

# Atrial arrhythmia ablation with non-contact anatomical mapping

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Technological evolution in the treatment of diseases is growing exponentially. With regard to cardiological diseases and, especially in the context of arrhythmias, these paradigm shifts are even more visible. New tools for locating arrhythmogenic foci, emphasizing more precise electroanatomical mapping, have made the ablation procedure safer and more effective. Among recent technologies, we must highlight contactless mapping sold by Biotronik - AcQMap. This system, unique for contactless electroanatomical images on the market, enables quick and accurate anatomical reconstruction and precise electrical mapping through a single beat. The SentiCath catheter has 48 ultrasound transducers and 48 high-fidelity electrodes, together with the AcQMap system, to reconstruct the anatomy and electrical activation without contact and in just one beat. We present a case of a patient, 42 years old, with isolated atrial extrasystoles, frequent monomorphic on 24-hour Holter monitoring (27%), refractory to the proposed clinical treatment, symptomatic, with a direct impact on quality of life. We opted for radiofrequency ablation treatment through contactless mapping. At the beginning of the procedure, the patient was in atrial bigaminism and by positioning the duodecapolar catheter in the coronary sinus, it was possible to demonstrate the origin of the arrhythmogenic focus in the left atrium. After transseptal puncture and positioning of the SentiCath catheter, we performed non-contact electroanatomical mapping with documentation of the arrhythmogenic focus in the roof of the LA closest to the left pulmonary veins. After heating the focus and a rapid manifestation of the arrhythmia, it was controlled with a few seconds of radiofrequency application. We performed provocative tests concomitantly with the use of drugs but without inducing new extrasystoles and ended the procedure after 20 minutes of arrhythmia remission.