



## EDITORIAL COMMENT

## Portuguese electrophysiology: Consistent development

### Eletrofisiologia Portuguesa: um desenvolvimento consistente

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In this issue of the *Journal*, Cortez-Dias et al. report data for 2017 and 2018 from the Portuguese National Registry on Cardiac Electrophysiology.<sup>1</sup> These reports, issued by the Portuguese Association of Arrhythmology, Pacing and Electrophysiology (APAPE) and the Portuguese Institute of Cardiac Rhythm (IPRC), have been published regularly since 1999.<sup>2</sup>

This nationwide, observational, retrospective, voluntary registry now includes data from all centers performing interventional electrophysiology in Portugal.

It could be said that the main purpose of the registry has been completely accomplished, to the extent that it describes in detail the number and type of ablations performed, the technologies used and the characteristics of the centers in terms of equipment and personnel. The high level of participation by the centers is notable: for these two years all centers provided data, which enables the registry to remain highly reliable and representative of Portuguese electrophysiology.

Most of the centers (72%) are in public hospitals, which accounted for 84% of all ablations performed in 2018, and most of the public and all of the private centers are concentrated in the Greater Lisbon and Greater Porto metropolitan areas, reflecting the widespread asymmetries found in the country.

The good news is the increasing number of procedures, which reached a peak in 2018, in particular the number of complex procedures including ablation of atrial fibrillation (AF) and ventricular tachycardia (VT). These procedures are performed using three-dimensional navigation systems in all of the Portuguese centers, and although point-by-point radiofrequency ablation is still the most commonly used technique, pulmonary vein cryoablation for AF has shown significant growth and accounted for 20% of procedures. AF ablation is at present the most common ablation by substrate and the absolute and relative numbers of AF ablations are expected to grow in the coming years.

Using as a benchmark the European Heart Rhythm Association (EHRA) White Book,<sup>3</sup> which compiles electrophysiology data from all European countries, we can say that Portuguese electrophysiology has performed very well in terms of the number of ablations, particularly complex ablations per 100 000 population. Although still far from the podium, we are positioned in the middle of the field, ahead of countries like Spain.

The complication rate reported is extremely low but there might be under-reporting of adverse events, given that reporting of complications is optional and data collection is retrospective.

Newer technologies are on the way, and Portuguese electrophysiology is ready to incorporate these developments in the near future, which include new energy delivery systems

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(laser and electroporation), catheters for one-shot ablation, and three-dimensional navigation systems that will help us pursue the Holy Grail of zero fluoroscopy.

### Conflicts of interest

The author has no conflicts of interest to declare.

### References

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