



CME INSTRUCTIONS: ROLE OF MULTIMODALITY IMAGING IN TAKOTSUBO CARDIOMYOPATHY

Please read the instructions below before proceeding. All available Journal CME articles are available at the ASNC Learning Center (<https://asnccommunity360.net>).

STATEMENT OF NEED

The following gaps in knowledge have been identified in clinical practice demonstrating the learner's need to acquire the skills and strategies presented in this CME activity.

- Takotsubo cardiomyopathy is a transient cardiac syndrome, typically with LV apical akinesis and basal hyperkinesis.
- The pathophysiology of takotsubo cardiomyopathy is not fully understood, but there are several postulated etiologies including physical and mental stress.
- Takotsubo cardiomyopathy is classically described as apical ballooning, but other types such as midventricular, basal and focal type have been reported.
- Regional wall motion abnormalities due to takotsubo cardiomyopathy are revealed by echocardiography or left ventriculography.
- ^{18}F -FDG PET and ^{123}I -BMIPP SPECT are used to assess myocardial metabolism.
- ^{123}I -MIBG SPECT is used to evaluate the presynaptic sympathetic innervation of the heart.
- Wall motion abnormalities, myocardial edema and the late gadolinium enhancement (LGE) are useful to distinguish Takotsubo cardiomyopathy from acute coronary syndrome.

TARGET AUDIENCE

This activity is targeted at imaging professionals and is intended to provide the latest information on clinical practice and cutting-edge scientific advances in nuclear cardiology and cardiac imaging.

OVERALL PURPOSE

The purpose of this CME activity in the Journal of Nuclear Cardiology is to increase the learners' competence in the application of nuclear cardiology strategies in clinical practice.

OBJECTIVES

After reading and reflecting upon this article in the Journal Nuclear Cardiology, the learner should be able to:

- Recognize the etiology and pathophysiology of takotsubo cardiomyopathy.
- Learn about the imaging techniques that contribute to the diagnosis of takotsubo cardiomyopathy.
- Identify the role of cardiac PET and SPECT tracers, in particular, ^{18}F -FDG, ^{123}I -BMIPP and ^{123}I -MIBG.
- Learn the utility of CMR to distinguish takotsubo cardiomyopathy from acute coronary syndrome.

ACCREDITATION AND CONTINUING EDUCATION CREDIT

Physicians

The American Society of Nuclear Cardiology is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The American Society of Nuclear Cardiology designates this Journal-based CME activity for a maximum of 1 *AMA PRA Category 1 Credits*TM. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Technologists

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PRINCIPAL FACULTY AND THEIR CREDENTIALS

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The following author(s) who were involved in the development of this activity reported no financial relationships: **Osamu Manabe, MD, PhD, Masanao Naya, MD, PhD, Noriko Oyama-Manabe, MD, PhD, Kazuhiro Koyanagawa, MD and Nagara Tamaki, MD, PhD**

The following members of the JNC Editorial Staff and ASNC staff who were involved in the planning and development of this activity reported no financial relationships: **William Van Decker, MD, FASNC and Wendy Passerell**

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CONTINUING EDUCATION TERM OF APPROVAL

Release Date: September 12, 2019

Expiration Date: September 11, 2020

METHOD OF PARTICIPATION

To receive a statement of credit, participants must successfully complete the post-test quiz and evaluation questions after reading and reflecting on the article. The participant selects the single most appropriate answer for each post-test question. A score of 75% or higher is needed to pass the post-test quiz. If less than 75% of the questions were correct, the participant will be notified and may resubmit the quiz with modified answers up to three times.

Estimated time of completion is 1 hour.

To complete the post-test and evaluation, please visit the ASNC Learning Center at <https://asnc.communty360.net>.

BIBLIOGRAPHY

Bibliographic sources are cited throughout the article and a full bibliography is provided at the end of the article to provide you with further study resources on this topic.

MEDIUM OR COMBINATION OF MEDIUM USED

Internet Explorer (Latest Version)

Firefox (Latest Version)

Google Chrome

Safari (Latest Version)

Adobe Acrobat Reader

Internet Explorer is not supported on the Macintosh Mac OS 10.4

Windows 7 or above

PROCESSING FEES

ASNC members may claim continuing education credits at no charge. Non-members will be charged \$50 per activity.

ACKNOWLEDGEMENT OF COMMERCIAL SUPPORT

This activity has no commercial support.

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