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Letter to Editor

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Abdominal height measures and body mass index

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Dear Editor,

I read two recent manuscripts with novel practical ways for obesity assessments [1,2]. Okeahialam BN *et al*. compared the ability of body mass index (BMI) and of abdominal height (AH) measurements to predict diagnosis of hypertension and diabetesin 31 males [1]. The authors utilized anabdominometer, which is the new tool to get the AH measurements. The cut-off values considered in their screening for cardiovascular disease (CVD) risk were respectively 25 cm, 30 kg/m^2, and 140/90 mmHg for AH, BMI, and arterial blood pressure [1]. They concluded that AH is better than the traditional anthropometric measures for evaluation of CVD risks, and suggested its routine utilization to establish validation and acceptance [1]. Chung W *et al*. changed the body shape index (BSI) by the z-score of the log-transformed BSI (LBSIZ), and utilized it as a new tool for measurement of CVD risks in aKorean survey [2]. The authors emphasized LBSIZ as a better option to evaluate abdominal obesity, compared with BMI, and predict arterial hypertension and health-related quality of life impairment [2]. LBSIZ, different of BMI, can distinguish muscle and fat, predicting the percentage of body fat and allowing more accurate evaluation of the risk of cardiac or cerebrovascular events [2]. They suggested yet that LBSIZ be evaluated in relation to predict morbidity and mortality [2]. As a whole, the data of both studies seem to indicate that BMI determinations should be complemented by new assessments considered more adequate to measure abdominal fat [1,2].

Comments about three Danish cohorts, from 1976-1978 through 2003-2013, are herein included because the BMI associated with the lowest all-cause mortality increased by 3.3 [3]. They focused the controversy about BMI associated with lowest all-cause mortality because this index has increased and the prevalence of CVD risk factors decreased in obese people [3]. As in Danish population the officially estimated BMI of ≥ 25 is 47%, and the corresponding proportion was 56% in the cohort 2003-2013, investigation is needed to explain the change [3]. And whether confirmed by other researchers the definition of overweight would be revised [3]. Worthy of note was the optimal BMI in relation to mortality of the overweight category in the cohort of 2003-2013; phenomenon observed in the whole population sample (optimal BMI, 27) and among the never-smokers without history of CVD or cancer (optimal BMI, 26.1). Whether this is confirmed by other researches the definition of overweight must be revised [3].

The commented manuscripts have contributed to the knowledge about some current weaknesses involved in the anthropometric evaluation exclusively performed with base on BMI, and additional researches should be done to better validate the findings after 1990s.

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