

Response: 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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Clinical outcomes of metabolically healthy obesity (MHO) remain controversial in the previous studies using body mass index (BMI) for defining obesity.¹ This might be due to the limitations of BMI, such as an inability to discriminate between muscle and fat or to identify fat location.² Recent studies reported that A Body Shape Index (ABSI) has an inverse relationship with fat-free mass and can be used for screening sarcopenic obesity.^{3,4} Therefore, ABSI can be a useful screening tool for identifying high risk individuals with poor clinical outcomes in the MHO group. In this study, we used Z-score of the log-transformed A Body Shape Index (LBSIZ) and found a positive association with the risk of cardiovascular disease (CVD; 1st vs. 3rd tertile: odds ratio, 1.478; 95% confidence interval, 1.192–1.831). In the MHO group, only the subjects in the highest tertile of LBSIZ showed a significantly higher risk of CVD com-

pared to the reference group with metabolically healthy and no obesity with the first tertile of LBSIZ. In addition, LBSIZ had a linear relationship with CVD risks in all obesity phenotypes.

LBSIZ is a measure of abdominal obesity based on waist circumference for a given weight and height. It is a modified version of ABSI that can be used regardless of sex and ethnicity. Furthermore, considering its normal distribution of values, LBSIZ can improve clinical usefulness in actual practice by providing appropriate cutoff values to identify individuals with high risk of CVD. LBSIZ has a limitation in the complicated calculation process, but we provided a template for calculating with waist circumference, weight and height, derived from a representative sample of the Korea National Health and Nutrition Examination Survey.⁵ Additional template for other races and ethnicities in the United States will be available soon.

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In order to establish the superiority and clinical usefulness of LBSIZ, further prospective studies are needed for other ethnic groups. Further studies of the association between LBSIZ and body composition will also be required to understand the underlying pathophysiological rationale of LBSIZ and to assess CVD risk with LBSIZ.

CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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