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On Ventricular Aneurysms, Thrombi, and COVID-19



Reply

To the Editor:

We read with interest the letter by Dr Babokin¹ and agree with his points regarding resection of periinfarct myocardium that may harbor foci of ventricular tachycardia. The technique he describes is one of several to manage postinfarct left ventricular (LV) aneurysms, ranging from the simple linear technique to endoventricular circular patch plasty, as we described.² The choice of technique should be patient-specific, with the salient points being restoration of normal LV volume and appearance as much as possible, exclusion of akinetic segments and nidus for thrombus, and preservation of mitral competency. When the LV cavity is opened, resection of the transition zone can be performed with visualization and surgical judgment.

Dr Babokin has published an innovative technique³ in which preoperative electroanatomic mapping is used to mark the transition zone with endocardial radiofrequency ablation lesions. Results were excellent in his series of 156 patients. While we have considered such a technique, we also consider that caution is warranted in cases with LV thrombus due to embolic risk.

As a note of contemporary relevance, we anticipate that the incidence of such cases may increase as a consequence of coronavirus disease 2019 (COVID-19). At our institution, we have seen a rise in postinfarct-related complications, such as ventricular septal defects, due to delay in seeking care. This anecdotal experience and concern are supported by studies worldwide, with the proportion of late presentations of ST-elevation myocardial infarctions increasing from 4.8% to 50%.⁴ Further complicating this is the propensity of COVID-19 to incite thrombotic complications. Ventricular thrombi have been described as one manifestation, including biventricular thrombi complicating acute myocardial infarction.⁵ Thus, discussions regarding this complex cardiac lesion, as well as other mechanical sequelae of myocardial infarction, may become more and more relevant.

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The Right Thoracic Incision: The Importance of Children's Thoracic Deformity and Thymus Dysplasia



To the Editor:

We have greatly enjoyed reading the published article by Chen and colleagues.¹ They evaluated the safety and efficacy of the intraoperative device closure of a perimembranous ventricular septal defect (VSD) using the right thoracic minimal incision to right ventricle approach, and revealed a simple and effective procedure that does not require partial splitting of the sternum. In recent years, an increasing number of surgeons have explored minimizing operative trauma and improving cosmetic results. Satisfactory exposure, an invisible site, and the shortest possible length of the incision remained the focus of exploration. However, chest deformity or breast dysplasia after the procedure has been considered in evaluating the procedure,² especially for young girls and children. In addition, Fan and coworkers³ confirmed that bioresorbable poly-L-lactide sternal pins reduced anteroposterior sternal displacement and sternal dehiscence and were accompanied by significant improvement of an early sternal fixation. Another concern is that methods for transthoracic device closure through a lower midline sternotomy should also be suitable for children aged less than 1 year with a 3- to 4-mm VSD. Altogether, to decrease the incidence of chest deformity or thymus dysplasia after a right thoracic incision, we suggest that excessive division or incision of thymus tissues and intercostal muscles should be avoided during the operation, and that an attempt be made to stay away from the thymus area or close to the anterior axillary line, especially for children and young girls. For patients with a minimal incision in the lower sternum, we recommend using bioresorbable poly-L-lactide sternal pins to reduce the incidence of thoracic deformity. Moreover, the study might be more convincing if the sample size could be increased, especially for patients aged less than 1 year with a 3- to 4-mm VSD, because these patients may need not just treatment, but also the right thoracic ventricle approach.