Letter: Association of Z-Score of the Log-Transformed A Body Shape Index with Cardiovascular Disease in People Who Are Obese but Metabolically Healthy: The Korea National Health and Nutrition Examination Survey 2007–2010 (J Obes Metab Syndr 2018;27:158–65)

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Received April 2, 2019
Reviewed April 22, 2019
Accepted May 7, 2019

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Obesity is defined as a state of excessive body fat accumulation. Recent studies have suggested that not only the amount of body fat accumulated but also where fat is accumulated matters in the development of comorbidities of obesity.¹ Although numerous obesity indices to measure body fat have been developed and validated, there is no single index that accurately reflects fat accumulation status in our body that influences cardiometabolic risk.² Body mass index has traditionally been used as the gold standard for the measurement and definition of obesity, but controversy remains due to its failure to reflect abdominal obesity and muscle mass.^{3,4}

In this issue of *Journal of Obesity & Metabolic Syndrome*, Chung et al.⁵ analyzed the association of Z-score of the log-transformed A Body Shape Index (LBSIZ), the modified form of A Body Shape Index (ABSI) developed by Krakauer and Krakauer⁶, which is a new equation for estimating body shape using waist circumference (WC), body weight, and height, with cardiovascular disease (CVD)

in the metabolically healthy obese (MHO) using the Korea National Health and Nutrition Examination Survey (KNHANES) 2007–2010. In this study, increasing LBSIZ showed positive correlations with CVD risk in MHO, metabolically unhealthy non-obese, and metabolically unhealthy obese participants compared with metabolically healthy non-obese participants.

Although the results were novel, the design of the study is somewhat complicated in that they not only looked at CVD risk according to LBSIZ, but also expanded the results across MHO phenotypes, which made the interpretation of the results difficult for readers. Dividing the study into two papers (that is, one that analyzes the CVD risk according to LBSIZ tertiles, and another analyzing the association of LBSIZ across MHO phenotypes) would have improved the interpretation of LBSIZ implications. In addition, it was unclear whether the authors made any attempt to create a new equation for ABSI using KNHANES data, as Krakauer and

Krakauer⁶ did. A new equation using WC, body weight, and height that reflects body fat in Koreans would be very useful and could be applied in many studies. Nevertheless, the study's results are novel and useful for expanding the implications of ABSI and LBSIZ.

CONFLICTS OF INTEREST

The author declares no conflict of interest.

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