

## IMAGE IN CARDIOLOGY

# Flecainide toxicity in a patient with a pacemaker

## Toxicidade por flecainida em doente com pacemaker

Sonia Peribáñez<sup>a,\*</sup>, Mario Martínez-Fleta<sup>a</sup>, Pablo M. Corredoira<sup>b</sup>

<sup>a</sup> Department of Cardiology, Miguel Servet University Hospital, Zaragoza, Spain

<sup>b</sup> Department of Cardiology, Cliniques Universitaires Saint-Luc, Bruxelles, Belgium

Received 31 January 2025; accepted 14 February 2025

Available online 2 June 2025



We present the case of an 81-year-old male with tachycardia-bradycardia syndrome, alternating between atrial fibrillation and persistent atypical atrial flutter. No structural heart disease was identified. The patient has a dual-chamber pacemaker in DDDR-ADIR mode and was being treated with flecainide 100 mg every 8 hours and atenolol 50 mg every 24 hours.

The patient presented to the emergency department with general malaise and profuse sweating lasting one day, without palpitations. The initial electrocardiogram (ECG) (Figure 1) showed a regular wide-QRS tachycardia at 145 bpm, leading to a diagnosis of ventricular tachycardia in the emergency department. A pacemaker evaluation revealed

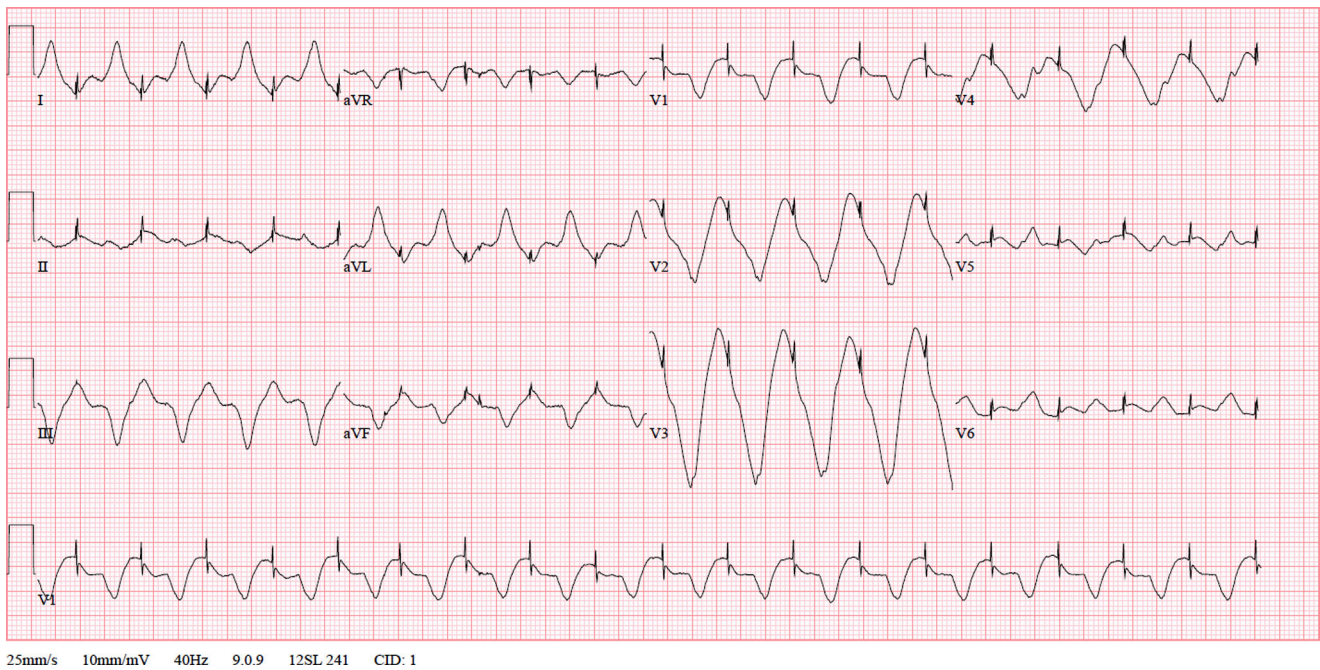
atrial tachyarrhythmia with pacemaker-mediated ventricular stimulation and a highly aberrant paced QRS. Due to suspected flecainide toxicity, the drug was discontinued, and treatment with bicarbonate was initiated.

Subsequent pacemaker interrogation revealed an episode of atrial flutter with a rate below the threshold for mode switching.

Flecainide is a Class IC antiarrhythmic drug according to the Vaughan Williams classification, widely used for the treatment of atrial tachyarrhythmias in the absence of structural heart disease. It primarily acts by blocking sodium channels, and its main electrocardiographic manifestation is the widening of the QRS complex, as observed in this case.<sup>1,2</sup>

\* Corresponding author.

E-mail address: [soniaperibel@gmail.com](mailto:soniaperibel@gmail.com) (S. Peribáñez).



**Figure 1** 12-Lead electrocardiogram. Atrial flutter at 145 bpm with pacemaker-mediated ventricular stimulation and a highly aberrant paced QRS in the context of flecainide toxicity.

## Ethical approval

An anonymized clinical case is presented. Informed consent was obtained from the patient.

## Funding

No funding was received for the preparation of this scientific article.

## Conflicts of interest

There are no conflicts of interest from any of the authors.

## References

1. Medciclopedia. Flecainide in vademecum [Internet]. Iqb.es; 2011. Available from: <https://www.iqb.es/cbasicas/farma/farma04/f023.htm> [cited 29 January 2025].
2. Estévez Briongos J. From P to T: step-by-step electrocardiography. 1st ed. Madrid: Marbán Libros; 2021.