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SARCOPENIA AND HEART VALVE SURGERY

To the Editor:

We read with great interest the article by Okamura and colleagues,¹ who evaluated the impact of sarcopenia on the clinical outcomes after heart valve surgery. They concluded that preoperative sarcopenia defined from the psoas muscle area was associated with long-term survival after valve surgery. Before generating current results, however, we would like to direct readers' attention to some methodologic points.

First, the method of diagnosing sarcopenia in the study of Okamura and colleagues,¹ which was designed retrospectively, was only defined by the calculation of the psoas muscle area at the level of the top of the iliac crest by means of computed tomographic (CT) scan. According to the European Working Group on Sarcopenia in Older People,² sarcopenia is the presence of both low muscle mass and low muscle function (strength or performance). The "presarcopenia" stage is characterized by low muscle mass without impact on muscle function. Okamura and colleagues¹ did not report data for the muscle function of patients and instead classified them as having sarcopenia without any muscle function measurements. Standardization of the terminology is crucial for generalizing the results of the studies. The assignment of sarcopenia in this study therefore seems to be suboptimal.

Second, Okamura and colleagues¹ used the psoas muscle area at the level of the top of the iliac crest calculated by means of CT in all patients to predict low muscle mass. Several techniques, including CT analysis, are available for muscle mass measurement; however, a validated muscle mass measurement made by CT involves a total body muscle mass scan and not a regional measurement of a single muscle mass, such as the psoas muscle.² To the best of our knowledge, the methodology used by Okamura and colleagues¹ has not been validated against the criterion

standards. Moreover, for measurement of muscle mass, the European Working Group on Sarcopenia in Older People consensus report does not advise the use of segmental muscle area calculation such as that described in the article of Okamura and colleagues.¹ The estimation of muscle mass in this study thus also seems to be suboptimal.

We believe that readers of the *Journal* should consider these points when evaluating current results.

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References

1. Okamura H, Kimura N, Tanno K, Mieno M, Matsumoto H, Yamaguchi A, et al. The impact of preoperative sarcopenia, defined based on psoas muscle area, on long-term outcomes of heart valve surgery. *J Thorac Cardiovasc Surg.* 2019; 157:1071-9.e3.
2. Cruz-Jentoft AJ, Baeyens JP, Bauer JM, Boirie Y, Cederholm T, Landi F, et al; European Working Group on Sarcopenia in Older People. Sarcopenia: European consensus on definition and diagnosis: report of the European Working Group on Sarcopenia in Older People. *Age Ageing.* 2010;39:412-23.

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HOW IS PREOPERATIVE SARCOPENIA ASSESSED IN PATIENTS UNDERGOING HEART VALVE SURGERY?

Reply to the Editor:

We read the letter to the Editor by Safer and colleagues regarding the diagnosis of sarcopenia and measurement of muscle mass, with great interest. We fully agree with Safer and colleagues that diagnosis of sarcopenia needs to be comprehensively evaluated. As they point out, the European Working Group on Sarcopenia in Older People (EWGSOP) defined sarcopenia as the presence of both low muscle mass and low muscle function (strength or performance).¹ Both the muscle mass and muscle function of the patient should be taken into consideration when evaluating the impact of sarcopenia on clinical outcomes. To define sarcopenia in patients undergoing valve surgery in our study, we measured the mass of the psoas muscle but not muscle function, because the study was retrospective in design. It is therefore possible that some patients at the presarcopenia stage (low muscle mass with normal muscle function) were included in the sarcopenia group in our study. In any future prospective

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