

Letter to the Editor



Septal Bounce or Ventricle Interdependence in Constrictive Pericarditis: Same or Different

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Conflict of Interest

The author has no financial conflicts of interest.

► See the article “The Clinical Course of Tuberculous Pericarditis in Immunocompetent Hosts Based on Serial Echocardiography” in volume 50 on page 599.

I have read the recent article by Kim et al.,¹⁾ on ‘The Clinical course of Tuberculous Pericarditis in Immunocompetent Hosts Based on Serial Echocardiography’ with great interest. I want to congratulate the authors for addressing tuberculous pericarditis, which continues to be the most common cause of pericardial constriction in counties like India and Africa. Author have meticulously found ventricular interdependence as the initial parameter of improvement.

Constrictive pericarditis develops after persistent pericardial inflammation and ultimately fibrosis. This process might be acute, subacute, or chronic. In acute phase, inflammation predominates and in chronic phase, fibrosis predominates. However, there are few points which need further clarification:

- A. Ventricular interdependence is the right and left ventricle interaction with each other. The concept of ventricle interaction was first described by Bernheim in 1910 and later, Henderson and Prince were the first investigators to demonstrate interdependence between the ventricles in an ejecting heart.²⁾ Ventricular interdependence increases in constrictive pericarditis and presents as septal bounce, which is paradoxical bouncing motion of the interventricular septum during early diastole, initially directed towards and then away from the left ventricle.³⁾ It can be seen in echocardiography, cardiac computed tomography, and cardiac magnetic resonance imaging. Surprisingly, author has taken ventricular interdependence and septal bounce as two different markers in constrictive pericarditis. Ventricular interdependence was the initial marker to show improvement and septal bounce was the last marker to show improvement. It needs clarification as septal bounce is a manifestation of exaggerated ventricle interdependence, both would improve simultaneously and not at different points.
- B. It is essential to evaluate the chronicity of disease. The chronicity of the disease can be assessed through patient's clinical features, cardiac imaging, especially calcification on chest X-ray, computed tomography & cardiac magnetic resonance imaging.⁴⁾ Transient constrictive pericarditis can last for weeks to a few months in the patients recovering from acute effusive pericarditis.⁵⁾ In this study, 22 patients were having constrictive physiology on echocardiography, and no other modality was used to assess chronicity of constrictive

pericarditis. It can be speculated that these patients might be in transient constrictive pericarditis and improved after anti-inflammatory drugs.

REFERENCES

1. Kim MS, Chang SA, Kim EK, et al. The clinical course of tuberculous pericarditis in immunocompetent hosts based on serial echocardiography. *Korean Circ J* 2020;50:599-609.
[PUBMED](#) | [CROSSREF](#)
2. Smith ER, Tyberg JV. Chapter 3. *Ventricular interdependence*. In: *The Right Ventricle*. Konstam MA, Isner JM, editors. Boston (MA): Kluwer Academic Publishers; 1988. p.37-52.
3. Coylewright M, Welch TD, Nishimura RA. Mechanism of septal bounce in constrictive pericarditis: a simultaneous cardiac catheterisation and echocardiographic study. *Heart* 2013;99:1376.
[CROSSREF](#)
4. Agstam S, Singh P. A calcified heart. *Int J Clin Med Images* 2019;6:1000647
5. Chang SA, Oh JK. Constrictive pericarditis: a medical or surgical disease? *J Cardiovasc Imaging* 2019;27:178-86.
[PUBMED](#) | [CROSSREF](#)