



# ABS011

## AMIODARONE INDUCED QT<sub>c</sub> PROLONGATION : A CASE REPORT

**Malini Muraleedharan Nair**<sup>1\*</sup>,  
HishamAhamed<sup>2</sup>,  
Akhila Sivadas<sup>3</sup>.

<sup>1</sup>Pharm.D Final Year,  
Amrita School of  
Pharmacy, AIMS , Kochi;

<sup>2</sup>Assistant Professor  
Cardiology Department,  
AIMS, Kochi;

<sup>3</sup>Clinical Pharmacist,  
Department of Oncology  
AIMS, Kochi.

Anti-arrhythmic drugs like amiodarone have the potential to prolong QT intervals which can result in Torsades de pointe arrhythmia.

Eventhough it has few pro-arrhythmic effects, it has a rare chance (<2%) of causing QT prolongation which is associated with TdP (torsado de pointes). If TdP is rapid or prolonged, it can lead to ventricular fibrillation and sudden cardiac arrest.

We report on a case of a 50 year old male who is admitted with Atrial Flutter (2:1 AV block). He was started on oral Amiodarone (400mg/day) and was planned for elective DC version. His serial ECG was monitored and he converted to sinus rhythm (HR-56/min) on the third day. Subsequent ECGs showed progressive prolongation of the QT<sub>c</sub> interval (calculated with Bazet's formula). Amiodarone dose was reduced (100mg/day) and further monitoring revealed gradual normalisation of the QT<sub>c</sub> interval.

Review of the patients medication did not reveal the presence of any other drug capable of prolonging QT<sub>c</sub>. It has been well recognized that a prolonged QT interval (congenital or acquired) on the surface ECG is associated with an increased risk of TdP and sudden death.

By far, the most common cause of acquired long QT syndrome is drug induced with anti -arrhythmic drugs being the most commonly implicated. Co- administration of multiple drugs especially with other QT prolonging drugs and hepatic cytochrome P450 CYP3A4 iso-enzyme inhibitors must be avoided. Health care providers must be careful about the adverse effect (TdP) which is a potentially fatal condition.

**Keywords: Amiodarone, Atrial Flutter, TdP, Bazet's Formula**