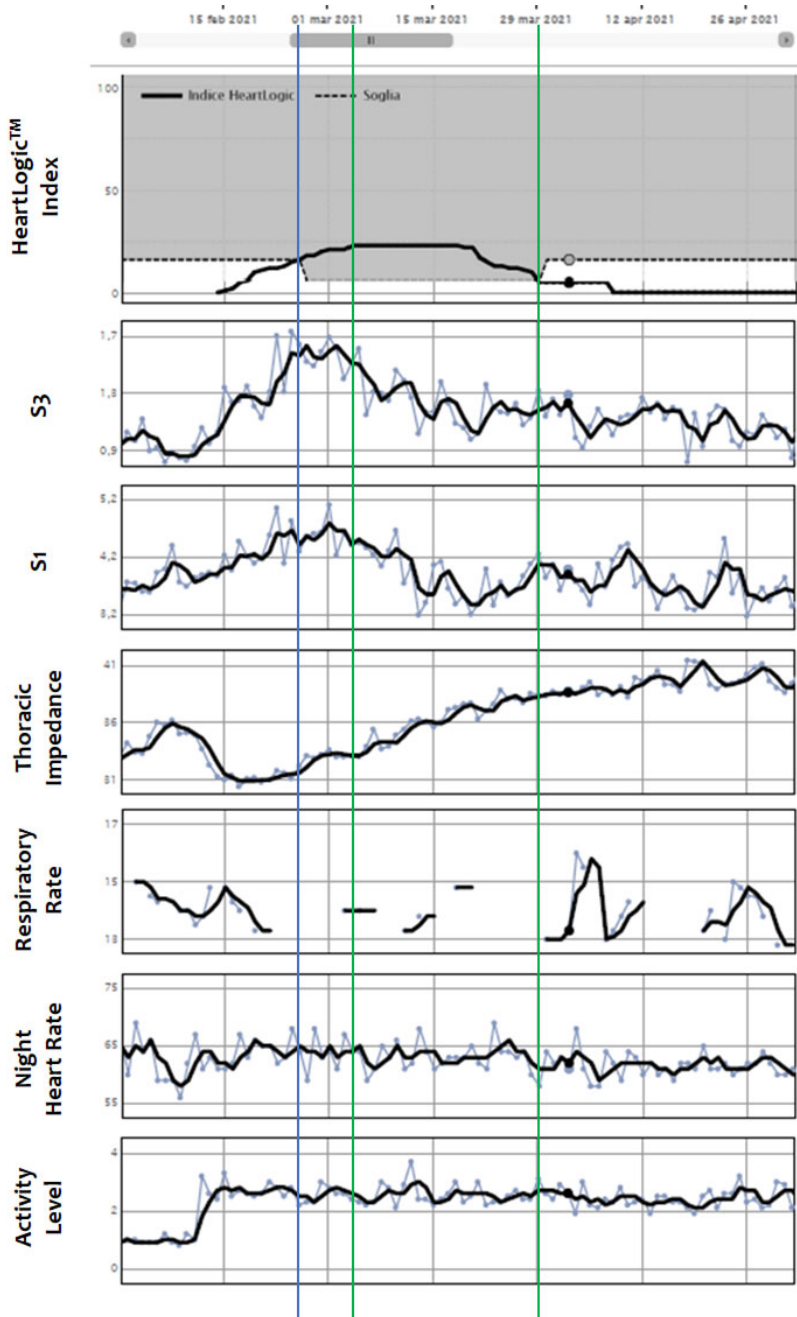


Case Of The Month #10 2021

A 56-year old man with family history of coronary artery disease, NYHA Class II, hypertension and mixed dyslipidemia, underwent in October 2020 a PCI for anterior STEMI.



In December the patient was hospitalized for heart failure: Sodium Nitroprusside (NTP Na) and diuretic intravenous therapies were administered, and the patient reported a weight loss of 5 Kg. The clinical evaluation showed reduced ejection fraction (30%) and high NTproBNP value (4018 pg/ml).

After hemodynamic stabilization, the patient underwent the Resonate single-chamber ICD implantation on January, 7th, 2021. The Latitude remote monitoring system and HeartLogic algorithm were activated.

The patient was fine, but some weeks later, at the end of February (blue line), the HeartLogic index crossed the programmed threshold: the alert was mainly driven by an increase in third heart sound and decrease in thoracic impedance.

Few days after the alert (first green line), the patient was contacted by phone and he reported dyspnea on exertion without weight gain, edema or other signs of heart failure.

After HeartLogic analysis and remote evaluation, the physician decided to increase the diuretic therapy (Furosemide) from 25 mg/day to 50 mg/day and up-titrate the Entresto therapy to 49/51 mg twice-daily, as no hypotension events were observed.

Immediately after the drug therapy adjustment the HeartLogic index started to decrease and on March 29th the alert state was solved (second green line) and patient reported to be fine.

The analysis of trends showed a marked increase in third heart sound and a transient decrease in thoracic impedance in the weeks before the alert notification.

These trends were in agreement with the dyspnea on exertion reported by the patient during alert state.

After the drug therapy increase the third heart sound showed an immediate decrease that continued for some weeks, reaching a stable value just after the alert resolution.

Immediately after implantation, the thoracic impedance was increasing, because of the pocket drying. At the time of heart failure worsening, it showed a marked decrease, probable sign of fluid retention. Then, after drug adjustment, it started to increase again.

This case highlights the ability of HeartLogic in detecting worsening of heart failure status even in the presence of very little signs and symptoms. This helps physicians in implementing early clinical actions and avoiding further heart failure progression. Moreover, the use of multiple variables for the assessment of the heart failure risk status makes the algorithm extremely more sensitive than systems based on impedance alone in the months following the implantation.

Lastly, it is important to notice that the event was completely managed remotely. This is a very important aspect for the efficient organization of the follow-up clinic and for limiting the hospital access in the COVID-19 era.

“Courtesy of “S. Giovanni Battista” Hopital (Foligno – ITALY)”

CAUTION: The law restricts these devices to sale by or on the order of a physician. Indications, contraindications, warnings and instructions for use can be found in the product labelling supplied with each device. Information for use only in countries with applicable health authority registrations. This material not intended for use in France. 2019 Copyright © Boston Scientific Corporation or its affiliates. All rights reserved.