

## Antiarrhythmic Drugs Are not the Only Option in Electrical Storm: Extracorporeal Membrane Oxygenation as a Life-saving Alternative. Response



**Los fármacos antiarrítmicos no son la única opción en la tormenta eléctrica: el oxigenador extracorpóreo de membrana es una alternativa. Respuesta**

### To the Editor,

In response to Martins et al., we would like to thank the comments of our colleagues from the *Centre Hospitalier Universitaire de Rennes*. We have also read their study with great interest,<sup>1</sup> in which 26 patients with arrhythmic storm and cardiogenic shock were treated with venoarterial extracorporeal membrane oxygenation (VA-ECMO). The authors reported 50% overall survival with a low rate of major complications (19.2%). Interestingly, 61.5% of patients achieved stable sinus rhythm after VA-ECMO implantation, both survivors and nonsurvivors. The authors conclude that the rapid recovery of rhythm is necessary but not sufficient to predict good outcomes.

We completely agree with this statement and believe that, in this kind of patient, VA-ECMO support must be considered early to avoid deep cardiogenic shock. Moreover, in our hospital, the cardiovascular intensive care unit is fully staffed by cardiologists, so treatment of arrhythmic storm progresses promptly from antiarrhythmic drugs or overdrive pacing to deep sedation and VA-ECMO support, which is placed by the interventional cardiologist and then managed in the cardiovascular intensive care unit.

In our case series,<sup>2</sup> all patients but one achieved sinus rhythm after VA-ECMO support. Overdrive pacing was necessary to reach electrical stability in the remaining patient. Furthermore, we consider that, after stabilization, all patients should undergo ventricular tachycardia (VT) ablation, especially those with prior myocardial infarction, since it has been demonstrated that developing sustained VT often predicts recurrent episodes. Several studies have shown that catheter ablation reduces recurrent VT and implantable cardioverter-defibrillator shocks. It has been reported that VT recurred in 35% of patients after catheter ablation compared with 55% on antiarrhythmic therapy.<sup>3</sup>

We recognize the lack of strong evidence in this particular field but we fully agree with Martins et al. VA-ECMO support must be systematically considered in patients with refractory arrhythmic storm and sufficiently early to avoid deep cardiogenic shock, which will make other therapies futile.

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