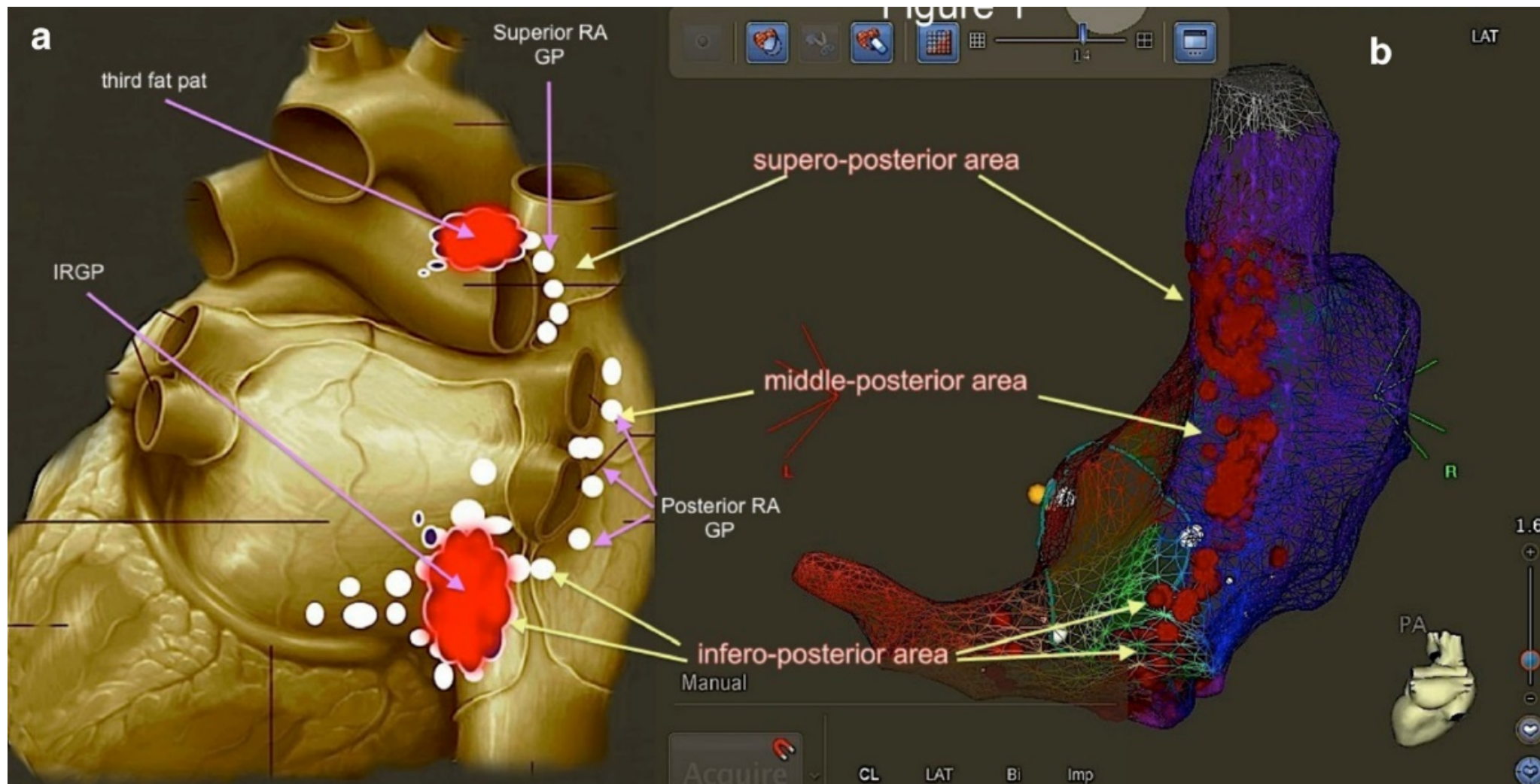


Cardioneuroablation guidata da nuovi tools integrati nel sistema di mappaggio 3 D

Ermenegildo de Ruvo
Policlinico Casilino
Roma



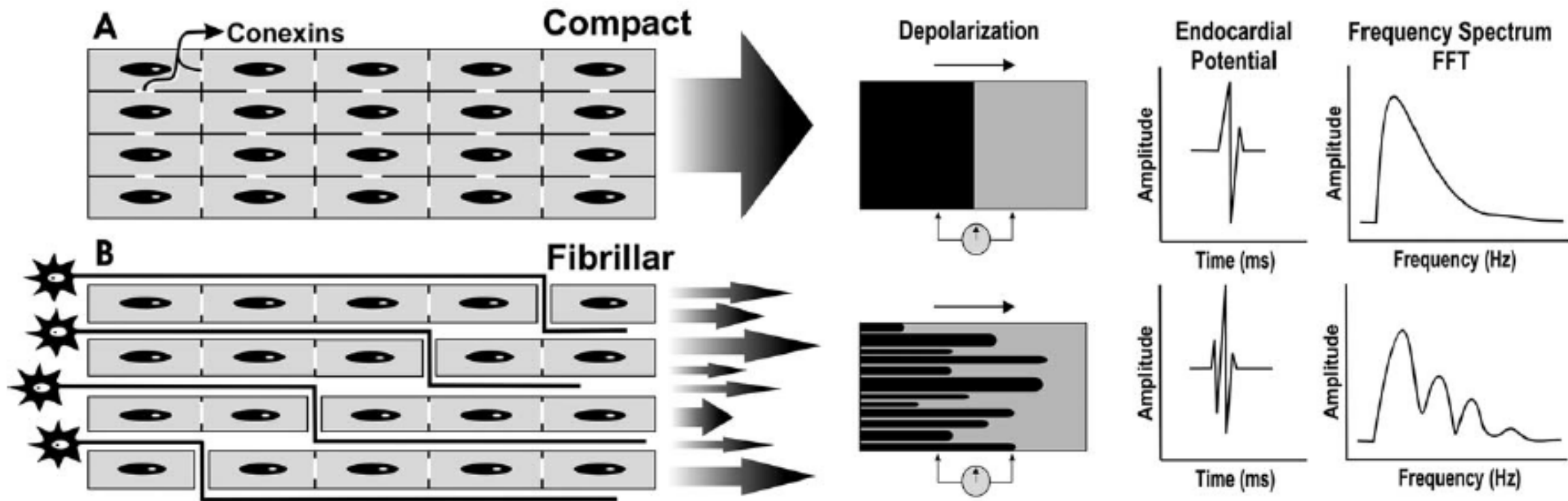
Intraprocedural methods to identify ablation targets

- Intraprocedural methods to identify ablation targets are high-frequency stimulation, which requires special equipment and is rather considered to be neither sensitive nor specific enough to localize GPs,
- an anatomically guided approach based on empirical ablation at the presumed anatomic location of GPs,
- an electrogram-based approach, or a combination of these approaches

GPs

Areas of adjacent GPs and their distal endocardial inputs to the atrial walls are characterized by fragmented intracardiac signals in the otherwise healthy myocardium.

These locations of fragmented signals were first called AF NESTS

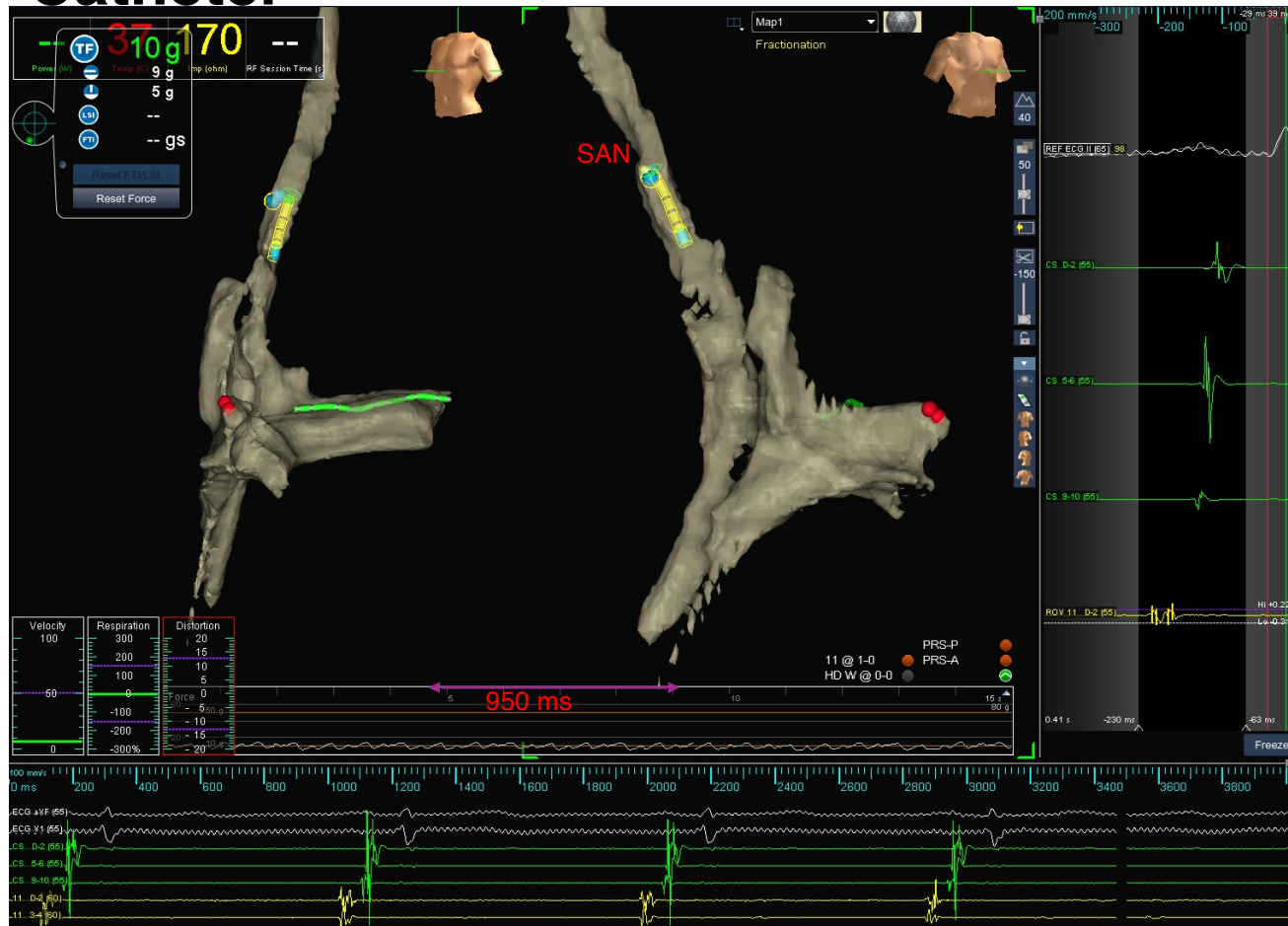


HAFE

- Fractionated electrograms with ≥ 4 deflections and high amplitude (≥ 0.7 mV) are highly associated with a vagal response during ablation, indicating GP sites

Simplified approach to Right side CNA

Right Atrium reconstruction with Ablator Catheter

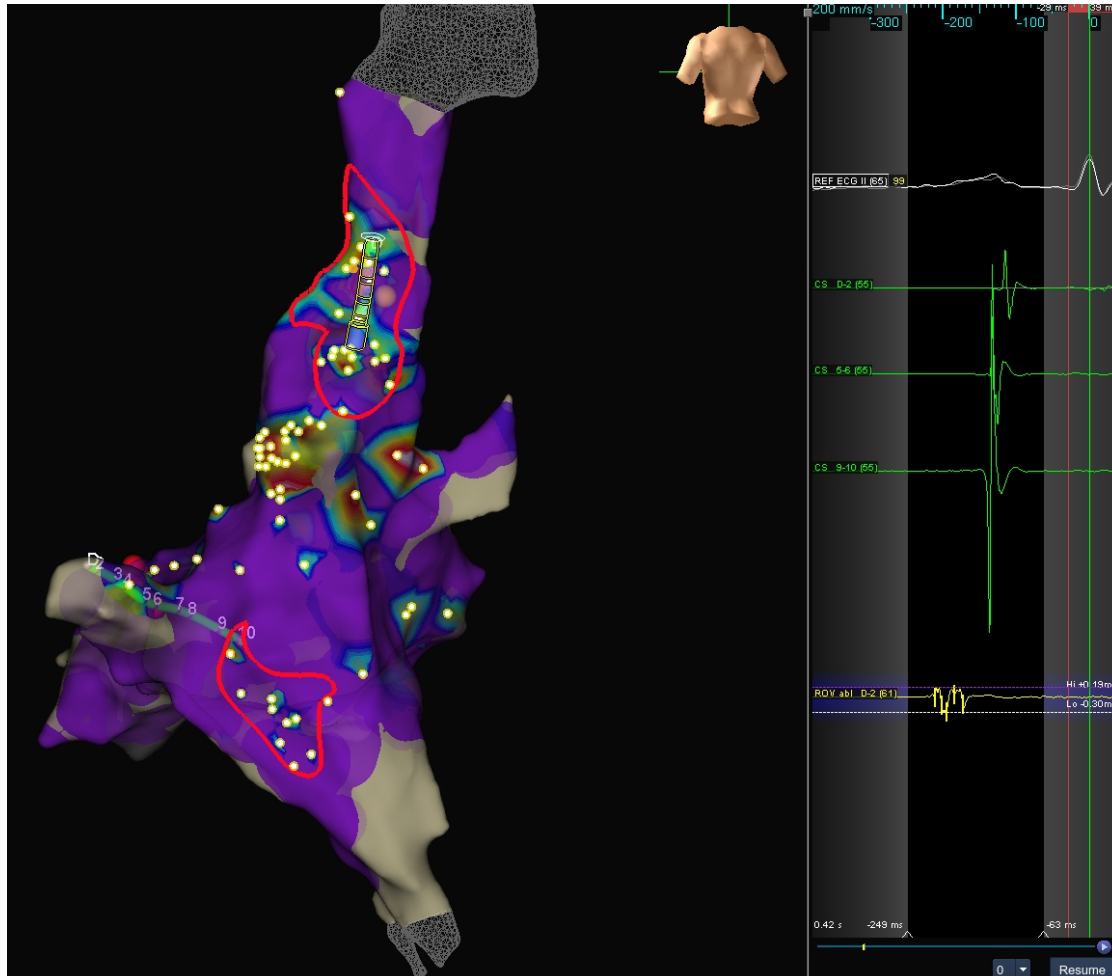


3 D electroanatomical reconstruction

With contact sensor ablator (in this case) TACTICATH SE (F curve)

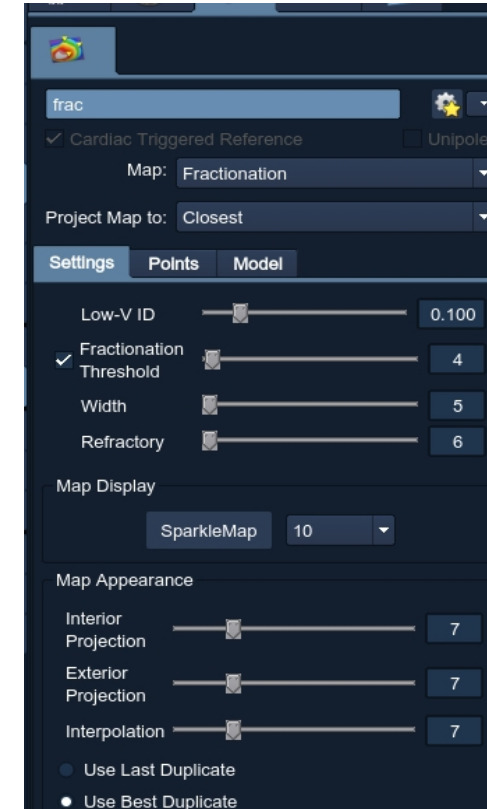
- ICV (Inferior Cava Vein)
- CS (coronary Sinus)
- HIS
- SAN (sino atrial node)
- Tricuspid Valve (TV)

Parameters Setting - Ensite



Fractionation Threshold > 4
Voltage > 0.5

FRACTIONATION/HAFE Map Setting



POINTS Used 907 / Collected 1611

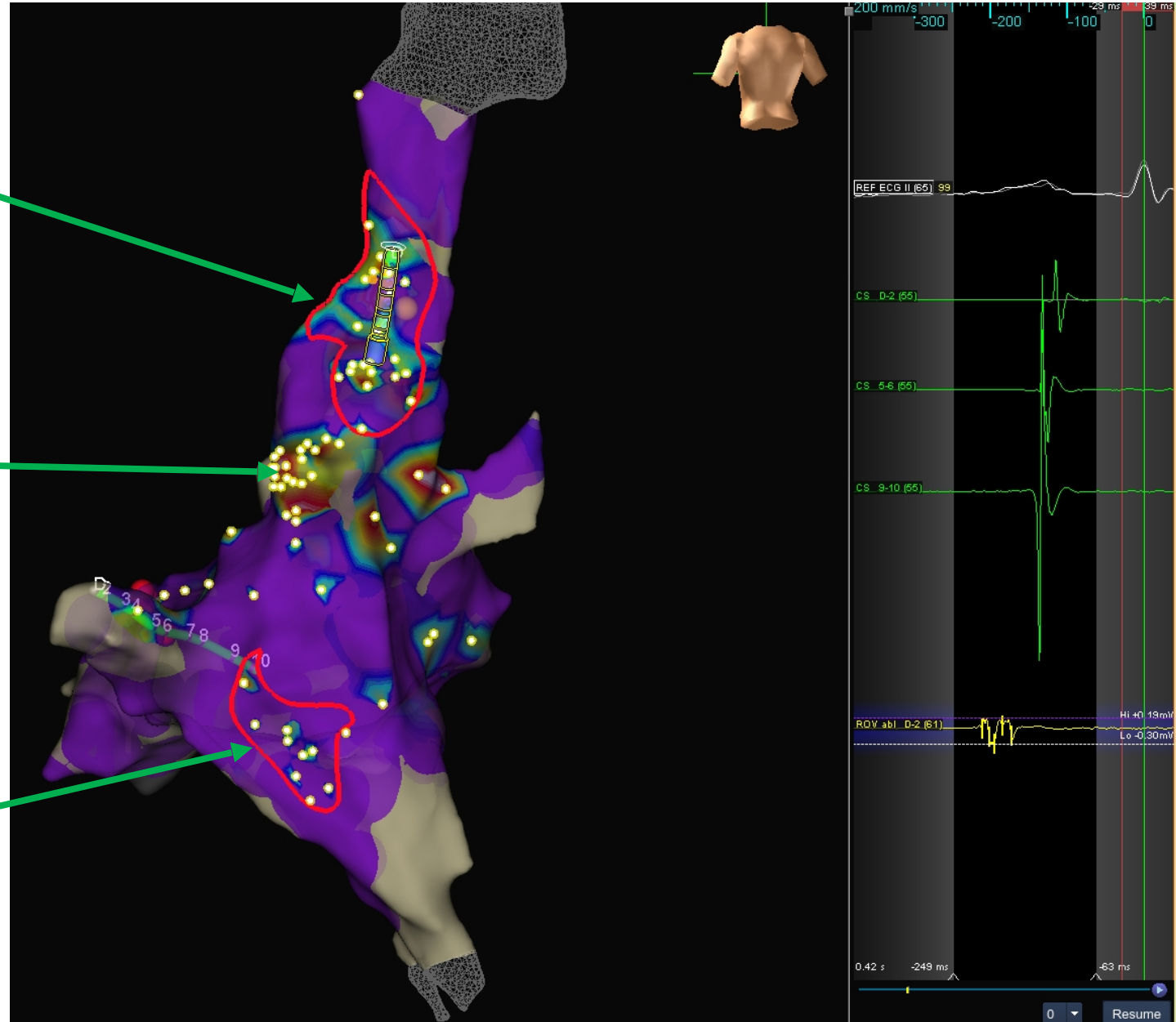
Parameters Setting - Ensite

ARGP or RSGP area

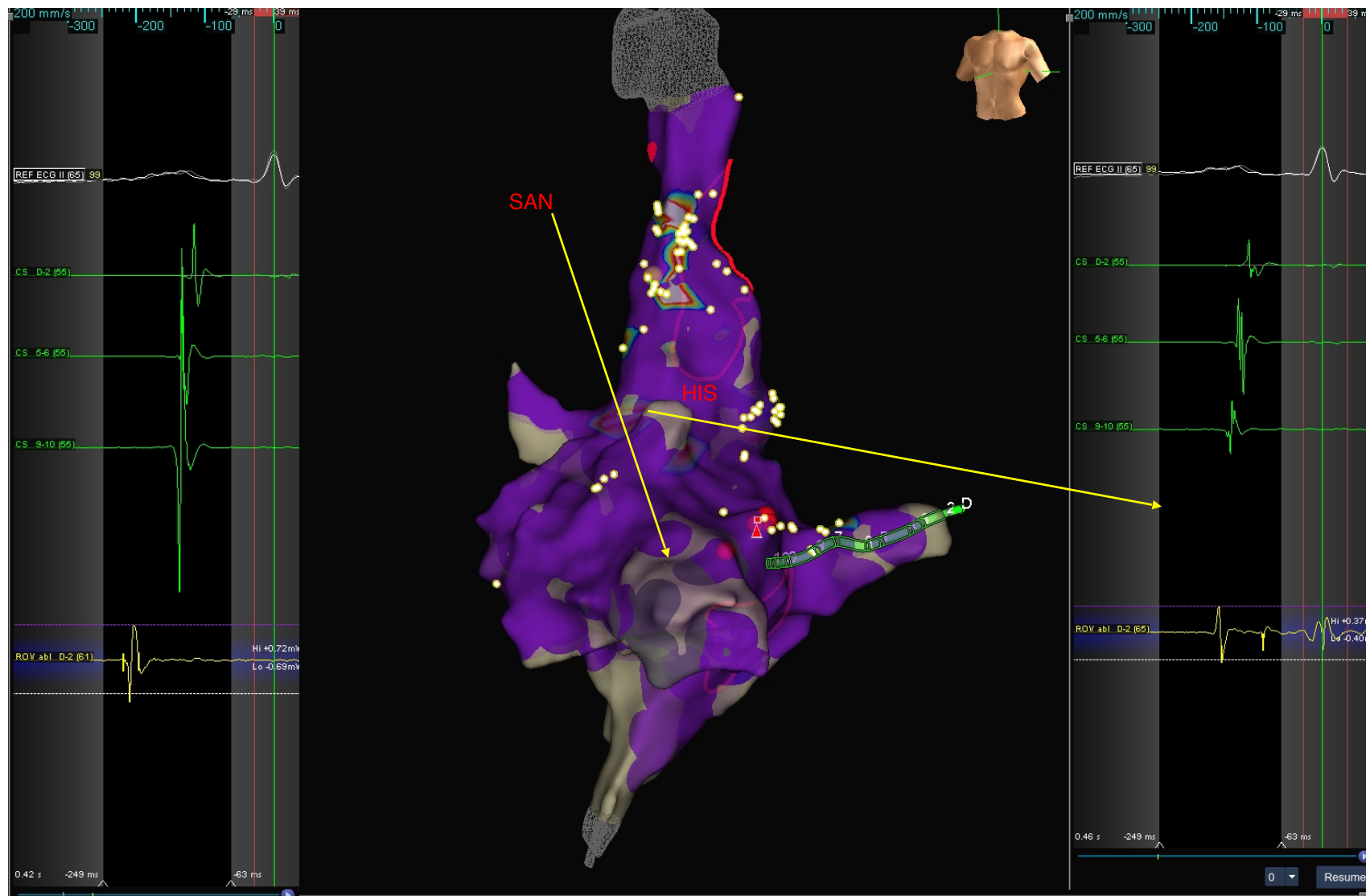
Fossa OVALIS

High fragmentation, apparently
no right ganglia

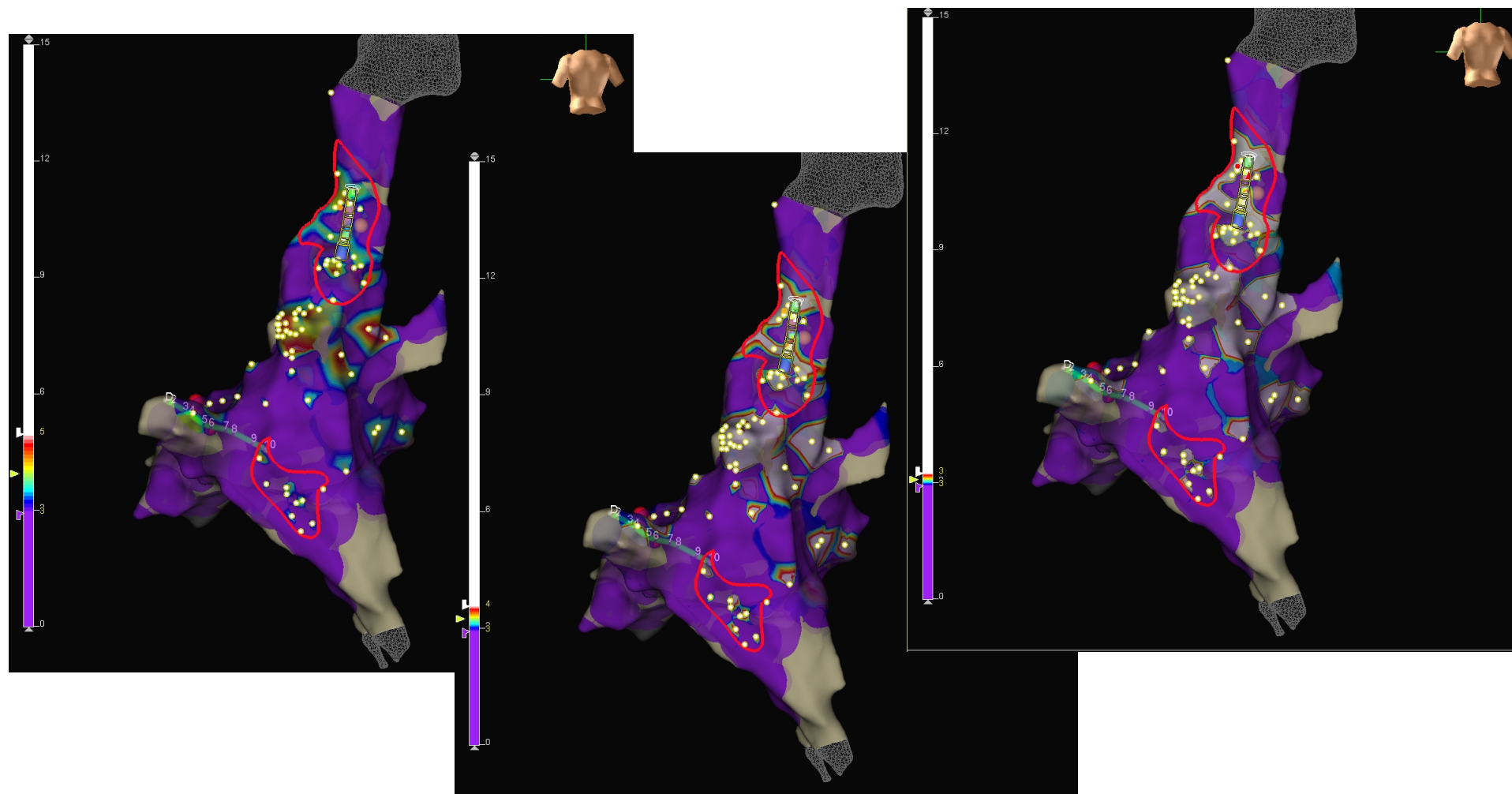
IRGP or PMRGP area



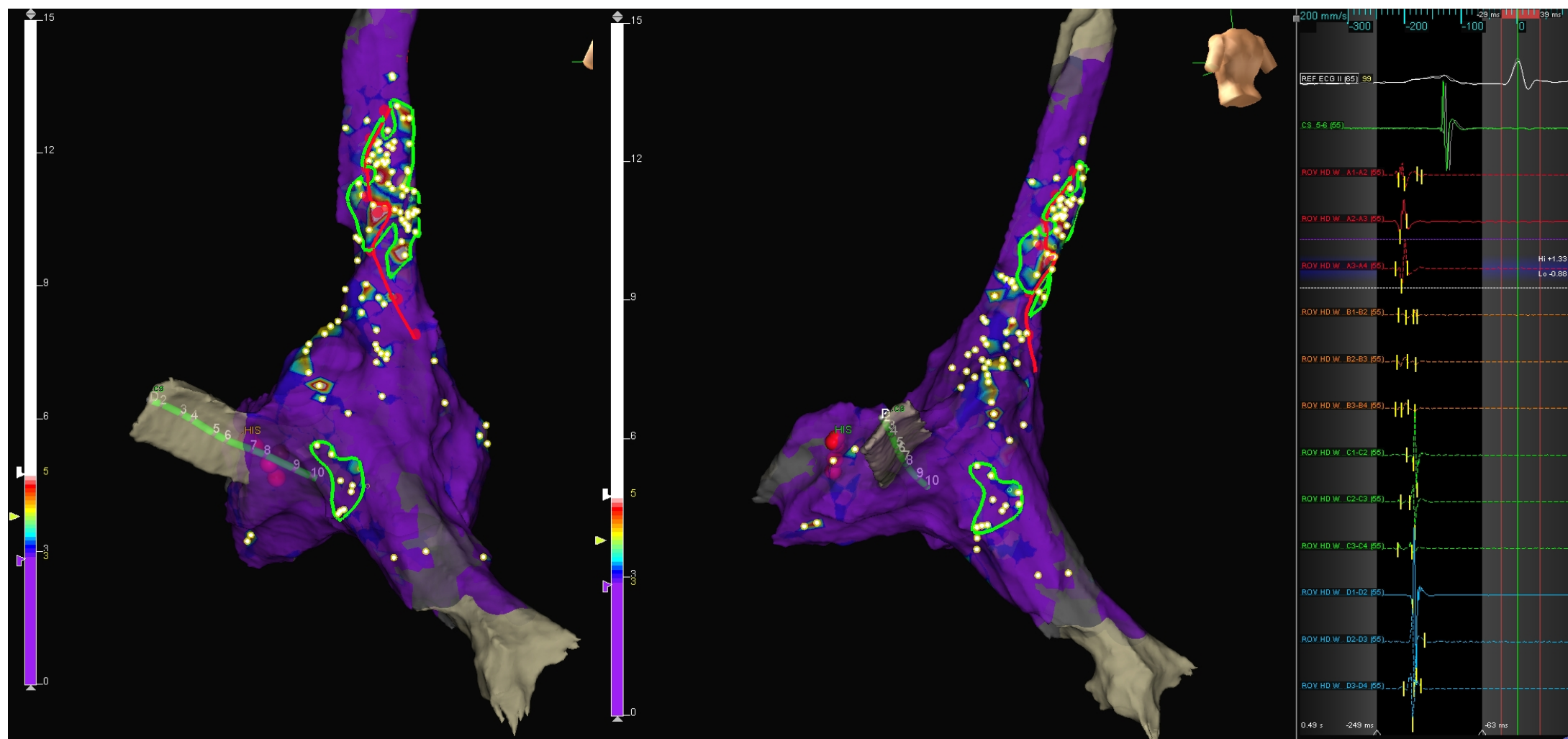
STEP 2 Warning Area



Different interval settings for CNA area



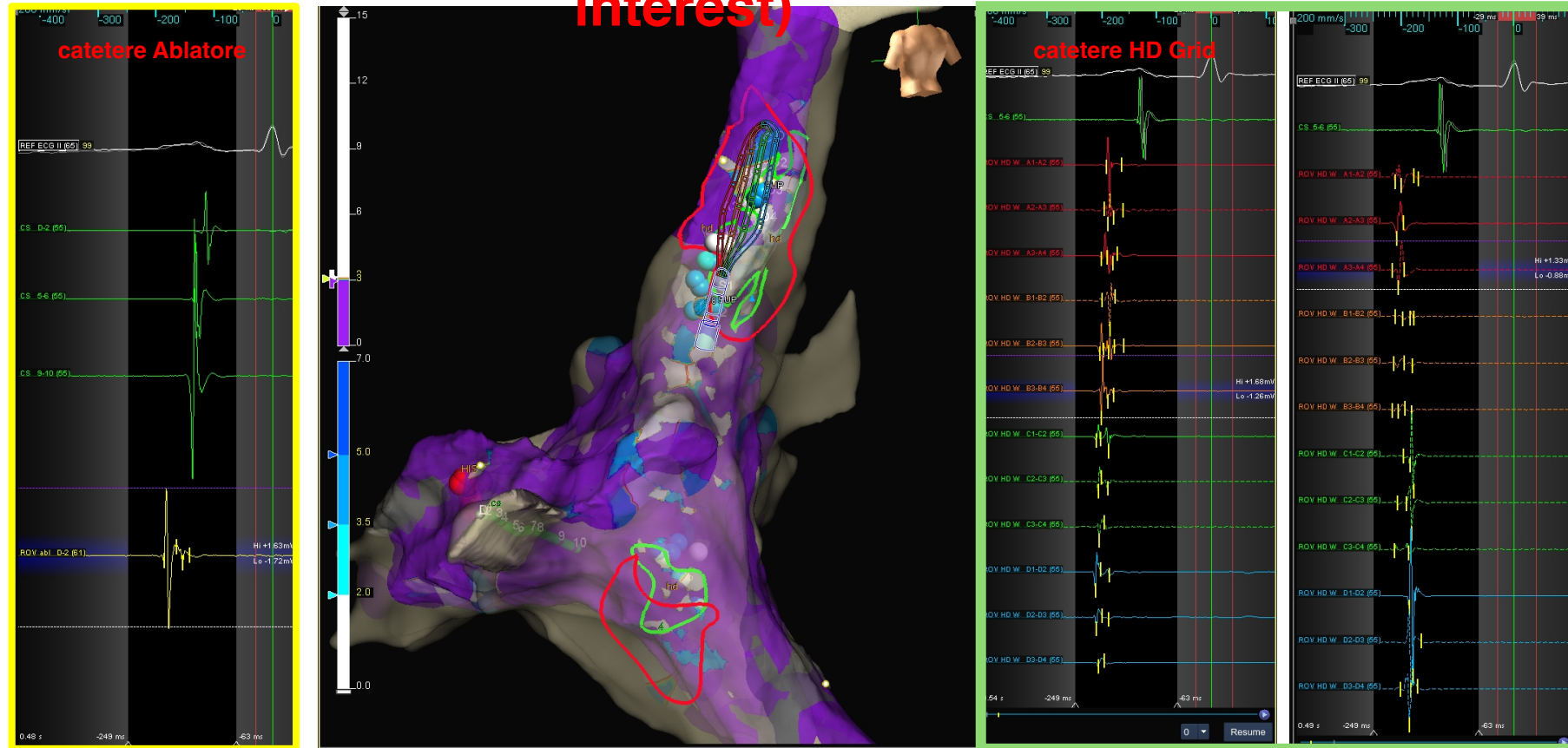
3 D RA Map with Advisor HD Grid



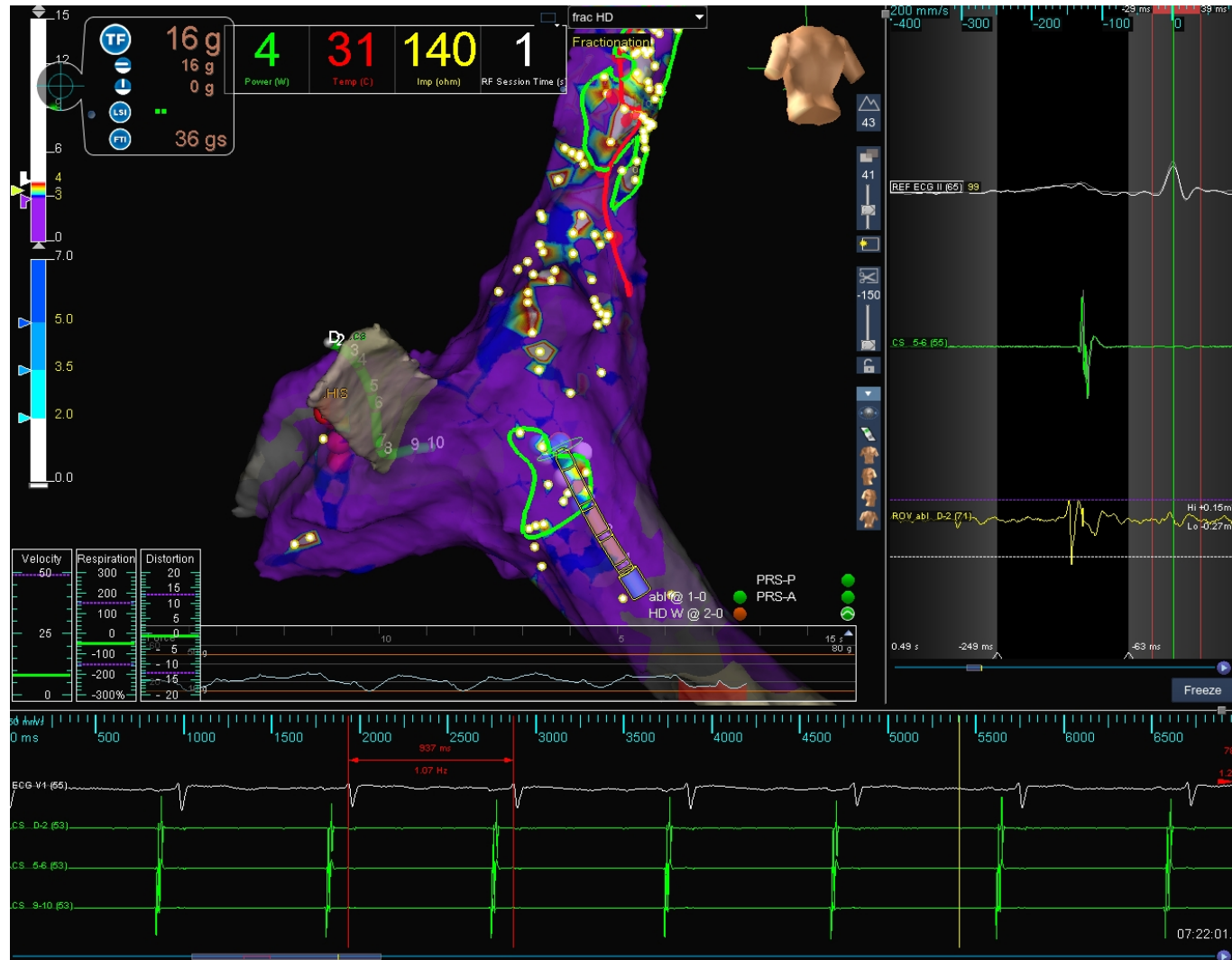
POINTS Used 2515 / Collected 6720

**Shorter time bigger
accuracy**

Comparison Between EGM in ROI (region of interest)



STEP 3 ABLATION RF with TACTICATH SE



SETTINGS

43 °C

First IRGP

Looking for shortening of AH interval – observed in almost 50% of cases and depending on initial length and resting cycle

Impedance drop >8
Or EGM < 0.3, optimal 0.1

Before Ablation CL=937 ms

RF Ablation with TACTICATH SE



Frenic nerve Mapping with high amplitude stimulation

After ablation CL=720 ms

Blunted response to atropine,
increases less than 10% cycle
length

Omnipolar Technology

Phrenic Nerve

Anatomical Approach

This comparative study of EAGC and HAFE-guided CNA for refractory VVS revealed comparable long-term efficacy and safety between the two approaches.

HAFE-guided CNA offered procedural advantages (reduced operative duration and radiation exposure) while maintaining comparable outcomes