

Cardiac arrest in an older male patient treated with flecainide for atrial fibrillation

Tiziana Ciarambino^{a,*}, Rosario Bottone^b, Gennaro Sansone^b, Mauro Giordano^b

^a Hospital of Marcianise, ASL Caserta, Italy.

^b University of Campania, L. Vanvitelli, Naples, Italy.

Abstract

Flecainide is a class I antiarrhythmic used for supraventricular tachyarrhythmias with mild adverse reactions. We present a case report in a 78-year-old male that came to the emergency department with atrial fibrillation and was subsequently treated with flecainide. During the infusion, the patient went into cardiac arrest. Cardiopulmonary resuscitation was performed until the return of spontaneous circulation was achieved after 1 min and 40 seconds. Conclusion. Some trials, like The Cardiac Arrhythmia Suppression Trial (CAST), consider flecainide to be safe, but our case report, together with several other published reports brings attention to the use of flecainide in pharmacologic cardioversion of atrial fibrillation as a cause of cardiac arrest.

Keywords: Older man, atrial fibrillation, emergency department, cardiac arrest, flecainide

Introduction

Atrial fibrillation (AF) accounts for more than one-third of all hospitalizations for arrhythmia. Flecainide is a class I antiarrhythmic drug used for supraventricular tachyarrhythmias. Current European guidelines recommend the use of flecainide in selected groups of patients with AF who do not have structural heart disease. Potential cardiac adverse effects of flecainide include pro-arrhythmia, conduction abnormalities and negative inotropic effects. Dizziness is the most frequent non-cardiac side effect, followed by blurred vision and difficulty focusing; these are almost all mild, transient and tolerable [1-3]. In addition to their limited efficacy, anti-arrhythmic drugs are sometimes poorly tolerated and some of the side effects are serious. The CAST trial considered the drug flecainide safe, but one studied reported that potentially lethal ventricular tachycardia developed in 11 percent of encainide-treated patients and 16 percent of flecainide-treated patients [4].

Case report

We present a case report in a 78-year-old male that came

to the emergency department complaining of palpitations. His medical history described a previous event of AF without other pathologies or the use of prescribed medications or illicit drugs. At the examination, there were no signs or symptoms other than the arrhythmic peripheral pulse. The laboratory tests (such as renal and liver function, glycemia, etc) were normal. The electrocardiogram showed AF at 140 HR. Echocardiography ruled out any cardiopathy. Treatment with flecainide was started with a bolus (150 mg/15 mL) followed by a continuous infusion with 300 mg of flecainide in G5% 250 mL. During the infusion, extreme bradycardia developed followed by cardiac arrest. Cardiopulmonary resuscitation, according to AHA guidelines, was performed until the return of spontaneous circulation was achieved after 1 min and 40 seconds.

Conclusion

This case report describes cardiac arrest in an older patient treated with flecainide for AF. Several trials, including the CAST trial, considered flecainide to be safe. However, several reports [5,6] are in line with our observations, and there may be an increased risk of proarrhythmic events in this real-world study of flecainide used for the treatment of AF. In particular, flecainide can induce QT prolongation leading to torsades de pointes and consequently cardiac arrest [7]. The findings suggest that further investigation into the safety of flecainide for the treatment of older patients with AF is warranted. Trials may be needed to bet-

* Corresponding author: Tiziana Ciarambino

Mailing address: Hospital of Marcianise, ASL Caserta, Italy.

Email: cavcon@ntplx.net

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ter describe the safety of this drug in the setting of atrial fibrillation especially in patients at older ages.

Declarations

Conflict of interest: The authors declare no conflict of interest.

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