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Reply to Letter to the Editor: "Tricuspid Regurgitation Worsening After Pericardiectomy in Tuberculosis Constrictive Pericarditis: An Overlooked Prognostic Concern"

LETTER TO THE EDITOR
REPLY

To the Editor,

The authors[1] are thanked for their interest and valuable comments on the article "Tricuspid Regurgitation in Tuberculous Constrictive Pericarditis Underwent Pericardiectomy."[2] Tuberculosis infection is the main cause of constrictive pericarditis (CP) in developing countries, accounting for approximately 38%-83% of all CP cases. Currently, pericardiectomy is the only effective treatment for CP.[3] Studies have shown that both CP combined with tricuspid regurgitation (TR) and worsening TR due to pericardiectomy reduce long-term survival. This phenomenon that deserves attention in the preoperative evaluation by surgeons.[4-7]

There is no consensus on the mechanism of coexisting TR in CP. It is believed that TR is secondary to the structural and functional remodeling of the patient's right atrium and right ventricle during the pathological processes of CP and that the patient's combination of underlying diseases, such as arrhythmia, pacemaker implantation, and chronic lung disease, is an important influencing factor. In tuberculous CP, the presence of inflammatory factors that damage the valvular apparatus deserves further research and discussion.

In CP, worsening TR is associated with right ventricular systolic dysfunction. Meanwhile, impaired right ventricular systolic function complicates the treatment of pericardiectomy and reduces long-term patient survival. This makes a detailed assessment of right ventricular morphology and function particularly important.

Currently, echocardiographic assessment of right ventricular systolic function is mainly based on right ventricular fractional area change, tricuspid annular plane systolic excursion, and right ventricular S' tissue Doppler velocity, as mentioned in the article, but it can be considered using speckle tracking imaging, 3-dimensional echocardiography or even magnetic resonance imaging to assess right ventricular morphology, local myocardial function, and degree of fibrosis in detail.

Thank you again for agreeing with the viewpoint of the article. For tuberculosis CP, we will prospectively study the patients through various aspects, including clinical, blood biochemical, multimodal imaging, and prognostic aspects, to understand the mechanism of worsening TR and the factors and extent of right ventricular myocardial injury. This will provide more information for surgical strategies and improve the long-term prognosis of patients.

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