J Cardiovasc Imaging. 2021 Oct;29(4):373-374
https://doi.org/10.4250/jcvi.2021.0074
pISSN 2586-7210·eISSN 2586-7296

Journal of Cardiovascular Imaging JCVI

Editorial

Novel Imaging Parameters for Right Ventricular Dysfunction after Pericardiectomy in Constrictive Pericarditis

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▸ See the article "Cardiac Decompression by Pericardiectomy for Constrictive Pericarditis: Multimodality Imaging to Identify Patients at Risk for Prolonged Inotropic Support" in volume 29 on page 361.

Received: May 3, 2021
Accepted: May 10, 2021

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Conflict of Interest
The author has no financial conflicts of interest.

Pericardiectomy is the only definitive treatment option for patients with chronic constrictive pericarditis who have persistent and prominent symptoms, though it poses significant perioperative morbidity and mortality.[1] A mortality rate between 4 and 8 percent was noted in patients who underwent pericardiectomy between 1977 and 2012.[2-4] Right ventricular (RV) failure is one of the major complications of early post-pericardiectomy.[5] Although a rapid increase in venous return to the right heart after pericardial decompression is a presumed cause of RV failure at early post-pericardiectomy,[5] preoperatively elevated gamma-glutamyl transferase, decreased protein, and high-grade tricuspid regurgitation could predict RV failure after surgery.[6][7]

In this issue of *Journal of Cardiovascular Imaging*, Azzu et al.[8] devised a "pericardial score" system using multimodality imaging parameters that could predict RV function and the clinical course of patients post-pericardiectomy. The combined "pericardial score" system consisted of epicardial fat thickness < 5 mm (1 point), thickened pericardium > 5 mm (1 point), and pericardial calcification on computed tomography (1 point). Unfortunately, because of its high prevalence, early postoperative RV dysfunction could not be predicted effectively by "pericardial score." On the contrary, patients with a high "pericardial score," i.e., lower epicardial fat thickness, a calcified and thickened pericardium, and smaller RV cavity size, were at increased risk for prolonged inotropic support.

Despite inhomogeneity of imaging modalities performed in the study, it has advantages over others in that it provided novel imaging parameters that can help identify patients at higher risk for RV dysfunction early post-pericardiectomy.

In conclusion, Azzu et al.[8] found that RV dysfunction is prevalent and transient during the early period of post-pericardiectomy, and predictors for prolonged inotropic support include a smaller preoperative RV cavity size and a novel pericardial score based on epicardial fat thickness, pericardial calcification, and pericardial thickness.

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