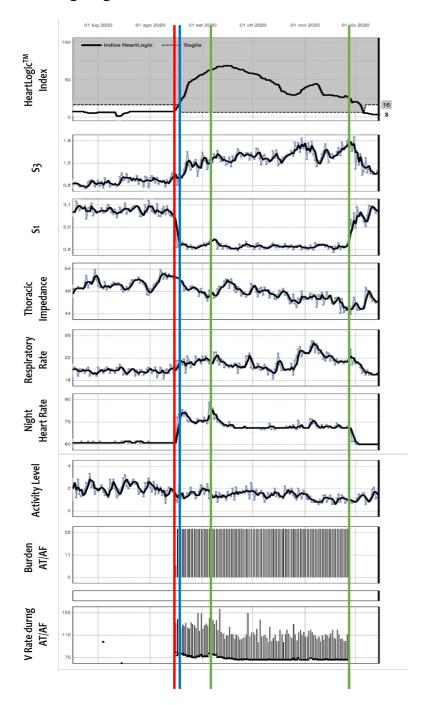


Case Of The Month #3 2021

A 73 years old man with history of coronary artery disease and depressed Left Ventricular Ejection Fraction (38%), in September 2019 was admitted in hospital for monomorphic sustained ventricular tachycardia. He underwent RF ablation of scar-related VT and dual chamber ICD implantation (RESONATE EL) with remote device monitoring and HeartLogic algorithm activation.



On 18th Aug 2020 (blue line) HeartLogic triggered an alert, but the patient's communicator was disconnected. When patient reactivated home monitoring, the alert was notified and the patient was contacted on 4th Sept 2020 (first green line). He referred exertional dyspnea, orthopnea and ankles edemas. At trend analysis, new onset of atrial fibrillation was reported on 16th Aug (red line).

The patient was suggested to attend an in-office visit but he refused due to the fear for Covid-19 infection. The physician decided to remotely modify the pharmacological therapy in order to reduce ventricular rate (Bisoprololo was increased from 1 to 5mg/d) amiodarone therapy was started (600mg/d, anticoagulant was started (Apixaban 5mg bid), to treat pulmonary congestion (furosemide dosage was increased to 40mg/d).

Immediately after these changes the patient reported improvements in HF symptoms and a slow decrease in HeartLogic index was observed in the following weeks.

On November 27th (second green line) the patient accepted to undergo in-hospital cardioversion that was able to restore sinus rhythm.

The HeartLogic index crossed the recovery threshold on 6th Dec 2020.





This case is very interesting for two different aspects:

- 1. It well describes the sudden worsening of heart failure after the onset of atrial fibrillation. Atrial fibrillation immediately impacted heart rate, determined an increase in respiratory rate and affected the systolic and diastolic function (S1 and S3 heart sounds). The thoracic impedance decreased, as a sign of the fluid overload condition also reported by the patient at phone contact.
- 2. The Covid pandemic discouraged patients to access the hospital. This case highlights the opportunity offered by HeartLogic to monitor and to stem the worsening of heart failure with remote actions and surveillance. In this case heart failure was driven by atrial fibrillation and only in-hospital cardioversion was able to completely solve the event, but the remote management of drug treatment was able to temporary relieve symptoms till the final solution.

Courtesy of Ospedale Del Mare (Naples - ITALY)

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