



What is the connection between body height and flow-mediated vasodilation?

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We read with great interest the paper by Harada et al. [1]. In the article, the authors showed a positive relationship between flow-mediated vasodilation and body height and called attention to individuals with a short stature to prevent cardiovascular events.

As Yano pointed out [2], it is well known that body height is associated with the augmentation index, which demonstrates the degree of pressure wave reflection. This is obvious because short stature denotes short propagation distance. When the propagation distance is short, the reflection pressure wave returns to the heart earlier, and the augmentation index becomes high. Practically, we reported that there is a negative relationship between age and the augmentation index in children [3], although pulse wave velocity increases with age, even in children. In the article, we also showed a negative relationship between the augmentation index and body height in children, and proved that body height is one of the most important factors that determine the influence of reflected pressure waves on the heart.

Harada and colleagues previously reported a negative relationship between the augmentation index and flow-mediated vasodilation [4], although they did not cite the research [4] in their article [1]. Many papers have reported that endothelial dysfunction coexists with increased arterial stiffness in healthy subjects and those at high-risk for cardiovascular disease [5], although the mechanism has not been fully elucidated. From the negative relationship between systolic blood pressure and body height and the

positive relationship between diastolic blood pressure and body height in their paper [1], we infer that there is a negative relationship between the augmentation index and body height in their participants. We would like to know the actual relationship between the augmentation index and body height in their study.

Compliance with ethical standards

Conflict of interest The authors declare no competing interests.

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