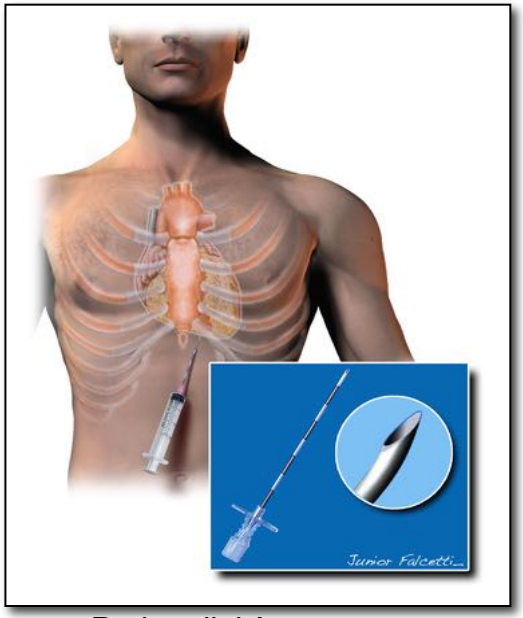
14th Venice Arrhythmias

October 16th to 18th, 2015

SOLAECE CORNER: TOP ADVANCES IN THE MANAGEMENT OF RHYTHM DISORDER

Ventricular Tachycardia Ablation In Chagas Heart Disease

Sun, October 18th: 8:30 – 10:30 AM – Borges Room



Pericardial Access

Heart Institute (InCor) University of Sao Paulo Medical School

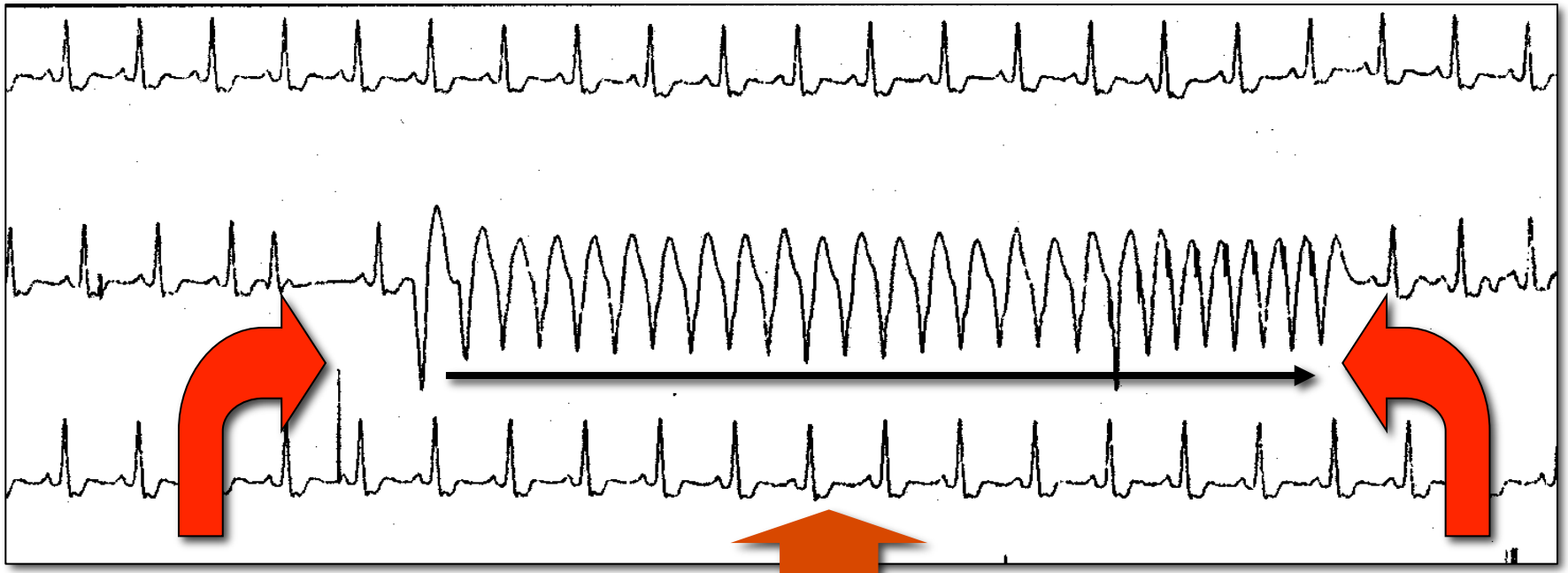
Mauricio Scanavacca, M.D., PhD.

October 16 - 18
14th EDITION 2015

MY CONFLICTS OF INTEREST ARE

- Electrophysiologist Interventionist
- Support for Clinical Studies
  - J&J. St. Jude Medical, Bohering, Bayer, Pfzier
- Support for Fellow training
  - J&J, St. Jude Medical, Medtronic
- Honoraria for lectures and consulting
  - J&J, St. Jude Medical, Medtronic, Bayer and Daichii Sankyo

Management of Sustained VT in Chagas Disease



To prevent the event

Amiodarone

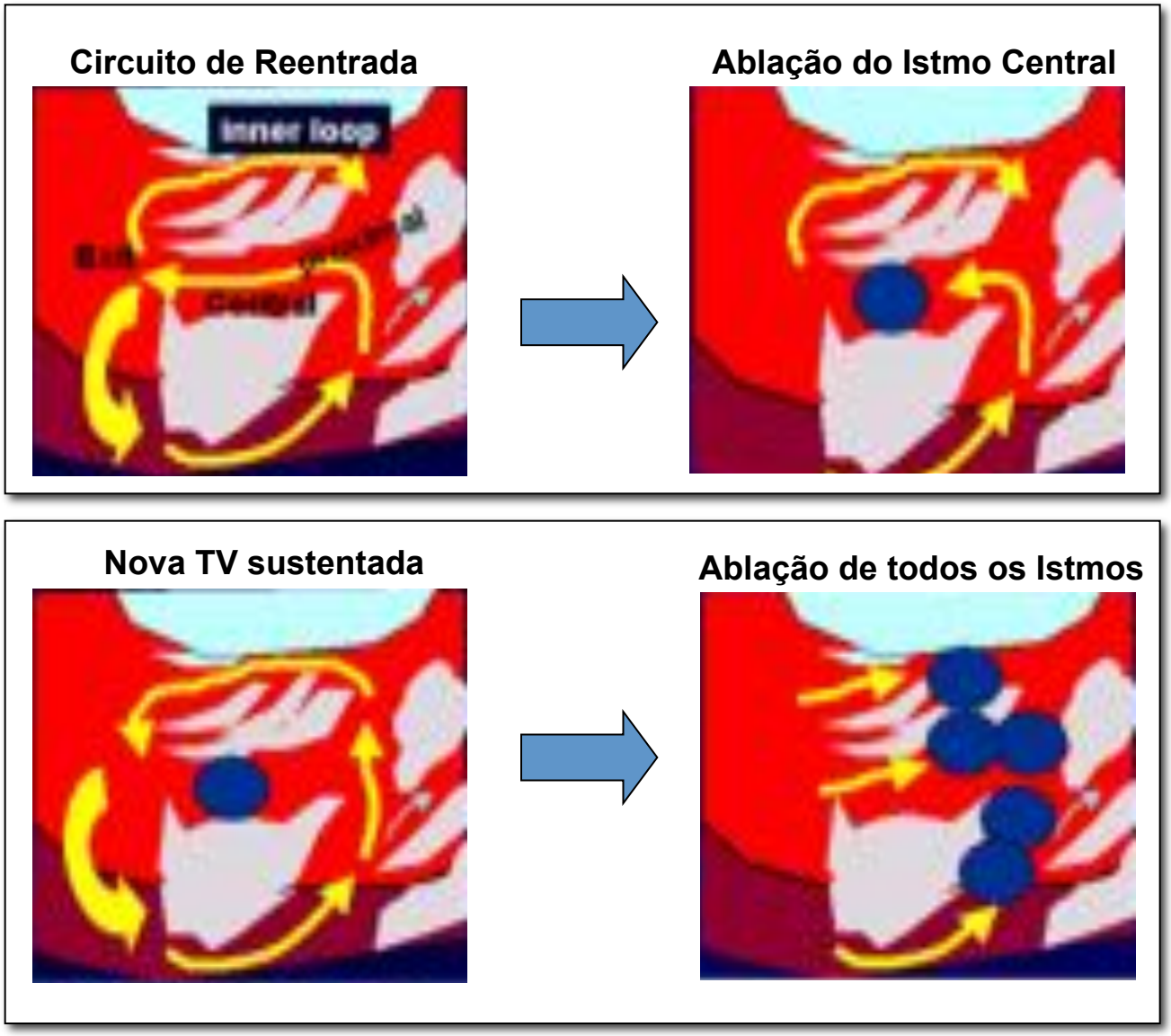
To change The substrate

Ablation

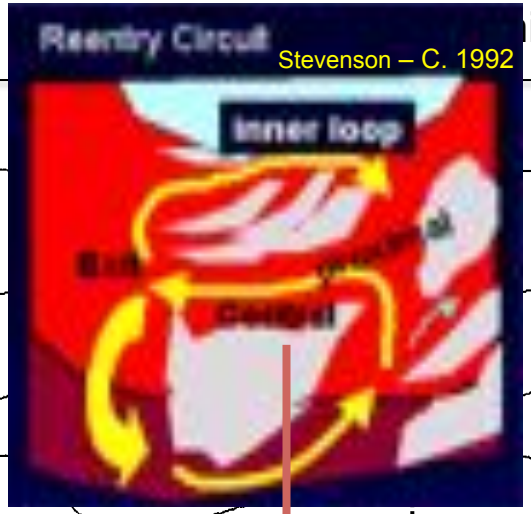
To interrupt

I C D

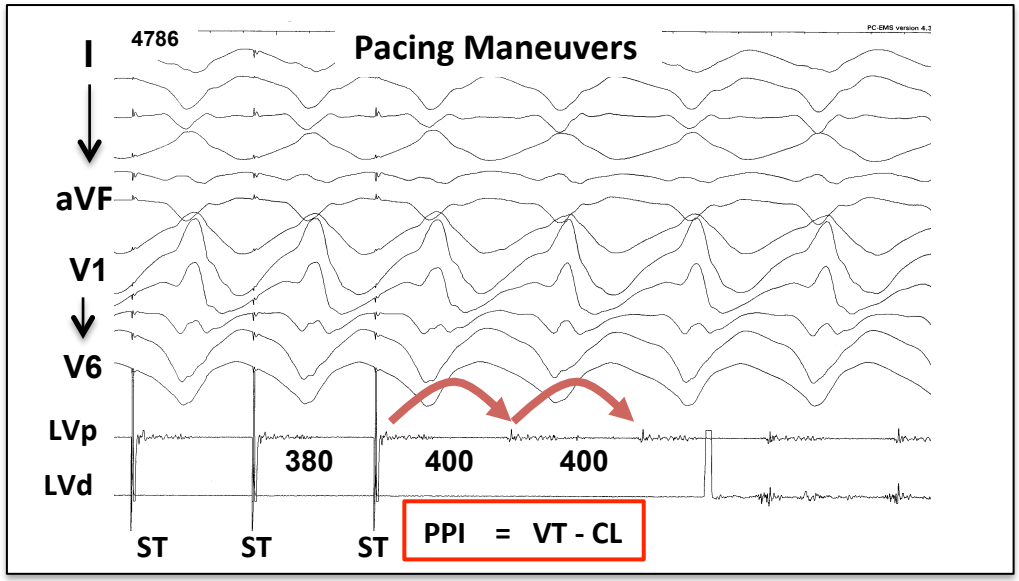
Estratégias Eletrofisiológicas para Ablação da TV sustentada

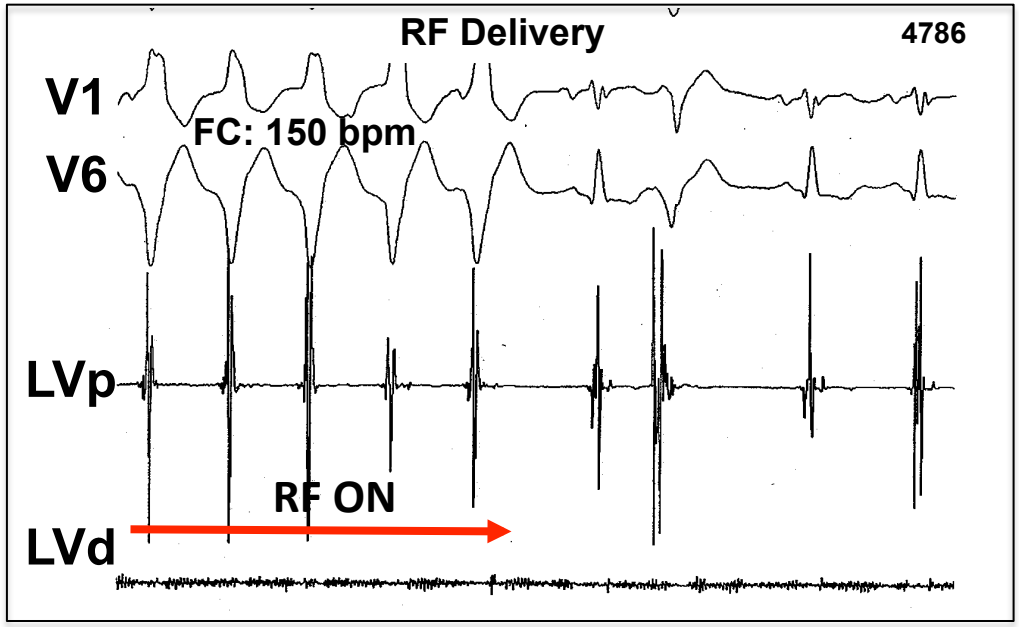


Stevenson et al . HRS 2002

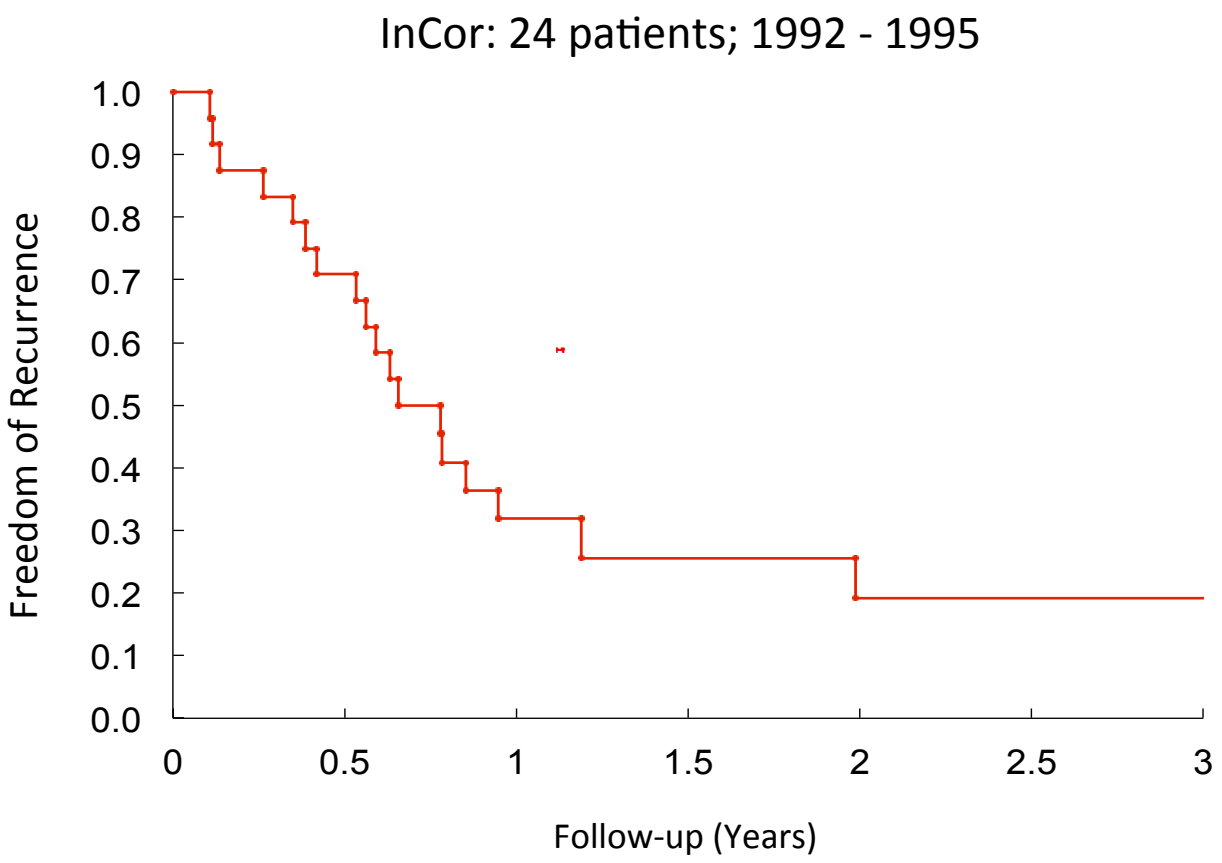


Electrograms Analysis

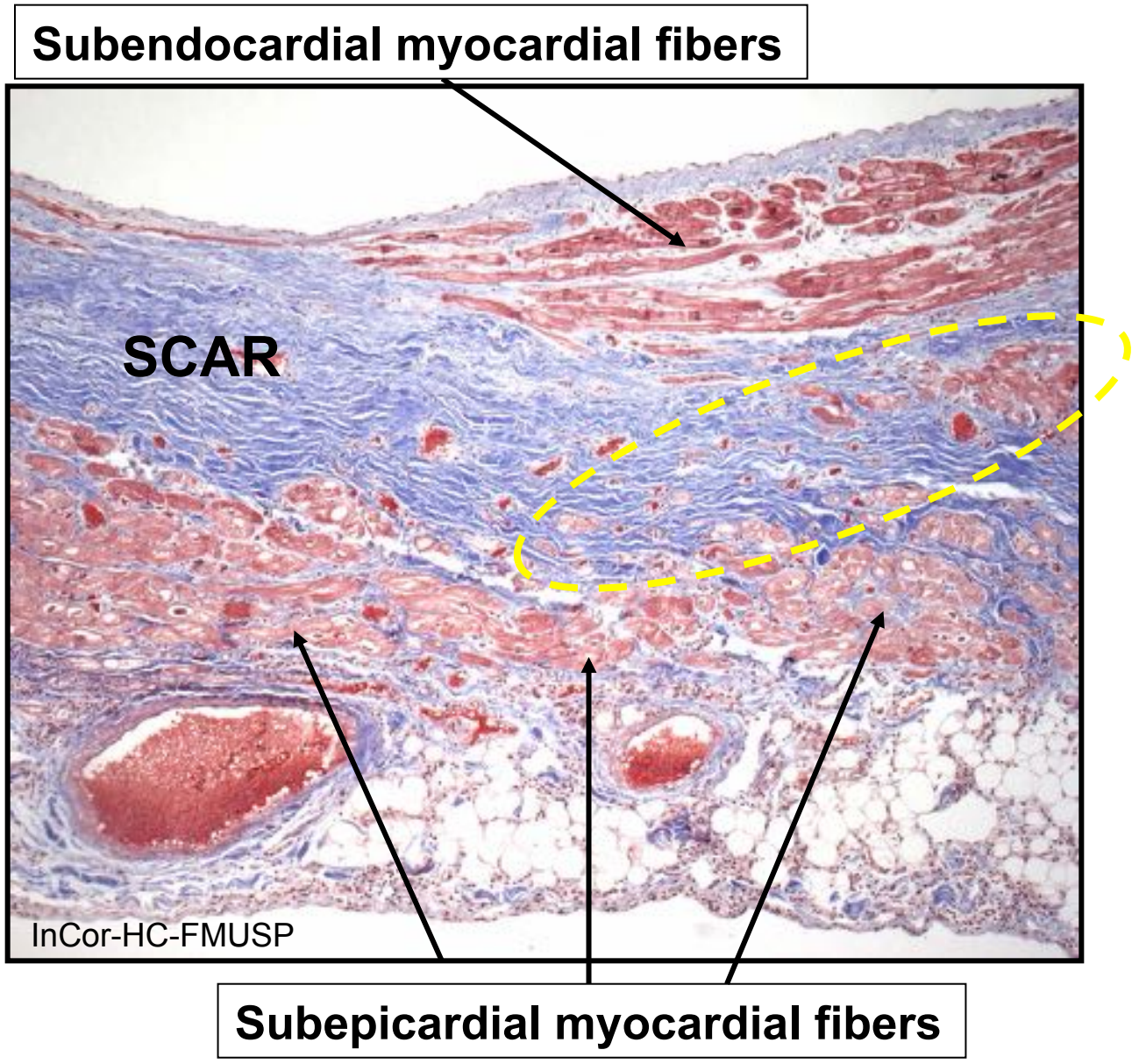




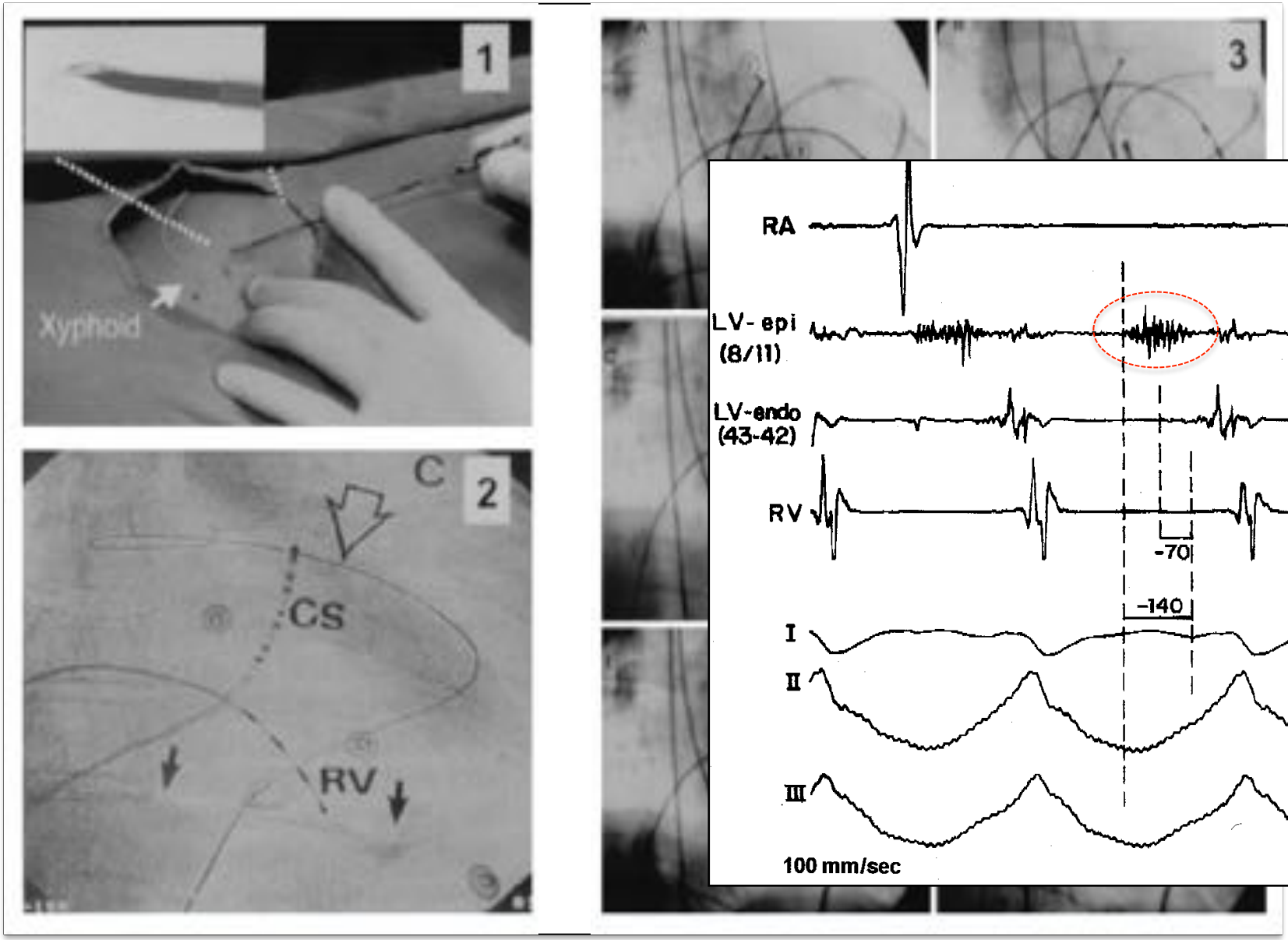
Catheter Ablation of Chagas VT
RF Endocardial Ablation



Substrate of Ventricular Tachycardia in Chagas Disease



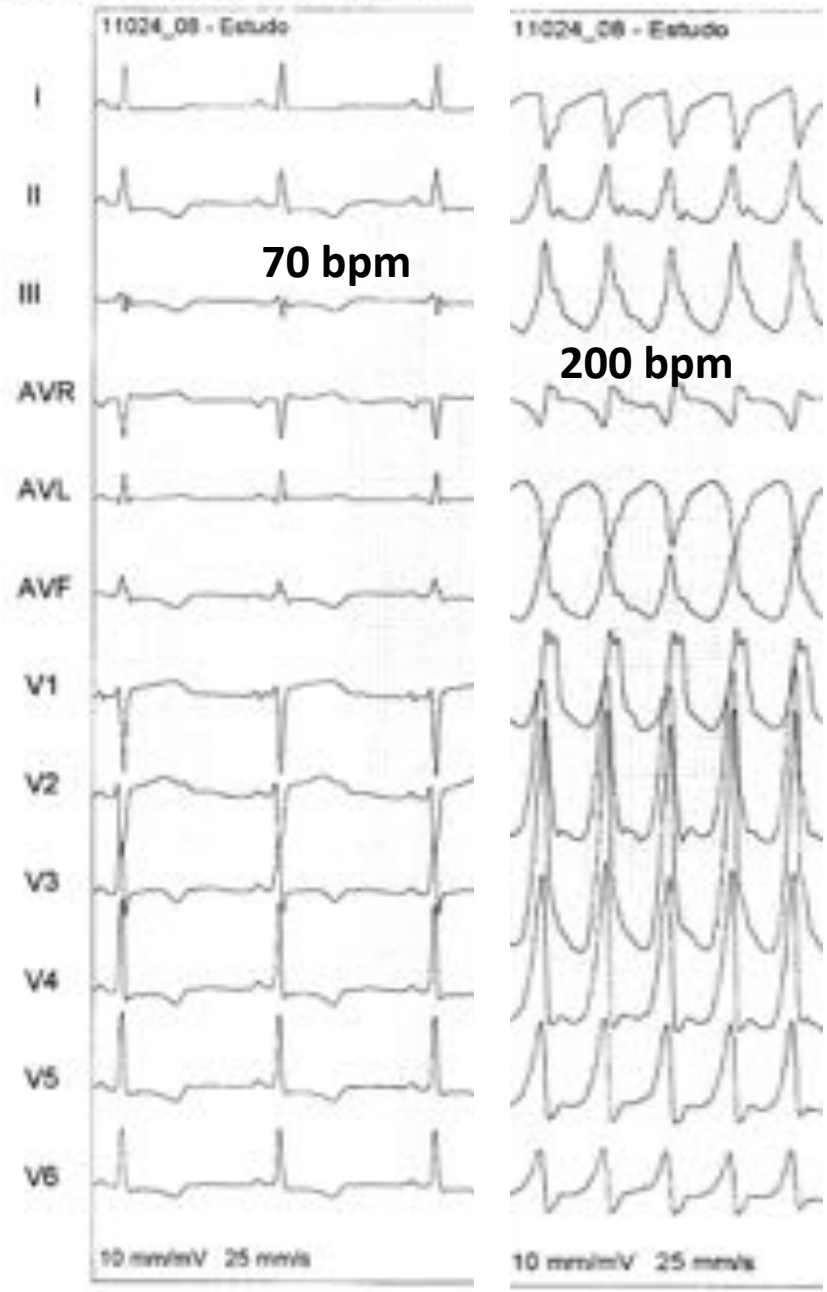
Transthoracic Epicardial Mapping of Chagas Ventricular Tachycardia

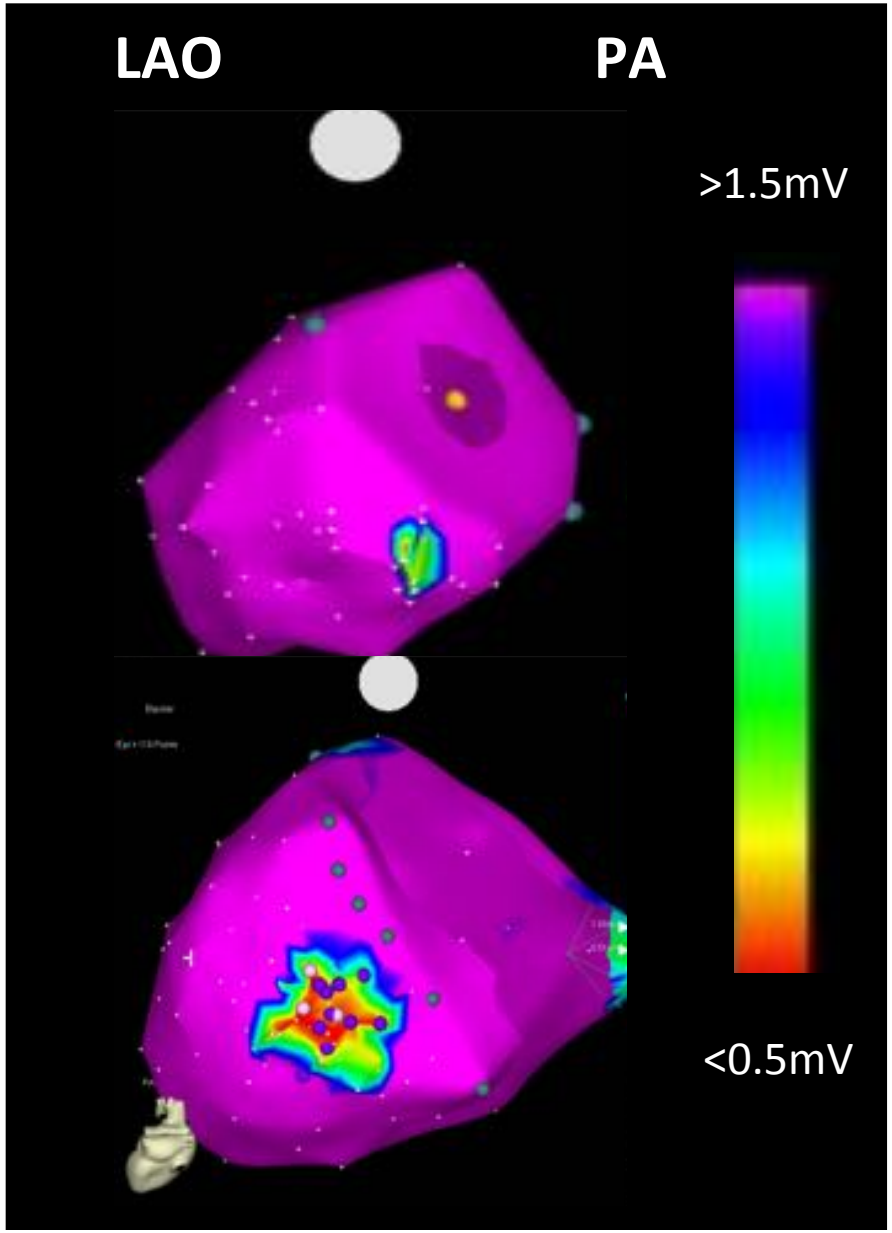


JCE 1996

Epicardial Chagas VT

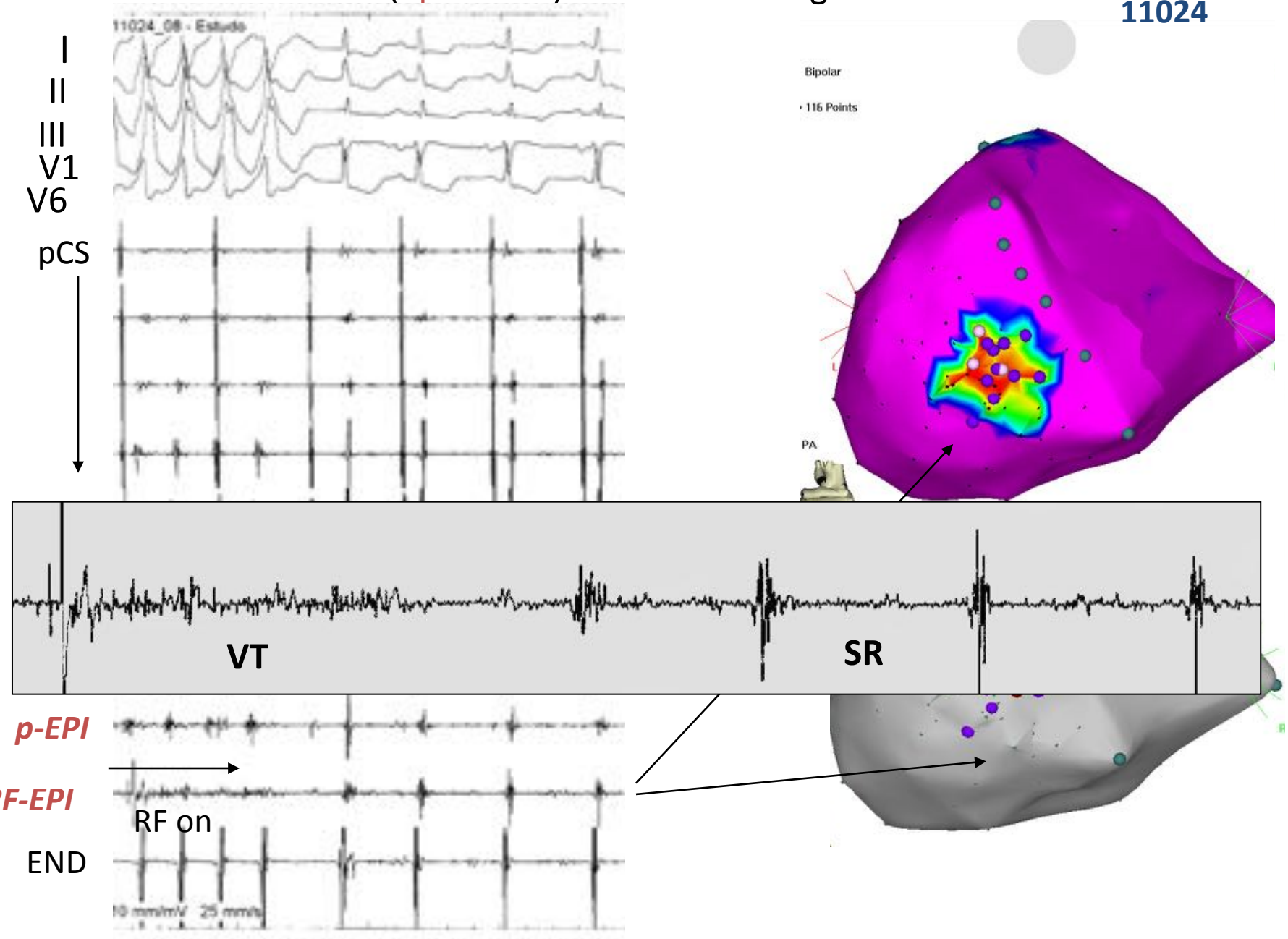
11024



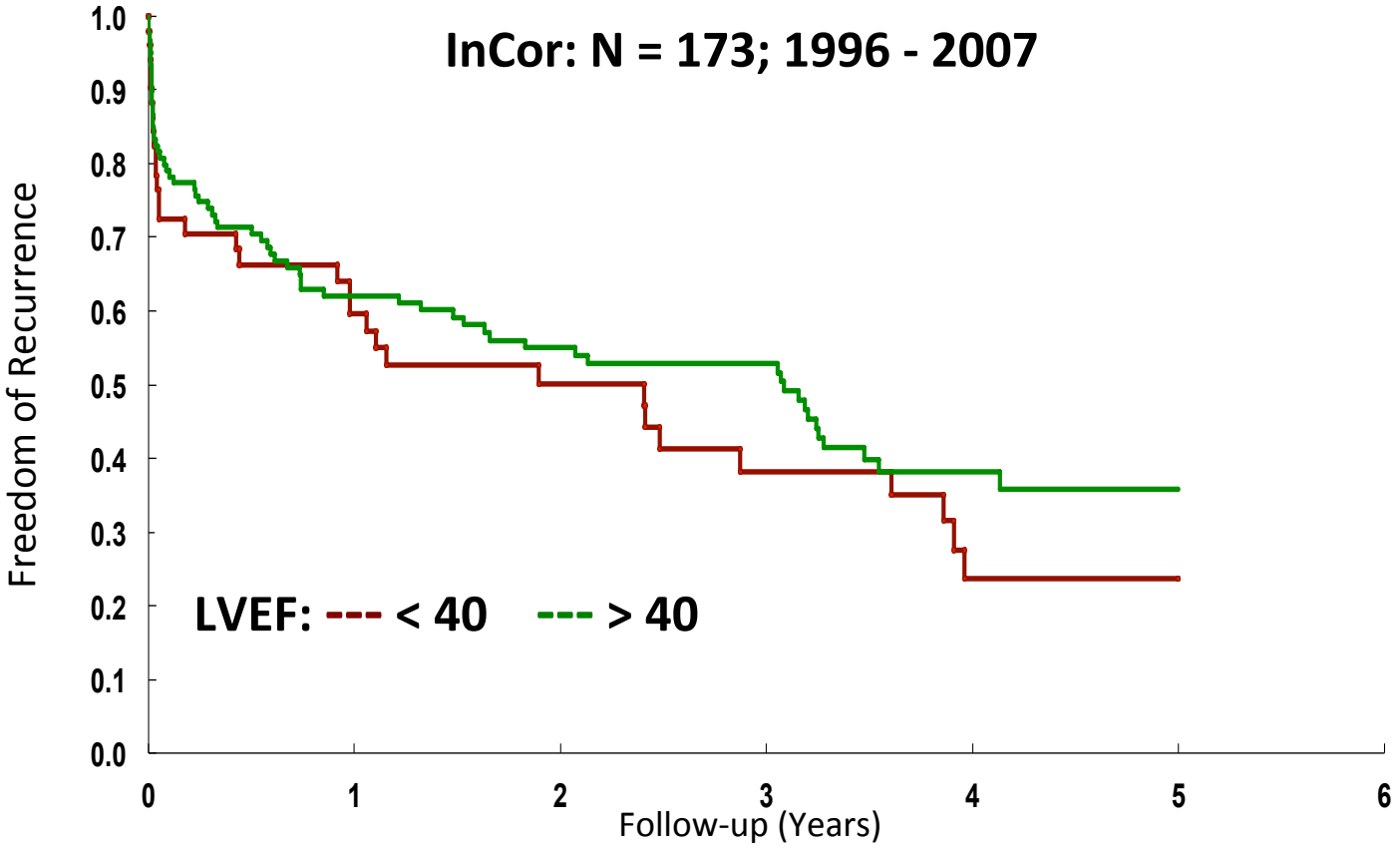


(epicardial) ablation of Chagas VT

11024

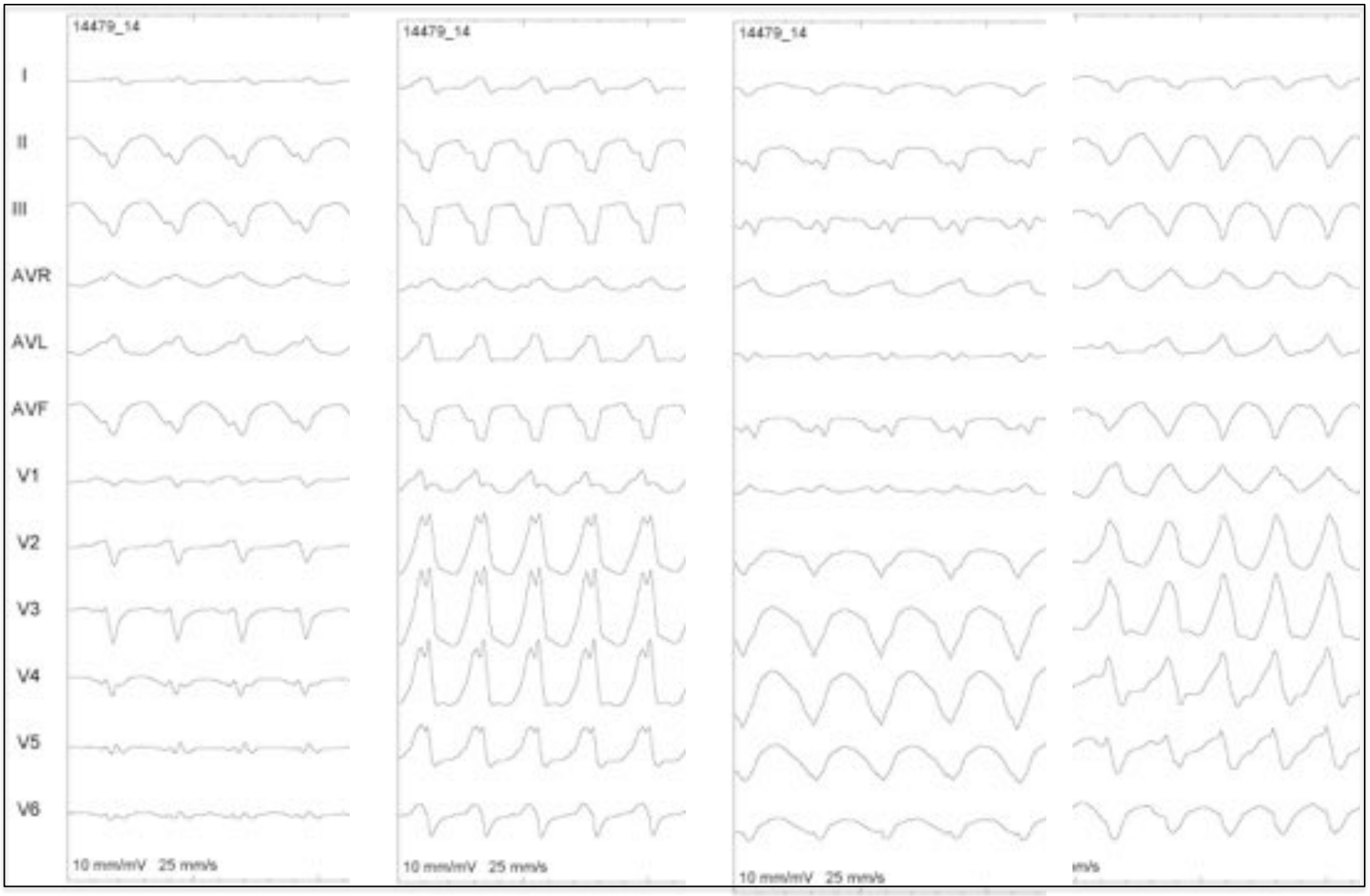


Combined Endo and Epicardial RF Ablation in Patients with Recurrent Chagas VT



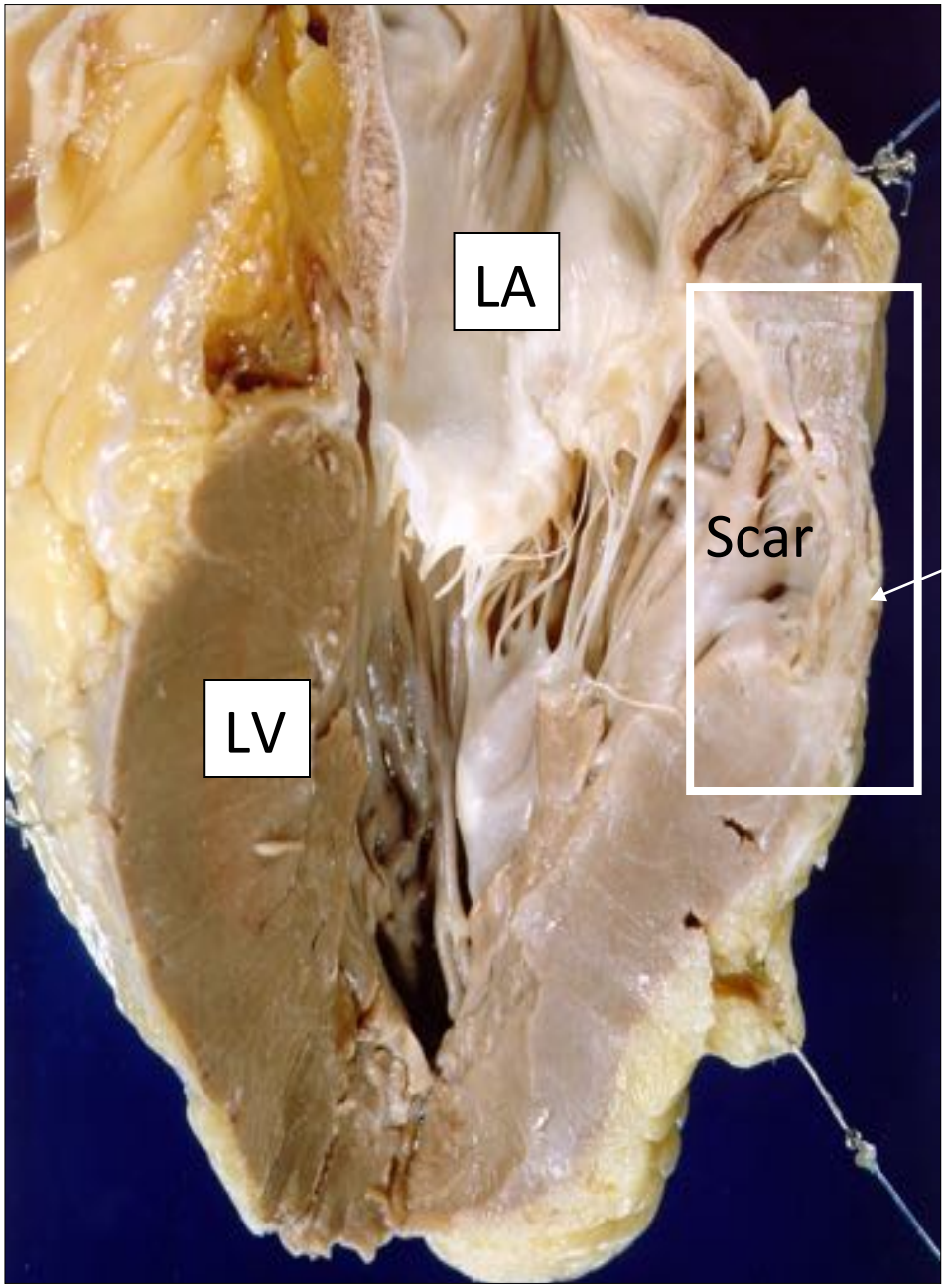
InCor –SP, Brazil

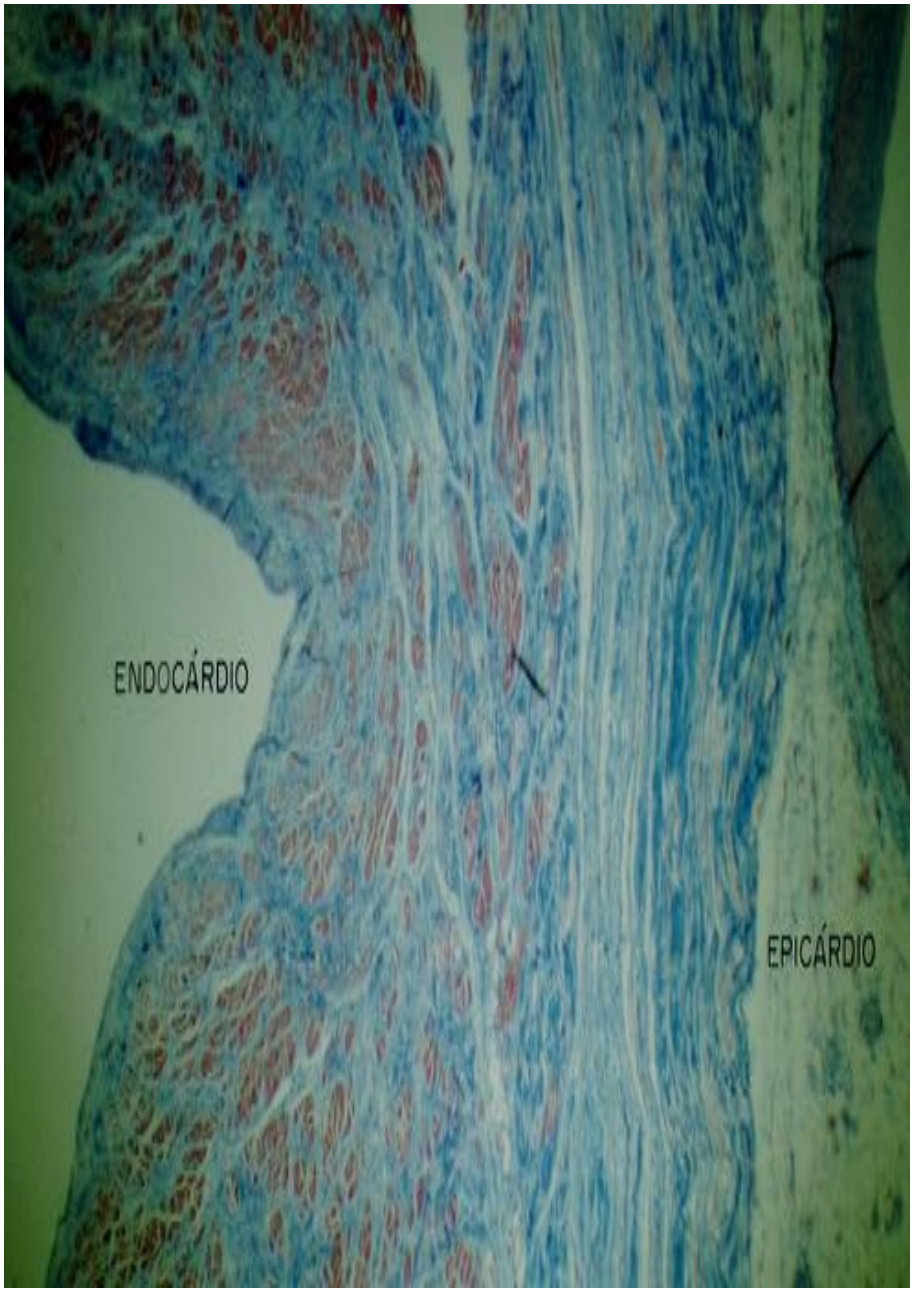
Male, 56 years old, Chagas disease, ICD since 2006, multiple appropriate shocks; EF = 0,25.



InCor 2014

Anatomic Substrate of Chagas VT

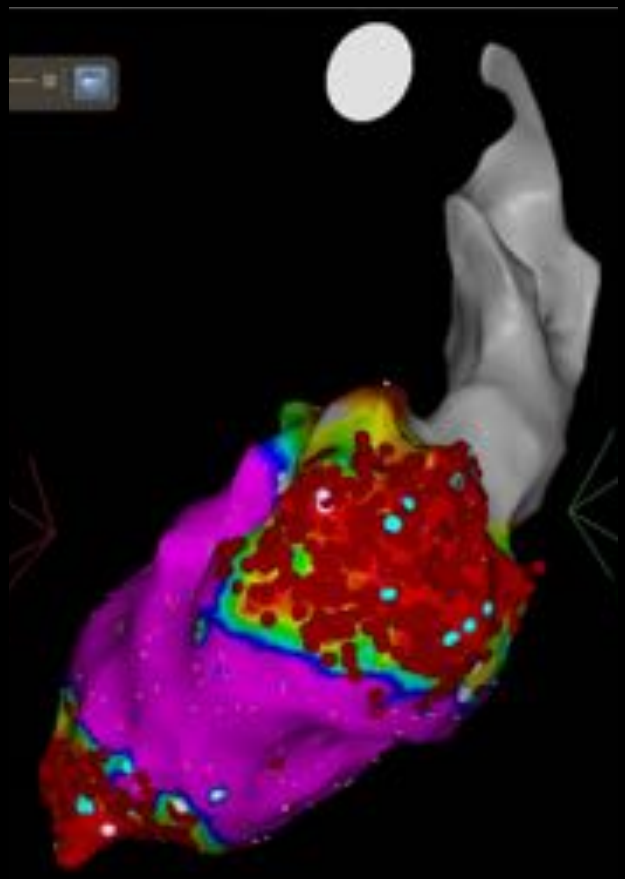




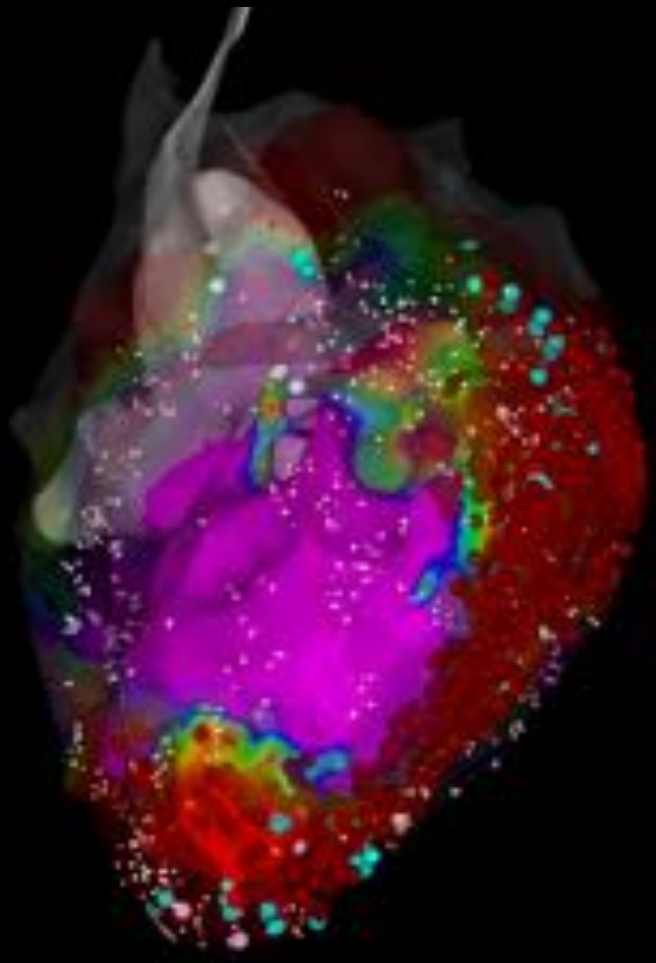
Chagas VT Ablation: Male, 56 years old, ICD since 2006, multiple appropriated shocks.
EF = 0,25.

Substrate Homogenization

ENDO



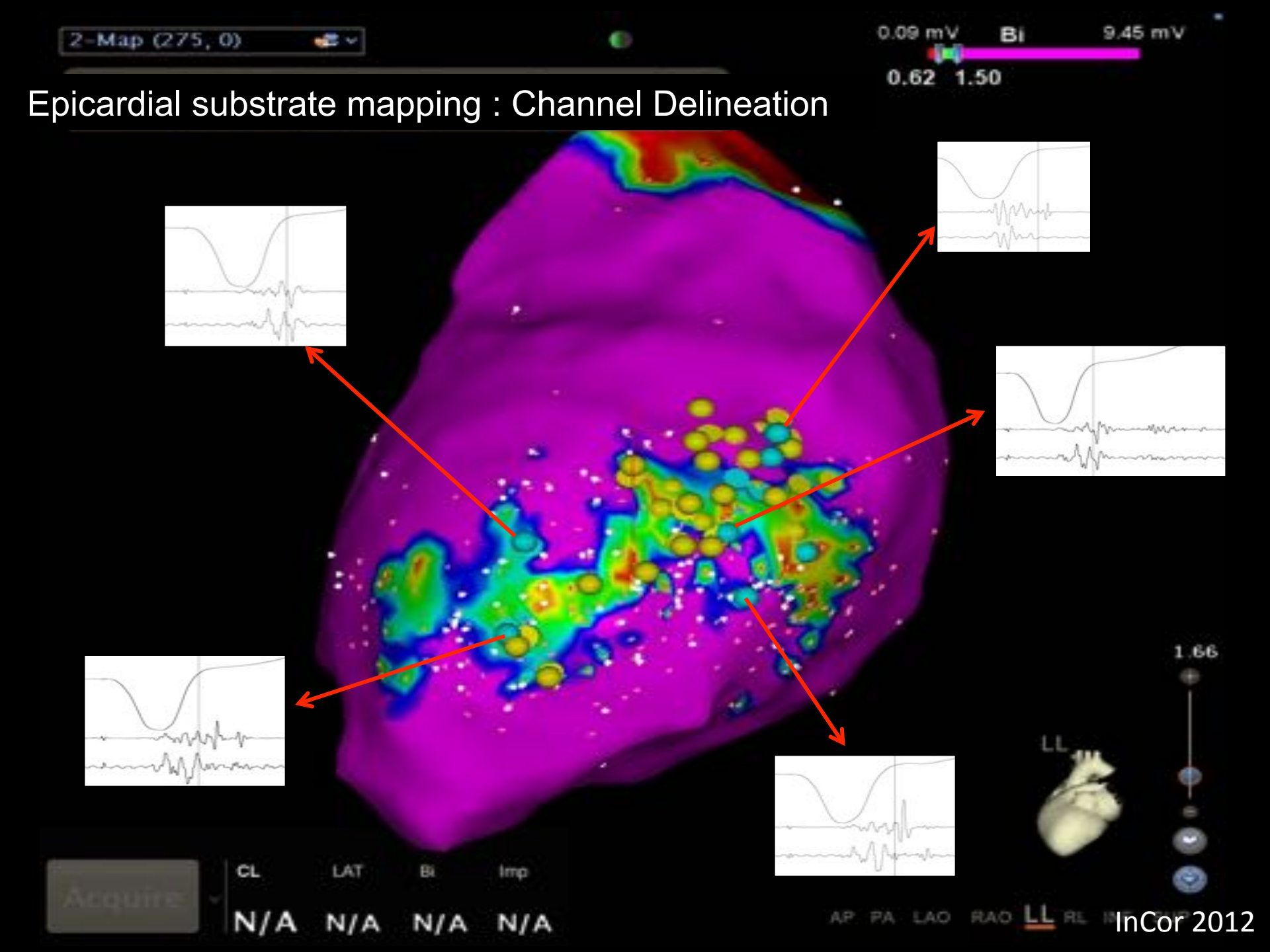
ENDO + EPI

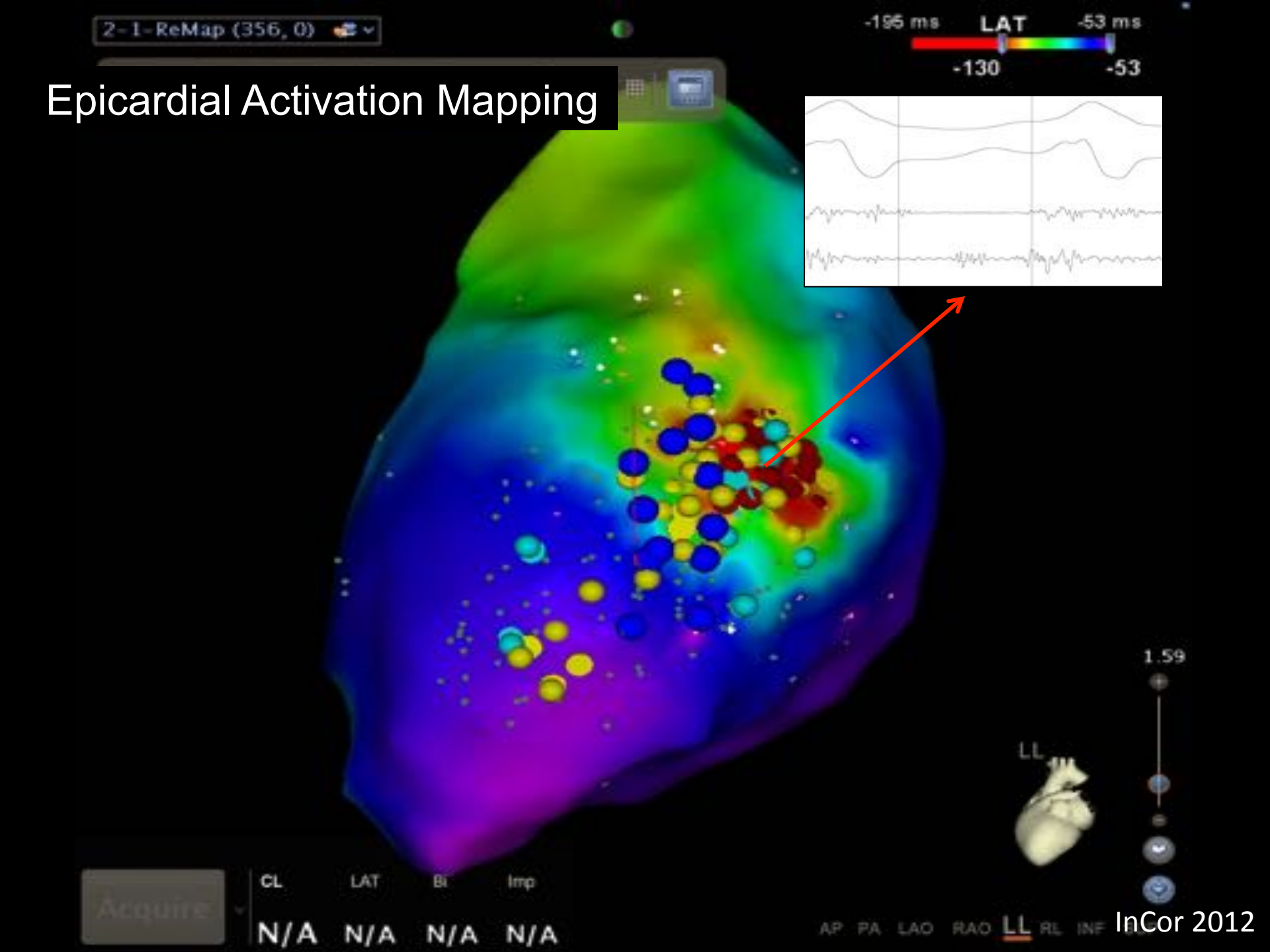


* 8 months follow-up without recurrences

InCor-2014

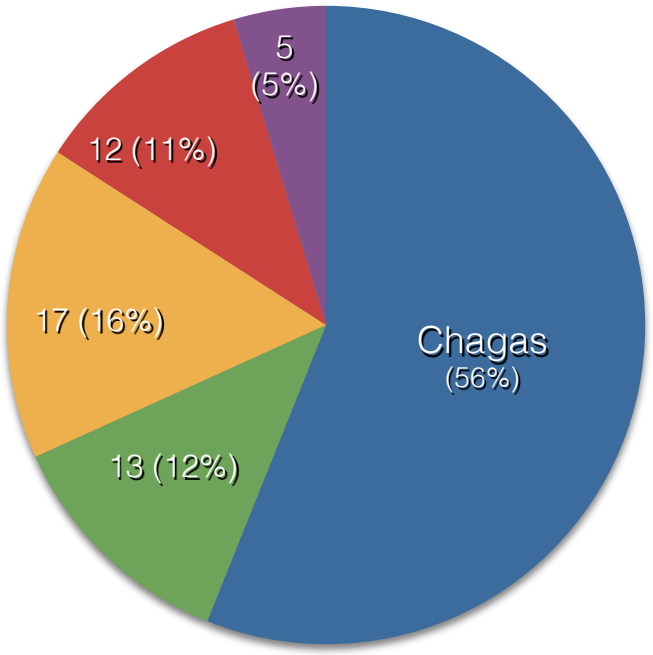
Epicardial substrate mapping : Channel Delineation




2-1-ReMap (356, 0)
-196 ms
LAT
-53 ms
-130
-53
Epicardial Activation Mapping
1.59
LL
CL
LAT
BI
Imp
N/A
N/A
N/A
N/A
AP
PA
LAO
RAO
LL
RL
INF
InCor 2012

VT Catheter Ablation in Structural Heart Diseases
- InCor: 2013 – 2014 -

- **107 Procedures**
  - **86 Patients**
    - **Age: 56,7±14 years**
    - **Male: 61 (70,9%)**
    - **LVEF: Média - 36,9±12,4%**
    - **Two ablations: 13 (14,8) patients**
    - **Three ablations: 2 (2,3%) patients**
    - **Four ablations: 1 (1,1%) patients**
  - **Epicardial ablation: 65 (60,7%)**
  - **Indications:**
    - **Recurrent VT: 56,4%**
    - **VT Storm: 41%**
    - **Slow VT: 2,5%**
      - **Amiodarone: 600mg**
      - **Lydocaine: 27%**

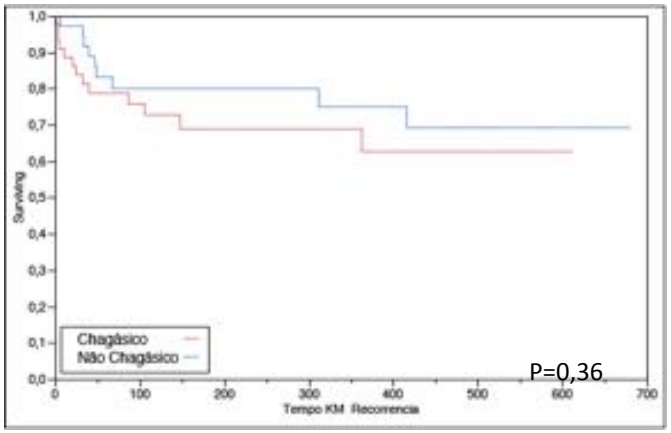


- Chagas disease: 60 patients
- Ischemic: 17 patients
- Idiopathic: 13 patients
- ARVD: 12 patients
- Other: 5

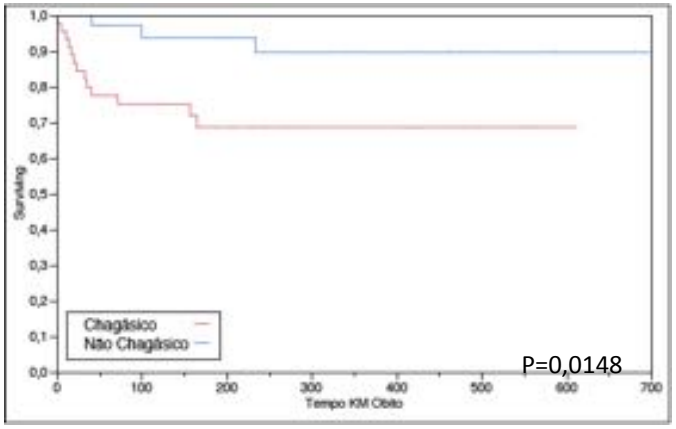
Epicardial and Endocardial Mapping and Ablation in Chagas' Disease - InCor 2013 - 2014

- N=60 (56,8%)
- Age: 58,8±9,6 years
- LVEF: 0,30 (0,28 a 0,39)
  - Two ablations: 8
  - Three ablations: 1
  - Four ablations: 1
- Epicardial ablation : 49 (81,7%)
- Procedure time: 330±143min
- Surgery:
  - Acute hemopericardium: 1
  - Late tamponate: 1

Freedom of VT

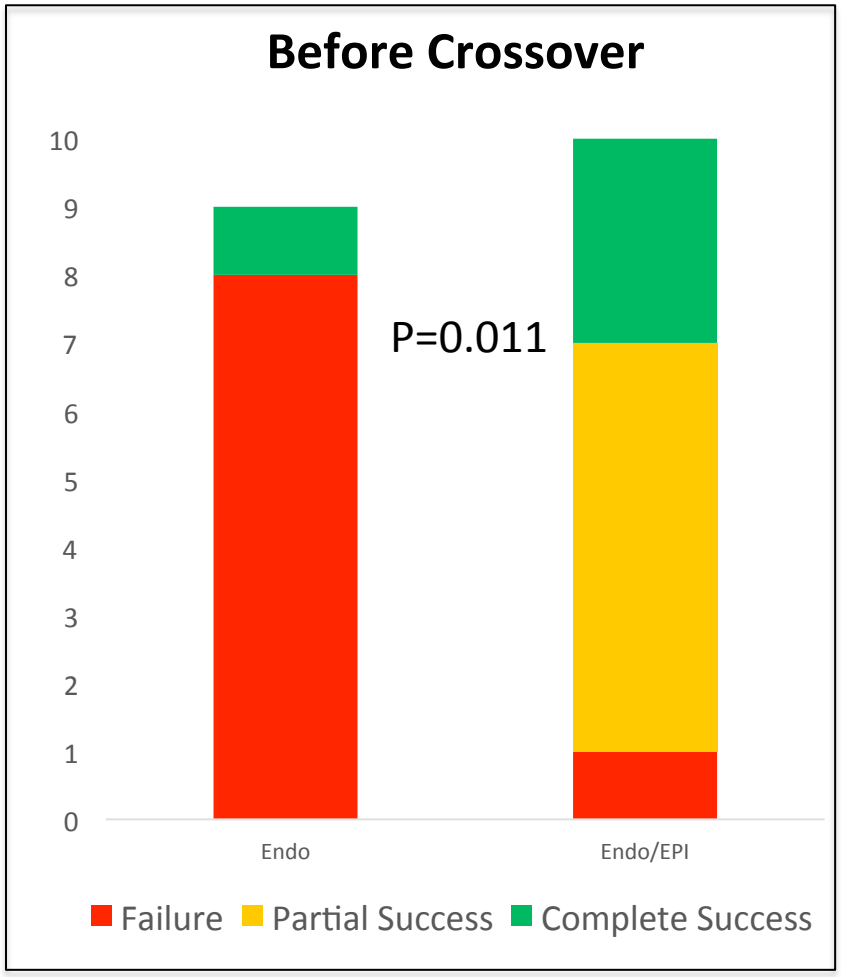


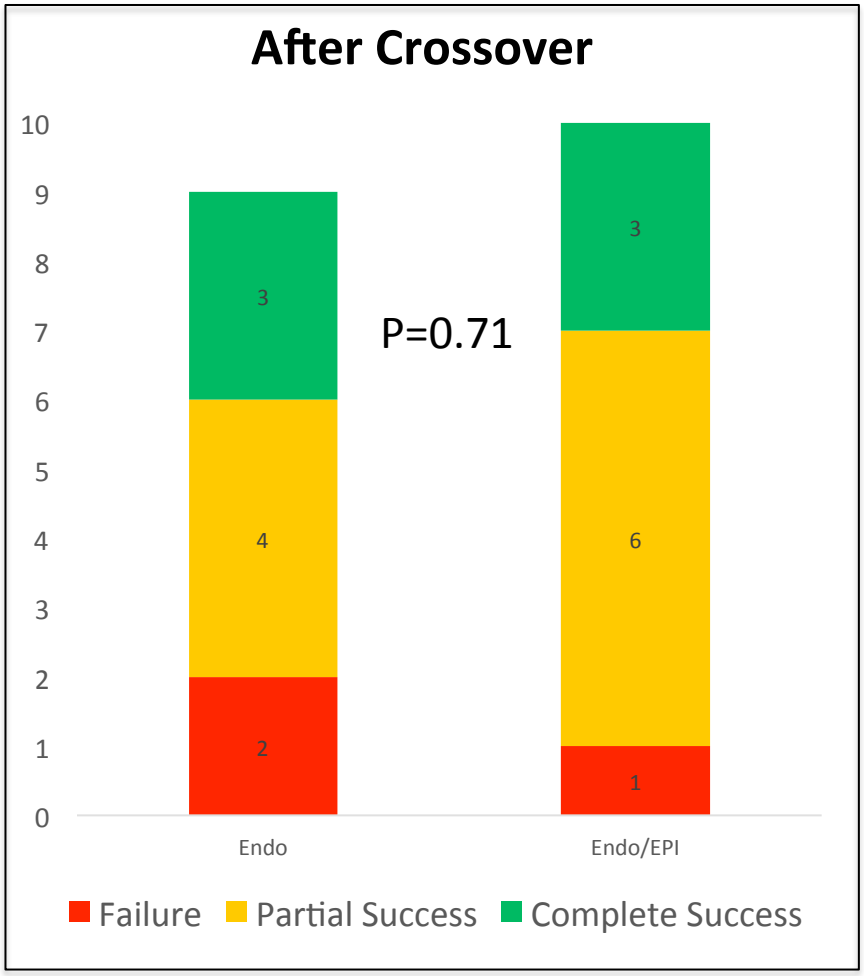
Death



Efficacy and Safety of Epicardial VT
Endo vs. Epi Randomized Pilot Trial

Partial Results In 19 patients





InCor 2015

RF Ablation of Sustained VT in Chagas´ Disease
- Summary -

- Chagas's VT is a re-entrant and scar-related tachycardia.
- Epicardial circuits are frequently found and the substrate is predominantly related to the LV infero-lateral basal wall.
- Catheter ablation is successful in short term, but late arrhythmia recurrence is common, suggesting disease progression, incomplete ablation or reversible target elimination.
- Combining endo and epicardial mapping and ablation can improve the results of percutaneous VT ablation.
- Previous knowledge about anatomical characteristics of the scar related VT may improve ablation results.

Cardiac Arrhythmia Unit

InCor – HC - FMUSP

Interventional Electrophysiologists:

Mauricio Scanavacca, Sissy Lara, Carina Hardy, Cristiano Pisani

Collaborators:

Muhieddine Omar Chokr , Hugo Bellotti

Clinical Electrophysiologists:

Denise Hachul, Francisco Darrieux, Tan Chen Wu, Luciana Sacilotto

Collaborators:

Pedro Veronese, Mirela Facin, Martina Battistini

Nurses:

Ana Lucia Coimbra, Talita Barbosa

Administrative:

Roberta Simonetti; Vanda Silva, Luciana Eira