## Case Report

# Dronedarone for Recurrent Ventricular Tachycardia: A Real Alternative?

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**Abstract**

Sustained ventricular tachycardia (VT) is an important cause of morbidity and sudden death in patients with dilated cardiomyopathy. Although ICD effectively terminate VT episodes and improve survival, shocks reduce quality of life, and episodes of VT predict increased risk of heart failure and death despite effective therapy. Patients suffering recurrent VT episodes remain a challenge. Antiarrhytmic therapy reduces VT episodes, but it is associated with serious adverse events, and disappointing efficacy. Catheter ablation has emerged as an important option to control recurrent VT, but major procedure-related complications, and even death, are still issues to concern. And even with these armamentaria, some patients still have recurrent VT episodes and ICD shocks. We report on a patient with non-ischemic dilated cardiomyopathy and recurrent ventricular tachycardia resistant to multiple antiarrhytmic agents, in whom dronedarone was effective in completely suppressing ventricular tachycardia episodes.

**Keywords:** Ventricular Tachycardia, Dronedarone

**Background**

Sustained ventricular tachycardia (VT) is an important cause of morbidity and sudden death in patients with dilated cardiomyopathy. Although ICDs effectively terminate VT episodes and improve survival, shocks reduce quality of life, and episodes of VT predict increased risk of heart failure and death despite effective therapy. Patients suffering recurrent VT episodes remain a challenge. Antiarrhythmic therapy reduces VT episodes, but it is associated with serious adverse events, and disappointing efficacy. Catheter ablation has emerged as an important option to control recurrent VT, but major procedure-related complications, and even death, are still issues of concern. And even with this armamentarium, some patients still have recurrent VT episodes and ICD shocks. We report on a patient with non-ischemic dilated cardiomyopathy and recurrent ventricular tachycardia resistant to multiple antiarrhythmic agents, in whom dronedarone was effective in completely suppressing ventricular tachycardia episodes.

## Case Report

An 81-year-old man with non-ischemic dilated cardiomyopathy and severe ventricular systolic dysfunction (EF 30%) underwent biventricular ICD implantation (St Jude Promote AccelTM), after suffering sudden cardiac death due to ventricular tachycardia. Baseline rhythm was atrial fibrillation with slow ventricular response. He was on amiodarone, beta-blocker and angiotensin receptor blocker at the time of implantation, without heart failure symptoms.

The patient continued to have symptomatic VT episodes with appropriate ICD discharges. Amiodarone was increased, but it was discontinued due to severe hypothyroidism. He was placed on sotalol 80 mg twice a day, but soon stopped after patient developed QT prolongation and asthenia. Patient was switched to propafenone 300 mg 3 times daily, but again side effects (diarrhea, nausea-vomiting) led to therapy discontinuation. Symptomatic VT episodes with multiple morphologies requiring ICD discharges and/or emergency room visits continued, despite optimization of ATP therapy.

Procainamide was initiated with better tolerance, although patient continued to be symptomatic with frequent VT episodes. At this point in time, an echocardiogram showed marked left ventricular systolic function impairment (EF 15%). Of note, cardiac function in consecutive echocardiograms had initially remained stable after ICD implantation. The rest of pharmacological agents had not been modified. After myocardial ischemia was ruled out, a catheter ablation procedure was planned, but patient refused invasive procedures. Trying dronedarone was offered, with clear understanding of its off-label and compassionate use. After informed consent, patient was switched to droneradone 400 mg twice daily. On follow-up, patient reported significant improvement of his symptoms, with just one episode of VT successfully treated with ATP therapy over the next 12 months, and systolic function recovery to prior 30% coinciding with the decrease of arrhythmic burden. Significant reduction of ICD shocks before and after droneradone initiation is shown in **Figure 1**.

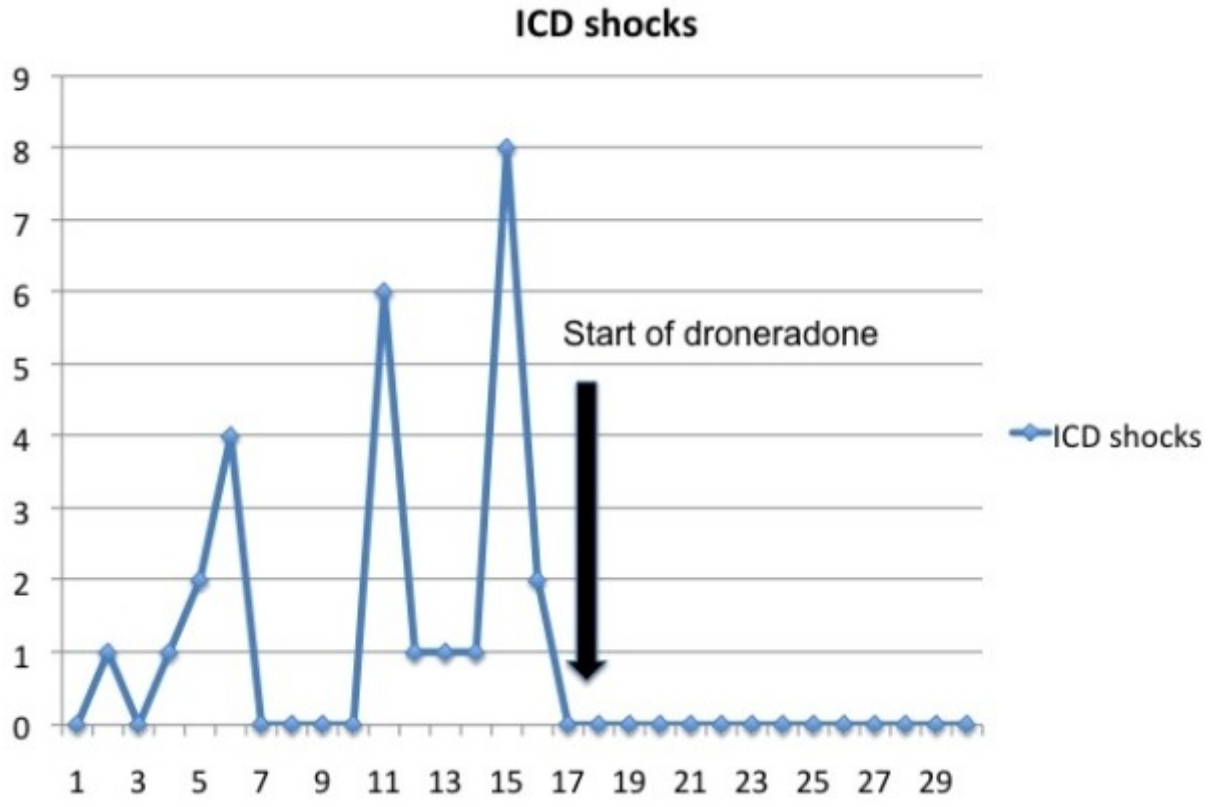


**Figure 1**