JUDGMENT FOR YOUNG CHILDREN OBESITY AND LEANNESS**

### **Abstract:**

Body composition in children can be measured until about the age of 6 years using the impedance method, but in children below that age the findings are often treated as reference values. However, information on body composition is needed to verify body fatness in early childhood. In this study, we investigated the validity of obesity and leanness Judgment using a simple impedance analysis in young children, by comparing body fat percentage derived with the impedance method and body fatness judged from standard height and weight curves, with the aim of constructing a standardized system for judging obesity and leanness in young children. we constructed a 5-step mean evaluation together with body fat percentage statistics and judged levels of obesity and leanness. For judgments of obesity with regression evaluation of weight against height, we constructed a 5-step regression evaluation chart after deriving valid order regression polynomials, and determined levels of obesity and leanness based on them. The results of comparisons of the distributions of obesity and leanness judgments obtained with the two evaluations using the  $\chi^2$  test showed no significant differences in all subjects from 3 to 5 years old.

### **Keywords:**

Young Children, Obesity and Leanness Judgment, Standardization System, Body Fat Percentage, Regression polynomial

**JEL Classification:** I00, I10, I19