

# Device telemonitoring may observe emotional status - psychological impact of arrhythmic episodes alert.

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Telemedicine and e-health constitute a modern and quickly developing approach to health care provision<sup>(1)</sup>. There is evidence for telemonitoring of cardiac implantable electronic devices (CIED) to improve the prognosis in patients with CIED, and remote multiparameter monitoring based on defibrillation devices has become a class II b recommendation in those subjects<sup>(2,3)</sup>. Telemedicine has also been shown to be helpful to manage psychological status in chronic diseases, and internet-mediated interventions are believed to be effective for depression and anxiety<sup>(1,4,5)</sup>. Mental disorders related to life with an implantable cardioverter-defibrillator (ICD) are a known and common problem<sup>(3)</sup>. We present the case of a tele-transmission report that led to revealing ICD-related stress disorder aggravation. A male patient aged 58 years with heart failure, dilated cardiomyopathy and a history of embolic ST elevation myocardial infarction, severe left ventricular systolic dysfunction and permanent atrial fibrillation (AF) underwent implantation of a single chamber St. Jude Medical ICD Fortify VR 1233-40 for primary sudden cardiac

death prevention in 2013. The next year he suffered multiple inadequate cardioverter-defibrillator shocks prompted by AF with a high ventricular rate, which was the reason to provide psychological care due to distress and depressive symptoms regarding recent arrhythmic events. Reprogramming of the device was done, with the active ventricular fibrillation (VF) zone only (230 bpm/20 intervals) and the ventricular tachycardia (VT) zone set to monitor mode (151 bpm/30 intervals). In November 2016, due to safety recommendations the patient was equipped with a transmitter and started being supervised by the St. Jude Medical Merlin.net system<sup>(6)</sup>. The patient has never before experienced malignant true ventricular arrhythmias to be treated by ICD.

As text message about a red alert indicating VT episodes occurred, and an immediate transmission analysis showed in total 9 episodes of AF with a rapid ventricular response – three were classified as VT with no therapy and 6 of them were correctly diagnosed as supraventricular tachycardia (SVT). A list of transmitted arrhythmic episodes is shown in Figure 1, the



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