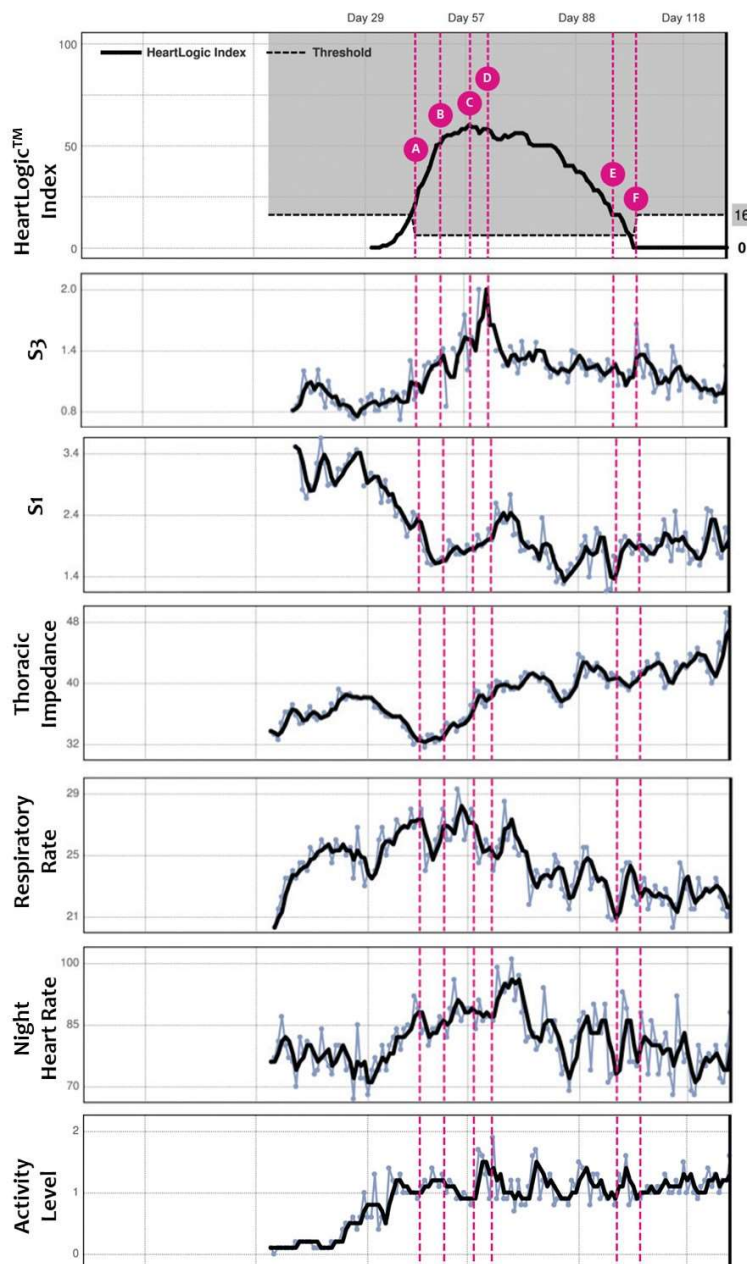


## Case Of The Month #5 2021

A 68 years old woman with dilated cardiomyopathy, severe mitral regurgitation and LBB presented in ER with symptoms of fatigue, dyspnea on exertion and shortness of breath. She underwent left and right heart catheterization due to severe Heart Failure.

The patient was admitted to the hospital for 25 days and a Vigilant CRT-D device was implanted.



During hospital stay the patient continued to have fluid overload secondary to acute/chronic Heart failure and she underwent a intravenous treatment with diuretic (Furosemide 5mg/hr) and pulmonary vasodilator (Milrinone 23 .1375 mcg/min).

The medication therapy at discharge included beta-blocker, aldosterone antagonist/diuretic and blood pressure drugs.

Two weeks after discharge a in-office follow-up, with heart failure and device check, was performed and the physician suggested to take the diuretic therapy as needed.

One week later an HeartLogic alert was notified (Point A). During in-person assessment a weight increase (1 Kg), shortness of breath and edema were observed and a single administration of diuretic therapy (Demadex 10 mg) has been prescribed (Point B).

In the following weeks the HeartLogic index continued to increase, up to the value of 58, and patient still reported weight increase, shortness of breath and edema. Physician tried to manage the heart failure worsening with gradually increase of diuretic use from taking three days a week (Point C) to final daily administration (Point D).

The HeartLogic index started a slowly value decrease and HF symptoms as well.

Two months after HeartLogic alert the patient was fine, no dyspnea or edema, and the HeartLogic index reached the zero value (Point F).

The analysis of trends showed that the HeartLogic alert was driven mainly by heart sounds, respiratory rate and night heart rate. Thoracic impedance had an increasing trend, that is inconsistent with shortness of breath and weight gain caused by fluid overload. This behavior may be ascribed to the pocket drying after implanting procedure. A continuous remote monitoring of physiological parameters could help to better tailoring the HF therapy for each patient, even if in this case only a daily diuretic administration was able to improve heart failure status.

This case highlights that a multiparametric approach is the best solution to detect a worsening heart failure, while a single parameter evaluation (thoracic impedance in this case) could provides a wrong information about the HF status, due to the impact of different confounders.

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