TRANSCATHETER AORTIC VALVE IMPLANTATION (TAVI) has rapidly become the novel therapeutic option for severe aortic stenosis (AS).1,2,3 Recently, the PARTNER 3 trial4 showed the superiority of TAVI over surgical aortic valve replacement even in patients at low surgical risk. In addition, Popma, et al. showed that self-expanding valve in low-risk patients was also noninferior to SAVR with respect to death from any cause or disabling stroke in patients at low surgical risks.5 Therefore, the indication of TAVI may expand more in the near future globally.

At this time, it is very important to identify the prognostic determinants after TAVI. Regarding the prognostic determinants after TAVI, physicians have come to believe that parameters reflecting the general condition of a patient are very important. For example, Shimura, et al. reported that the clinical frailty scale was a useful marker for predicting long-term mortality of patients undergoing TAVI.6 Regarding nutritional status, the Geriatric Nutritional Risk Index was reported to be associated with clinical outcomes after TAVI.7

In this issue of International Heart Journal, Taniguchi, et al investigated the association between appetite at the time of hospital discharge and long-term clinical outcomes in 139 patients (105 good appetite and 34 lower appetite patients) who underwent transfemoral TAVI.8 They defined good appetite group as dietary intake rate > 90% just before hospital discharge, whereas the less appetite group as dietary intake rate ≤ 90% before discharge. The primary outcome was two-year MACCE as a composite of cardiovascular death, myocardial infarction, any coronary revascularization, history of hospitalization due to heart failure, and disabling acute cerebral infarction. In a survival analysis, they observed that the less appetite group got MACCE more frequently (Log Rank $P = 0.01$). In multivariable Cox regression analysis, less appetite was a significant predictor of two-year MACCE (HR 5.26, $P < 0.01$). Taniguchi, et al reported that appetite status before discharge was significantly associated with long-term outcomes after TAVI.

Although many researchers are interested in the relationship between nutritional status and the outcome after TAVI, there have been limited data on the association between appetite and outcome after TAVI.

There are several concerns with this study. First, Taniguchi, et al. defined good appetite group as dietary intake rate > 90% just before hospital discharge. However, the cut off value was not well validated. Other cut-off value such as 70%, 80% and the other definition might change the result. Second, in this study, only appetite on the day before discharge is evaluated. It may be interesting to evaluate the appetite changes during hospitalization or appetite before TAVI. Third, it may be better to adjust include the STS score in the multivariate analysis. The background factors were almost the same between the two groups, but the STS score was significantly different. STS score can be a confound factor. Fourth, other covariable factors such as cardiac rehabilitation frailty and ADL can affect the results.

While this study has some limitation, this study is clinically important. This study examined appetite as a factor of pre-clinical status before malnutrition status and indicated that appetite is a prognostic determinant after TAVI. Evaluating appetite is simple and easy to use in the clinical practice. If further study will confirm the results of this study, appetite can be a useful indicator of risk stratification of patients after TAVI. We look forward to further research in the future.

Disclosure

Conflicts of interest: There is no conflict of interest or financial disclosure pertinent to the content of the manuscript.

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