

Cardioembolic acute cerebral micro-infarcts in the context of atrial fibrillation after low-dose intravenous infusion of lacosamide

Álvaro Beltrán Corbellini, Paula Pérez Torre, Velina Nedkova Hristova, Beatriz Zarza Sanz, Adriana Celdrán de Castro García, Fernando Rodríguez Jorge, Juan Luís Chico García, Paloma Parra Díaz, Francisco Javier Buisan Catevilla

Department of Neurology, Hospital Universitario Ramón y Cajal. Madrid, Spain

Received May 16, 2019; Accepted December 04, 2019

Literature review in a nutshell.

- AF and AFI are very rare adverse events regarding the use of LCM.
- Two well-documented cases of AF/AFI in relation to the administration of LCM have been reported to date.
 - One consisted of AFI while on LCM 600 mg/day orally and the other of AF at the end of a 200-mg IV infusion over 60 minutes.
 - One of them reported risk factors for developing AF.
 - Both required suspension of LCM for cessation of AF/AFI.
 - One started on warfarine until cessation of AF.
 - None of the episodes were associated with clinical complications.

AF: atrial fibrillation. AFI: atrial flutter. LCM: lacosamide. IV: intravenous.
DeGiorgio, 2010; Kauffman et al., 2013.

Current case report.

- AF at the end of a 200-mg IV infusion over 20 minutes.
- Risk factors for AF in our patient were older age, male gender, obesity, hypertension, valvular disease, first-degree atrioventricular block and left anterior fascicle block.
- Our patient required suspension of LCM and a loading dose of amiodarone for cessation of AF.
- The patient started on apixaban indefinitely.
- Cranial MRI showed four acute silent infarctions, five days later.

AF: atrial fibrillation. LCM: lacosamide. IV: intravenous.

Discussion.

- The appearance of AF may lead to severe clinical complications (stroke) and management changes that are not risk-free (anticoagulation).
- Global risk for developing arrhythmias should be assessed before administering LCM.
- A 12-lead EKG should be obtained before starting treatment with LCM since it is worthwhile to assess the cardiac risk profile.
- We do not recommend ECG monitoring during and after IV LCM infusion.
- If AF appears in the context of LCM therapy, we recommend the discontinuation of therapy and assessment of the necessity of starting indefinite anticoagulant therapy according to a specific evaluation of embolic risk.