

Second, we did not include an explanation regarding comparison of variables with an abnormal distribution in the statistical analysis section because a non-parametric test was not required in this study. The data examined demonstrated normal distribution.

Third, the term “partially sufficient” is based purely on the subjective assessment of the patients. Training is provided to patients before discharge, but patients sometimes do not feel that it is fully adequate. For example, the patient may be advised to diet. The proper contents of this diet may be explained, but it may not be sufficiently explained why this diet and adherence to the diet are important. For this reason, patients may not maintain the recommended diet. In our clinical experience, we have encountered reactions such as “I have the diet, but I do not know why this diet is important and I do not know what will happen if I do not observe the diet.” Of course, we cannot generalize in such a situation; however, this is why we included a section termed partially sufficient.

Fourth, we did not include in a cardiac rehabilitation section as we focused on what factors affected patients’ post-discharge healthy lifestyle behaviors.

The patients were already involved in a regular program with cardiac rehabilitation. However, in situations where there is no cardiac rehabilitation program available, it is important for patients to develop a healthy lifestyle for themselves at home. If obstacles to healthy lifestyle behaviors are determined, it will be helpful to the planning of patient follow-up and training. This was our main goal.

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### Vitamin D level and endothelial dysfunction

Dear Editor,

We read the article published by Akkuş et al. about the relationship between vitamin D level, spontaneous reperfusion, and Synergy between PCI with Taxus and Cardiac Surgery (SYNTAX) score in patients with acute myocardial infarction with ST-segment elevation (STEMI) with great interest. The presence of chronic liver or kidney disease, and the use of medications such as vitamin D, calcium supplements, or corticosteroids, which can affect vitamin D level, were defined as exclusion criteria. It was concluded that a lower vitamin D level may be negatively correlated with spontaneous reperfusion.<sup>[1]</sup>

There are several studies suggesting an association between obesity and vitamin D deficiency. Adipocytes have vitamin D receptors, and vitamin D deficiency induces the differentiation of preadipocytes into adipocytes and accelerates adipogenesis. In addition,

an increased level of parathyroid hormone as a consequence of vitamin D deficiency leads increased calcium inflow to the adipocytes. This process also results in adipogenesis. As a fat-soluble vitamin, vitamin D is stored in adipose tissue and the serum level of vitamin D is lower in obese patients. It has also been demonstrated that weight loss is associated with an increase in the level of vitamin D.<sup>[2]</sup> Obesity is associated with accelerated atherosclerosis, dyslipidemia, endothelial dysfunction, and a prothrombotic state.<sup>[3]</sup> Therefore, we think that the body mass index of patients should be evaluated as a factor in both vitamin D level and endothelial dysfunction.

Drugs such as statins and angiotensin-converting enzyme (ACE) inhibitors also play a role in vitamin D level. Statin use increases the vitamin D level, and an increased vitamin D level can be responsible for some pleiotropic effects of statins. Yavuz et al.<sup>[4]</sup> reported that rosuvastatin use was associated with an increase in vitamin D level. ACE inhibitors are frequently used medications in patients with hypertension, diabetes, and

chronic kidney disease. ACE inhibitors improve endothelial function but can decrease vitamin D level.<sup>[5]</sup>

To conclude, vitamin D level has an important effect on endothelial and cardiovascular functions, of course, but conditions such as medication use and obesity, which can affect both vitamin D level and endothelial function, should be taken into account while assessing the relationship between vitamin D and cardiovascular functions.

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