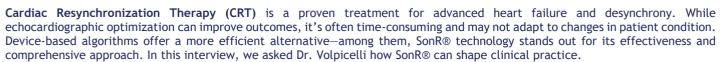# The value of SonR® in clinical Practice

– Interview with Dr. Mario Volpicelli –

MD Electrophysiologist at ASL Napoli 3 Sud Ospedale Santa Maria della Pietà Nola, Italy

Cardiac Resynchronization Therapy (CRT) is a proven treatment for advanced heart failure and desynchrony. While echocardiographic optimization can improve outcomes, it's often time-consuming and may not adapt to changes in patient condition. Device-based algorithms offer a more efficient alternative—among them, SonR® technology stands out for its effectiveness and comprehensive approach. In this interview, we asked Dr. Volpicelli how SonR® can shape clinical practice.

Question: *Do you routinely use optimization algorithms in your clinical practice, or is this a solution reserved for specific patients only (for example, patients who do not show an immediate response)?*

Answer: I consistently use the SonR® algorithm for all my patients because it is reliable and has shown excellent results. When using other companies' devices, I typically only use optimization algorithms when the patient does not respond, and typically, I perform an echocardiographic optimization first.

Question: *As one of the first users of SonR® technology, what were the main advantages you observed in using this algorithm compared to traditional CRT optimization methods?*

Answer: SonR® is a distinct method compared to others, as it relies on an algorithm based on the heart's contractility. It is the only algorithm that uses the mechanical contraction of the heart as an indicator of response. This unique approach is advantageous because it does not focus on the electrical parameters that other algorithms consider. Electromechanical coupling is crucial and provides accurate response indicators rather than "cosmetic" electrical improvements, typical of other methods.

Question: *How has automatic optimization simplified your workflow and improved efficiency in patient management?*

Answer: In our experience, SonR® reduces echo needs and shortens follow-ups, significantly improving efficiency in our high-volume practice. Sometimes, we also use the signal as an empirical indicator of the response, as we notice that there is often alignment between an increase in the signal and an improvement in the patient's clinical response.

Question: *Have you noticed significant differences in the responder rate to CRT therapy compared to previous methods?*

Answer: We have observed notable differences in ischemic patients, who tend to be more heterogeneous. We find that optimizing the atrioventricular (AV) and interventricular (VV) intervals improves synchrony and enhances the synchrony of the atrioventricular intervals. This is particularly important for individuals with not only ventricular failure but also diastolic failure. In such cases, it is crucial to manage the filling effectively, and the algorithm is designed to assist these patients, even those with valvular issues related to cardiomyopathy or heart failure.

Question: *Which features of the algorithm do you find most innovative or useful in daily clinical practice?*

Answer: Mechanical optimization is innovative and fundamentally superior to electrical methods, providing more consistent results with those found with echo. In simple terms, we trust this technology more because it yields results similar to those that experienced physicians would select by using standard methods, such as echocardiograms.

Question: *Did you find differences in results between patients with different clinical characteristics (age, severity of the condition, etc.)?*

Answer: While LBBB patients respond well to CRT universally, the algorithm shows value in cases with RBBB and wide QRS of various etiologies where resynchronization alone is insufficient. In these cases, the algorithm performs better than currently available options, as it can successfully optimize even the most challenging situations. From this perspective, it serves as valuable support in increasing the number of patients who respond positively.

Question: *Are there cases in which the algorithm did not work as expected, or patients for whom you advise against its use?*

Answer: In my experience, we have not encountered significant issues; individual results may vary, but there are situations where it is less useful. For instance, it is less useful in AF patients requiring pacing (as it requires manual initiation). Otherwise, I recommend it for all, including PM-dependent patients.

Question: *Since SonR® technology requires a specific lead, have you encountered any challenges with implantation, usability, or long-term reliability?*

Answer: With appropriate training, we have not encountered significant issues. Once we understood how to implant it, we encountered no issues with positioning, dislodgements, or the general procedure. I believe that both experienced CRT specialists and new implanters can easily achieve success with proper training.

Question: *What suggestions or improvements would you propose to make this technology even more effective or user-friendly?*

Answer: I would try to validate the algorithm also for physiological stimulation because nothing similar is currently available, and it would be primarily useful.