Reviewer's report

**Title:** Epicardial unipolar radiofrequency ablation for left ventricular aneurysm related ventricular arrhythmia

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**Reviewer:** Sebastian Stec

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Authors reported the case of a 62-year-old man with typical triple-vessel lesions and apical left ventricular aneurysm combined with ventricular tachycardia. Off-pump coronary artery bypass was performed combined with epicardial unipolar radiofrequency ablation and linear closure of left ventricular aneurysm.

The authors conclude that left ventricular aneurysm closure plus epicardial unipolar radiofrequency ablation during OPCAB may be an effective and feasible therapy for patients with ventricular aneurysm and preoperative ventricular arrhythmia (VA).

The case is very interesting in the field of very difficult management strategy including drug failure, borderline recommendation for ICD and contraindication for percutaneous ablation due to LV thrombus.

However, perioperative evaluation of CABG and its lack of effect on VA is weak predictor of further success. Moreover, aneurysm closure could be sufficient to reduce VA burden or possibility for sustained VT and VF. Therefore, I would use term “is supposed to be beneficial/may be beneficial” rather than “is effective”.

I will recommend to clarify more limitation to this observation – lack of prior and postoperative programmed electrical stimulation or EPS, lack 12-lead Holter monitorings to at least localized the most often PVC to be associated with aneurysmal region and lack of ICD to monitor clinical or presumed clinical non-sustained or sustained VT in follow-up. To be honest authors declare that patient could not afford ICD therapy.

But those limitation should be taken into account by future use this method and maybe randomized trial to performed ablation + aneurysm closure vs aneurysm closure alone.

Moreover, we do not know whether aneurysm closure/cabg themselves or very frequent PVC ablation (or those three mechanisms) reduce substantially cardiomyopathy. I recommend add this observation to the manuscript.

Some clinical data need some clarification: Past medical history included sustained VT (?) or non-sustained VT, polymorphic VT, VT was documented on 12-lead ECG (?) or not. It’s worth to be stated by authors that mural thrombi is an contraindication for percutaneous endocardial ablation and further percutaneous access for epicardial ablation is limited (therefore the best option is to performed
simultaneous CABG/ablation/Aneurysm closure).

The same VA QRS morphology could be only screened and proved by 12-lead Holter monitoring.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Declaration of competing interests:**

I declare that I have no competing interests