

Epicardial Fat Thickness is Associated with Abnormal Left Ventricle Geometry in Newly Diagnosed Hypertension

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Author's reply,

We thank all of the authors for their valuable comments, and we were delighted to see your interest to our study, entitled "Epicardial Fat Thickness is Associated with Abnormal Left Ventricle Geometry in Newly Diagnosed Hypertension" published in the May issue of *Acta Cardiologica Sinica* 2018;34:280-287.¹

1. You are right about the D vitamin effect on ventricular geometry. Green et al showed that Vitamin D affects left ventricular structure by increasing left ventricle mass and myocardial contractility by affecting calcium flux and calcium homeostasis.² In another study we showed "25-Hydroxyvitamin D levels are associated with increased ventricular and arterial stiffness as well as systolic blood pressure in healthy subjects".³ In this study LV stiffness, parameters such E/A and E/E' that calculated by the ratio of transmitral flow velocity to annular velocity. Vitamin D deficient (< 20 ng/mL) group showed higher E/E' values which means lower vitamin D associated ventricular stiffness.

Also, in another study we showed "Lower serum 25-hydroxyvitamin D level is associated with impaired myocardial performance and left ventricle hypertrophy

in newly diagnosed hypertensive patients".⁴ According to this study vitamin D deficient group (vitamin D < 20.00 ng/mL) have higher left ventricular mass index value that associated with left ventricular hypertrophy. In this present study we did not measure vitamin D level from the study participants. If vitamin D status were found similar in the groups may be results would be more valuable.

2. As we denoted in the method section, secondary hypertension reasons such as thyroid dysfunction (hypothyroid and hyperthyroid) are excluded.

Consequently, we did not examine vitamin D level in the study and patients with thyroid dysfunction were excluded from the study.

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