

Waist Circumference and Body Mass Index Variability and Incident Diabetic Microvascular Complications: A *Post Hoc* Analysis of ACCORD Trial (*Diabetes Metab J* 2022;46:767-80)

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We appreciate the keen interest of Dr. Yun Kyung Cho in our published article, “Waist circumference and body mass index variability and incident diabetic microvascular complications: a *post hoc* analysis of ACCORD trial,” [1] and are also grateful for the opportunity to further discuss our work.

We agree with the deductions of Dr. Yun Kyung Cho on the findings of our study as they accurately reflect our findings. As noted by Dr. Cho, our study points out that high fluctuation in adiposity as measured by the weight indices over a period of time could be a detrimental risk for the development of microvascular complications among individuals with type 2 diabetes mellitus (T2DM). Hence, patients with T2DM could decrease their risk of developing microvascular complications by maintaining optimal body weight. Surprisingly though, while this observation was true for neuropathy and nephropathy risk, no significant relationship was observed between high weight variability and retinopathy risk, suggesting that weight variability may exhibit a different relationship with microvascular complication risk, as also shown by Gao et al. [2].


Although the exact mechanism underlying the relationship

between high weight variability and risk of microvascular complication is yet to be clearly defined, we agree with the explanation of Dr. Cho as a plausible mechanism linking the exposure (weight variability) and outcome (microvascular complication). Indeed, it has been suggested that remodeling of adipose tissue, which characterizes body weight fluctuation, may provoke the release of proinflammatory adipokines [3-5] and contribute to the development of adverse health outcomes including diabetes and its related microvascular complications among patients with T2DM.

Although our study was limited by a lack of recommendation of an optimal range of weight variability that may not be deleterious for patients with T2DM or suggesting strategies for maintaining an optimal body weight that may be preventative against the risk of developing microvascular complications, it highlighted the importance of not only managing baseline weight but also its fluctuations over time. Hence, in agreement with Dr. Cho, patients with T2DM should be encouraged to maintain a stable weight to reduce their risk of microvascular complications.

Thank you once more for your interest in our work.

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CONFLICTS OF INTEREST

No potential conflict of interest relevant to this article was reported.

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