

## A1c Variability Can Predict Coronary Artery Disease in Patients with Type 2 Diabetes with Mean A1c Level Greater than 7 (*Endocrinol Metab* 2013;28:125-32, Eun Ju Lee et al.)

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Effects of hemoglobin A1c (HbA1c) variability on the microvascular and cardiovascular complications in type 1 diabetes have been reported. However, effect of HbA1c variability on coronary artery disease in type 2 diabetes was not described, especially when using such a sensitive diagnostic method like coronary angiography, as in the article by Lee et al. [1]. Therefore, although this is a retrospective observation study, we find that A1c variability as an independent predictor of coronary artery disease in type 2 diabetic patients with A1c level greater than 7% has great diagnostic value.

However, the authors did not present renal function or urine albumin excretion of the subjects, which can be important confounders in the study outcome. Not only advanced renal dysfunction, but also early change like microalbuminuria is well known as an independent factor of cardiovascular disease outcome [2]. In addition, it was recently reported that A1c variability was independently associated with the development of microalbuminuria in patients with type 2 diabetes [3]. Therefore, additional analysis including renal status might demonstrate a more clear relationship between A1c variability and coronary artery disease. Soon after the publication by Lee et al. [1], a contrary result was released that A1c variability had no

major impact on macrovascular complications in patients with type 2 diabetes, which is in opposition to nephropathy [4].

### CONFLICTS OF INTEREST

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

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