



Takotsubo Syndrome in Octogenarians and Nonagenarians — Reply —

Ito et al discuss the possibility of a missed diagnosis and/or underestimating the existence of takotsubo syndrome (TTS) among elderly patients because of possible cognitive impairment and dementia in some of these patients. However, we would like to make it clear that that is not the main point of our paper.¹ None of our octogenarian and nonagenarian study patients had any cognitive impairment or dementia, although the reason for the reduced prevalence of subjective symptoms in the very elderly patients remains unclear. A most important and interesting finding of our study is that emotional triggers of TTS became infrequent with advancing age, particularly in octogenarians and nonagenarians.¹

Furthermore, the definition of TTS in our study was based on the revised version of the Mayo Clinic diagnostic criteria,^{2,3} together with International Takotsubo diagnostic criteria for this condition.⁴ Although the presence of coronary artery disease per se was not considered as an exclusion criterion, all of our 148 study patients underwent coronary angiography and did not show any total occlusion of the coronary artery suggestive of acute coronary syndrome. Although we agree that it is sometimes difficult to perform coronary angiography in elderly patients, we should be scientifically precise with currently available diagnostic criteria in clinical research. Therefore, of 209 consecutive patients initially diagnosed with TTS, 61 were excluded from our study because of a lack of coronary angiography information.

In addition, the number of patients with cognitive impairment and dementia may increase in our aging society, and we agree that we should be careful in the diagnosis of TTS in elderly patients with cognitive impairment and

dementia. Furthermore, and more precisely, the detection of typical electrocardiographic (ECG) changes is essential in the diagnosis of TTS in octogenarians and nonagenarians; indeed, Ito et al identified their case of TTS based on ECG.⁵ Therefore, we would like to once again emphasize the importance of getting an ECG recording in all patients on admission, basically because of a low prevalence of subjective symptoms in these very elderly patients. This is indeed another important message from our study.

IRB Information

This study was approved by the Ethics Committee of Chikamori Hospital (Reference no. 368).

References

1. Nishimura Y, Kubokawa S, Imai R, Nakaoka Y, Nishida K, Seki S, et al. Takotsubo syndrome in octogenarians and nonagenarians. *Circ Rep* 2021; **3**: 724–732.
2. Scantleburg DC, Prasad A. Diagnosis of takotsubo cardiomyopathy: Mayo Clinic criteria. *Circ J* 2014; **78**: 2129–2139.
3. Prasad A, Lerman A, Rihal CS. Apical ballooning syndrome (tako-tsubo or stress cardiomyopathy): A mimic of acute myocardial infarction. *Am Heart J* 2008; **115**: 408–417.
4. Ghadri JR, Wittstein IS, Prasad A, Sharkey S, Dote K, Akishi YJ, et al. International expert consensus document on takotsubo syndrome (Part I): Clinical characteristics, diagnostic criteria, and pathophysiology. *Eur Heart J* 2018; **39**: 2032–2046.
5. Ito M, Fukui K, Miyamoto N, Kato H, Miki K, Shiobara K, et al. Takotsubo cardiomyopathy in a bedridden patient with dementia and communication difficulties due to Alzheimer's disease. *J Rural Med* (in press).

Yu-ki Nishimura, MD
Sho-ichi Kubokawa, MD
Kazuya Kawai, MD, PhD
Naohisa Hamashige, MD, PhD
Yoshinori Doi, MD, PhD

Department of Cardiology (Y.N., S.K., K.K., N.H., Y.D.),
Cardiomyopathy Institute (Y.D.),
Chikamori Hospital, Kochi, Japan

Received February 28, 2022; accepted March 1, 2022; J-STAGE Advance Publication released online March 17, 2022

Mailing address: Yoshinori Doi, MD, PhD, Cardiomyopathy Institute, Chikamori Hospital, 1-1-16 Ohkawasuji, Kochi 780-8522, Japan. E-mail: ydoi@chikamori.com

All rights are reserved to the Japanese Circulation Society. For permissions, please e-mail: cr@j-circ.or.jp
ISSN-2434-0790

