

A Young Patient with Dilated Cardiomyopathy and Out-of-Hospital Sudden Death: From Randomized Trials and Guidelines to Real Life Patients.

Part I. Case Presentation.

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A real-life case is presented in three parts. The first part is the case presentation. The second part is a discussion. Here we argue why we think we treated him right, certainly according to contemporaneous guidelines. The third part will surprise you.

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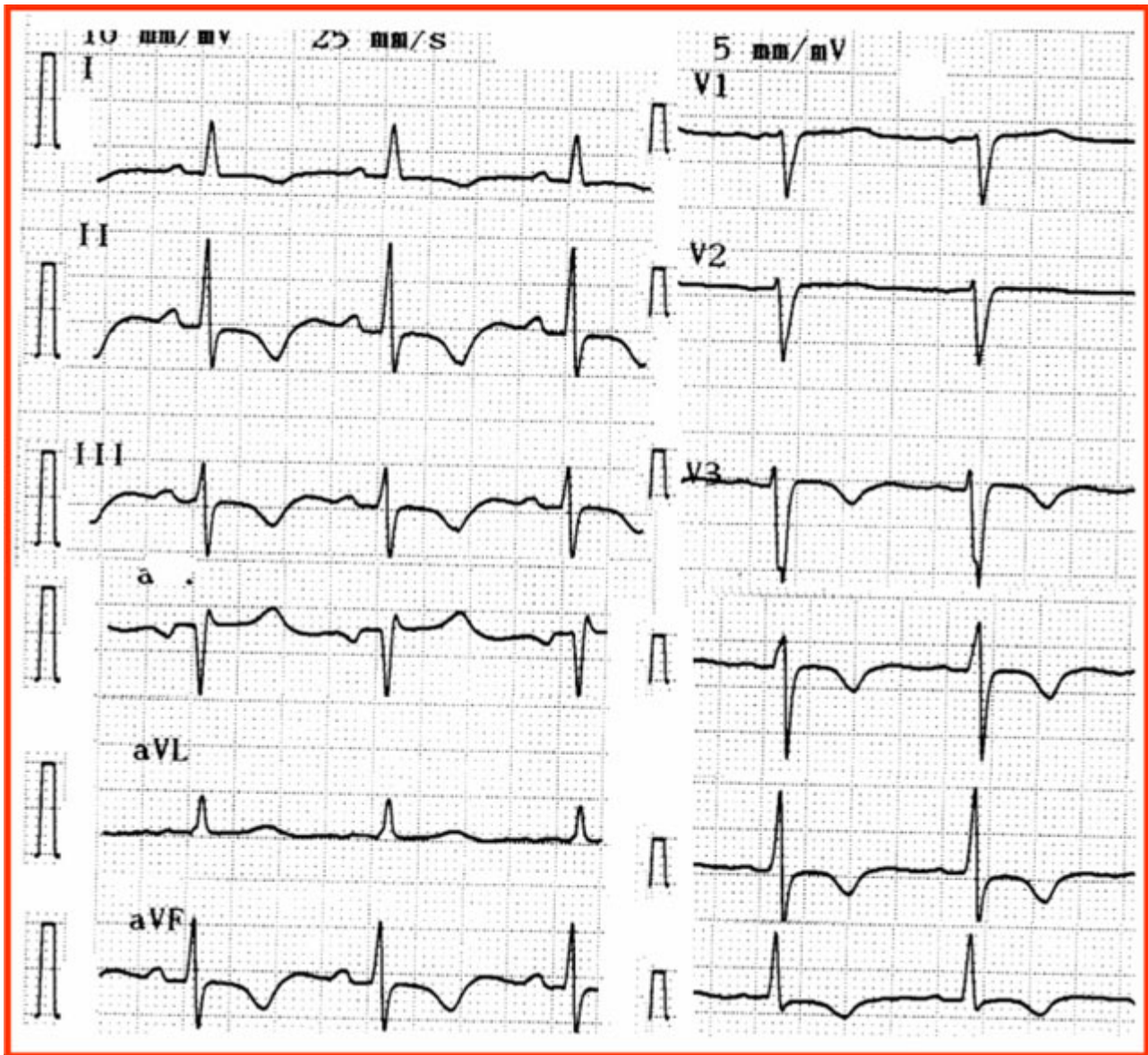
PART I. CASE PRESENTATION.

A 35-years old male is referred for electrophysiological consultation following resuscitation from out-hospital cardiac arrest.

He immigrated from Russia 5 years ago. He is a known carrier of the Human Immunodeficiency Virus (HIV). Three years ago he was treated for pulmonary tuberculosis with a good response. At that, an echocardiogram showed a dilated left ventricle with global hypokinesis and an estimated left ventricular ejection fraction of 40-45%. He had no symptoms of heart failure. A diagnosis of HIV-associated dilated cardiomyopathy was made and he was treated with carvedilol, zidovudine (a nucleoside reverse transcriptase inhibitor) and nelfinavir (a protease inhibitor). His compliance with therapy over the years has been suboptimal.

The patient was recently hospitalized elsewhere, following out-of-hospital cardiac arrest. The first documented arrhythmia during out-of-hospital resuscitation was ventricular fibrillation. Following defibrillation, a short-lasting asystole that responded to intravenous epinephrine was reported. No electrocardiographic recordings of the resuscitation are available. The patient eventually recovered fully, without signs of anoxic brain damage or heart failure. A repeated echocardiogram and cardiac catheterization showed normal coronary arteries and dilated cardiomyopathy. Amiodarone and an angiotensin converting inhibitor were added to his therapeutic regimen, which now consists of cardiac medications (carvedilol, captopril, aspirin, spiro lactone and amiodarone), medications for HIV infection (zidovudine and nelfinavir), and prophylactic antibiotics (trimethoprim-sulfamethoxazole and isoniazide-pyrazinamide). The patient, currently asymptomatic and in functional class I, is referred for electrophysiologic consultation regarding the need for implantable cardioverter defibrillator (ICD) implantation. His electrocardiogram is shown in Figure 1.

Figure 1. Electrocardiogram of a 35-year old patient with dilated cardiomyopathy and cardiac arrest. Values on amiodarone and carvedilol are: Heart rate 72/min, PR 172 msec, QRS 114 msec, QT 434 msec, QTc 458 msec.



WHAT NEXT?

- ❖ Electrophysiologic evaluation?
- ❖ Empiric amiodarone therapy or ICD implantation?
- ❖ If an ICD is implanted, which device should we select? A single chamber, a dual chamber or a biventricular ICD?

Please proceed to Part II and III only after you define what would be your approach to this patient.