

EuroSciCon Conference on Clinical Cardiology and Cardiovascular Disease

May 24-25, 2018 London, UK

Interv Cardiol J 2018, Volume: 4 DOI: 10.21767/2471-8157-C1-003

## LONG QT SYNDROME WITH TORSADE IN A PATIENT WITH Atrial fibrillation taking antihistamines — case report

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**Introduction:** Long QT syndrome (LQTS) is characterized by prolonged QT interval. We report the case of a patient with acquired LQTS developed after treatment of atrial fibrillation (AF).

**Description:** A 73-year-old male patient sought emergency care complaining of intense dyspnea, orthopnea, and nocturnal paroxysmal dyspnea with progressive worsening. He was anticoagulated and in use of amiodarone due to atrial fibrillation with programming for electrical cardioversion (CVE). After initial treatment for heart failure without improvement he was transferred to the intensive care unit (ICU). In the ICU, the CVE was performed. About one hour after CVE, the patient had recurrent episodes of syncope with wide QRS tachycardia but he responded promptly to electrical cardioversion with complete recovery of consciousness. Because of the difficulty in controlling his arrhythmia, a 24-hour ECG Holter was used. The report showed sinus rhythm conducted with a wide QRS complex and a QT interval  $\geq$  676 m illiseconds. The patient underwent implantation of a trans venous pacemaker with elevated heart rate and use of intravenous magnesium sulphate with suppression of the arrhythmia.

**Exams:** ECG: AF with controlled heart rate. Echocardiogram: Left ventricular systolic dysfunction, FE=28%. During evolution, the patient had a stable arrhythmia, but progressed with nosocomial pneumonia, multiple organ failure, and death after about 50 days.

**Conclusion:** The case reported and the literature review brings to light the discussion of acquired long QT syndrome as a consequence of the combination of antiarrhythmic drugs (amiodarone) and antihistamines (dexchlorpheniramine and betamethasone). Antihistamines drugs caused LQT and torsade de pointes are not a new conception, but although it is not well remembered in daily practice. An apparently innocuous association, however, their different mechanisms of action on cardiac ion channels overlap, predisposing patients to acquired LQTS and its feared complications.

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