Jak na bradykardie a synkopy u mladých pacientů

Dan Wichterle

INSTITUT KLINICKÉ A EXPERIMENTÁLNÍ MEDICÍNY
KLINIKA KARDIOLOGIE
IKEM

ESC European Society of Cardiology

European Heart Journal (2018) **00**, 1–69
doi:10.1093/eurheartj/ehy037

ESC GUIDELINES

2018 ESC Guidelines for the diagnosis and management of syncope

The Task Force for the diagnosis and management of syncope of the European Society of Cardiology (ESC)

Developed with the special contribution of the European Heart Rhythm Association (EHRA)

Endorsed by: European Academy of Neurology (EAN), European Federation of Autonomic Societies (EFAS), European Federation of Internal Medicine (EFIM), European Union Geriatric Medicine Society (EUGMS), European Society of Emergency Medicine (EuSEM)

Authors/Task Force Members: Michele Brignole* (Chairperson) (Italy), Angel Moya* (Co-chairperson) (Spain), Frederik J. de Lange (The Netherlands), Jean-Claude Deharo (France), Perry M. Elliott (UK), Alessandra Fanciulli (Austria), Artur Fedorowski (Sweden), Raffaello Furlan (Italy), Rose Anne Kenny (Ireland), Alfonso Martín (Spain), Vincent Probst (France), Matthew J. Reed (UK), Ciara P. Rice (Ireland), Richard Sutton (Monaco), Andrea Ungar (Italy), and J. Gert van Dijk (The Netherlands)

Brignole M et al. Eur Heart J 2018.
doi: 10.1093/eurheartj/ehy037

Léčba reflexní (neurokardiogenní) synkopy

Léčba	Indikační třída
Režimová opatření	I
Vysazení hypotenziv	I
Tilt tréning	II b
Counter-pressure manévr	II a
Betablokátory	III
Fludrocortison	II b
Midodrin	II b
Kardiostimulace	II a/b

Převážně pro vasodepresorické synkopy

Brignole M et al. Eur Heart J 2018.
doi: 10.1093/eurheartj/ehy037

Indikace kardiostimulace

Evidence je jen pro pacienty > 40 let

Kardioinhibice dokumentována …	Indikační třída
… při karotické masáži	**II a**
… při tilt testu	**II b**
… při monitoraci v běžném životě (ILR) *	**II a**

* Pauza >3 sec při synkopě nebo >6 sec asymptomatická

Brignole M et al. Eur Heart J 2018.
doi: 10.1093/eurheartj/ehy037

Kardioneuroablace (ablace gangliových plexů)

Europace (2005) 7, 1–13

ELSEVIER

"Cardioneuroablation" – new treatment for neurocardiogenic syncope, functional AV block and sinus dysfunction using catheter RF-ablation

Jose C. Pachon M*, Enrique I. Pachon M, Juan C. Pachon M, Tasso J. Lobo, Maria Z. Pachon, Remy N.A. Vargas, Adib D. Jatene

Sao Paulo Heart Hospital and Dante Pazzanese Cardiology Institute, Pacemaker and Arrhythmias, Acoce, 515/31 Indianopolis, 04075023 Sao Paulo, SP, Brazil

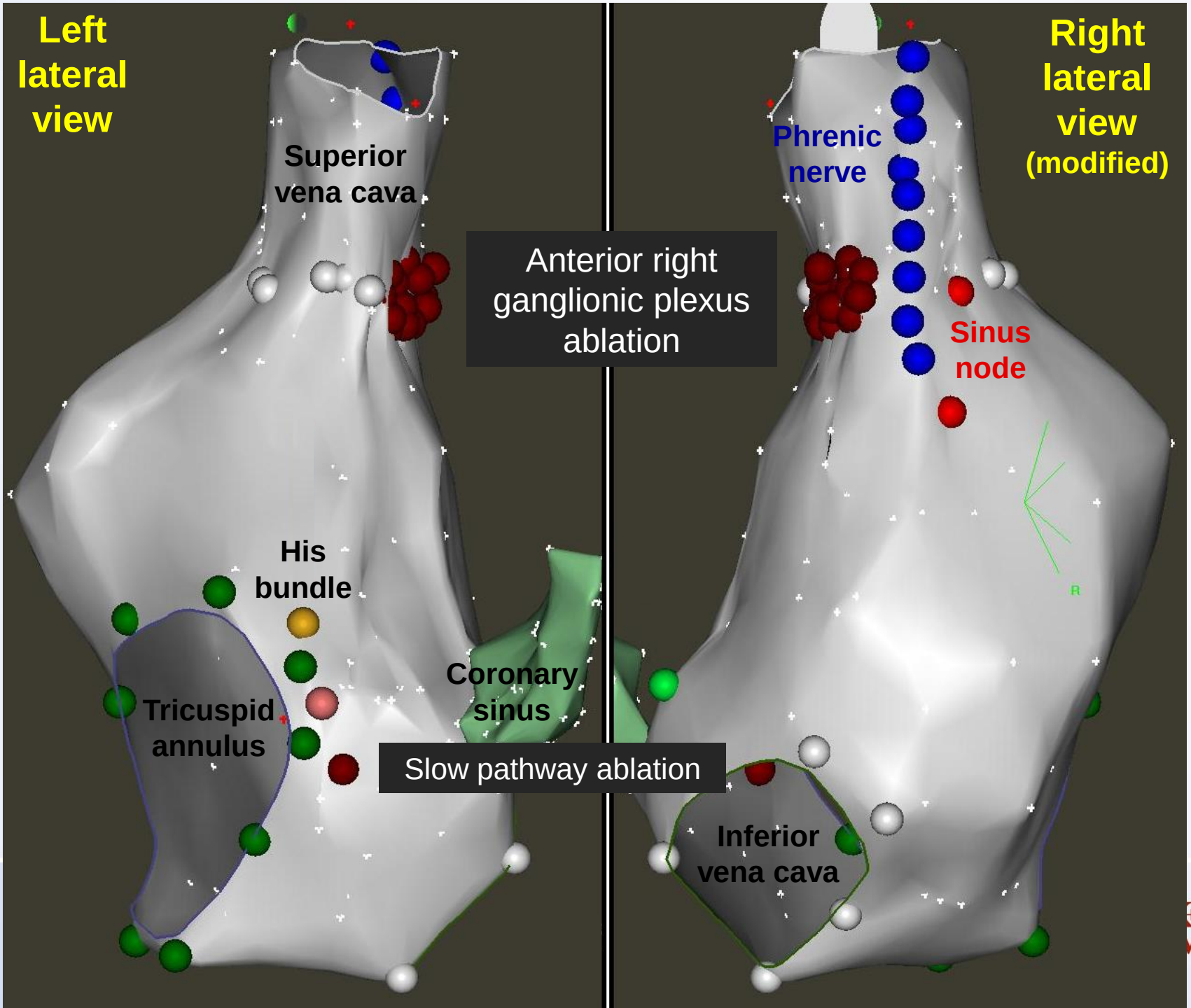
Submitted 4 September 2004, and accepted after revision 5 October 2004

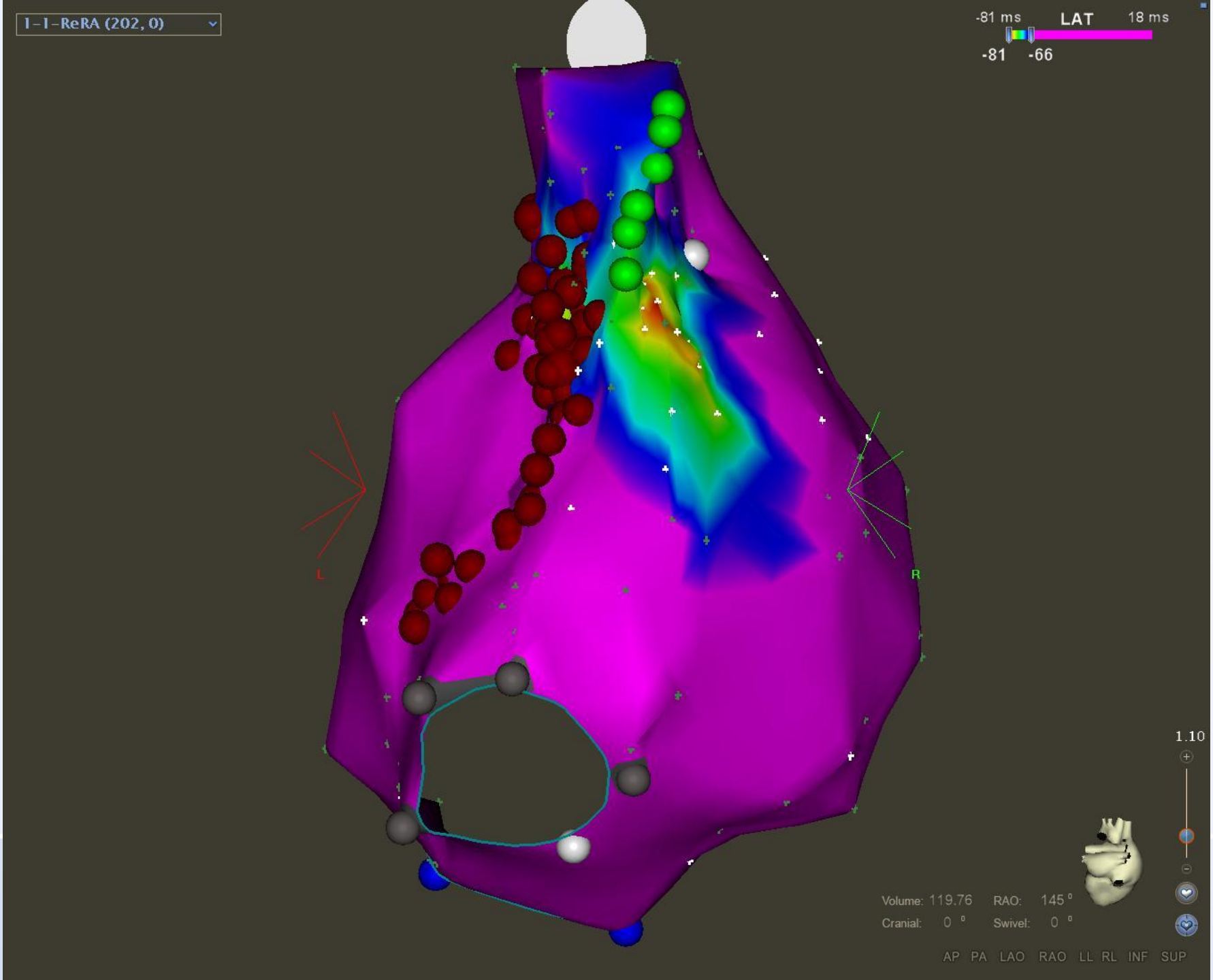
Pachon JC et al. Europace 2005;7:1-13

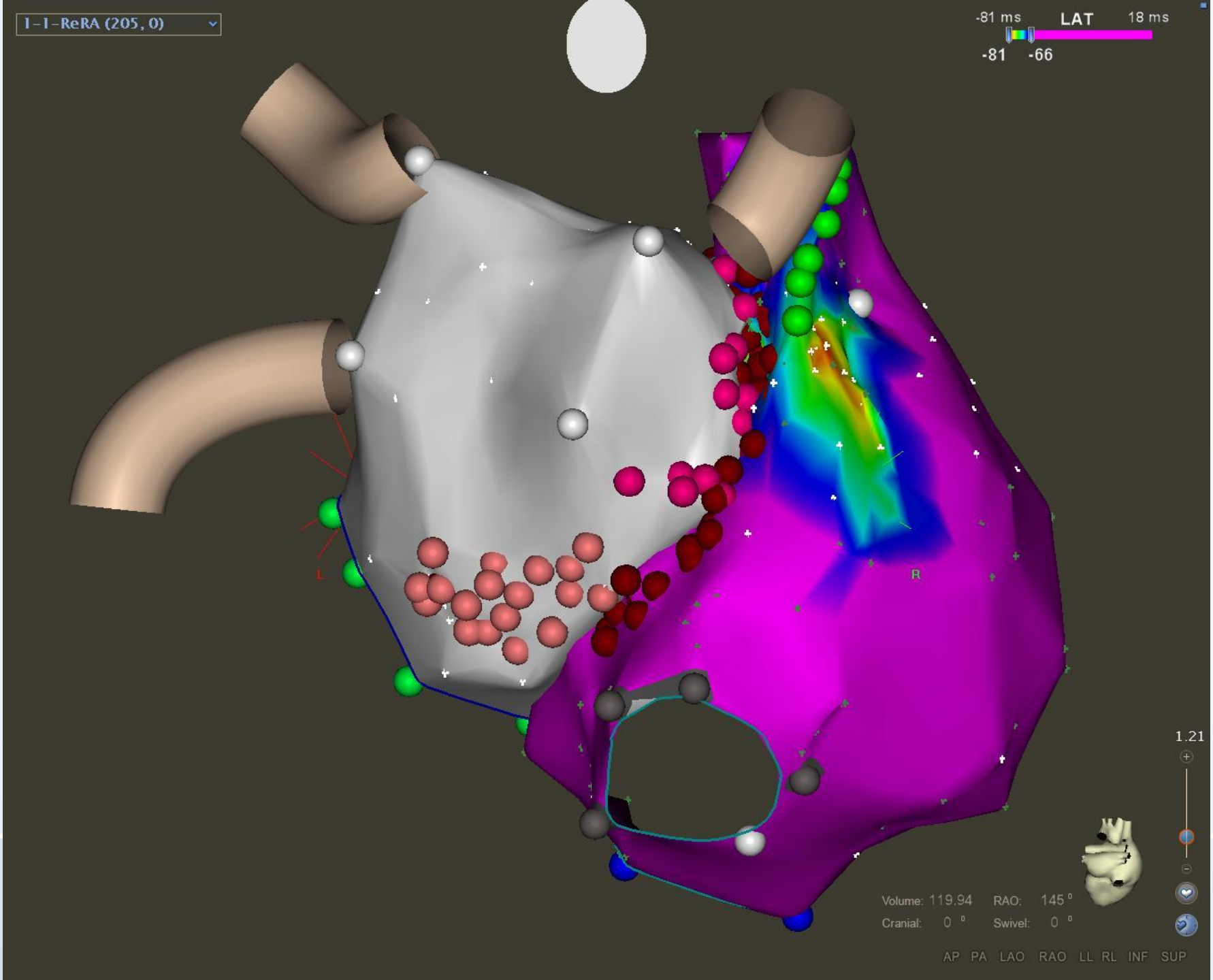
ESC 2018 guidelines

Ganglionic plexus ablation. Radiofrequency ablation of vagal ganglia located close to the sinus node and AV node was reported to abolish the vagal efferent output during VVS in some observational studies and case reports.[290,291] However, owing to a weak rationale, small populations, weak documentation of follow-up results, procedural risks, and lack of control groups, the current evidence is insufficient to confirm the efficacy of vagal ganglia ablation.

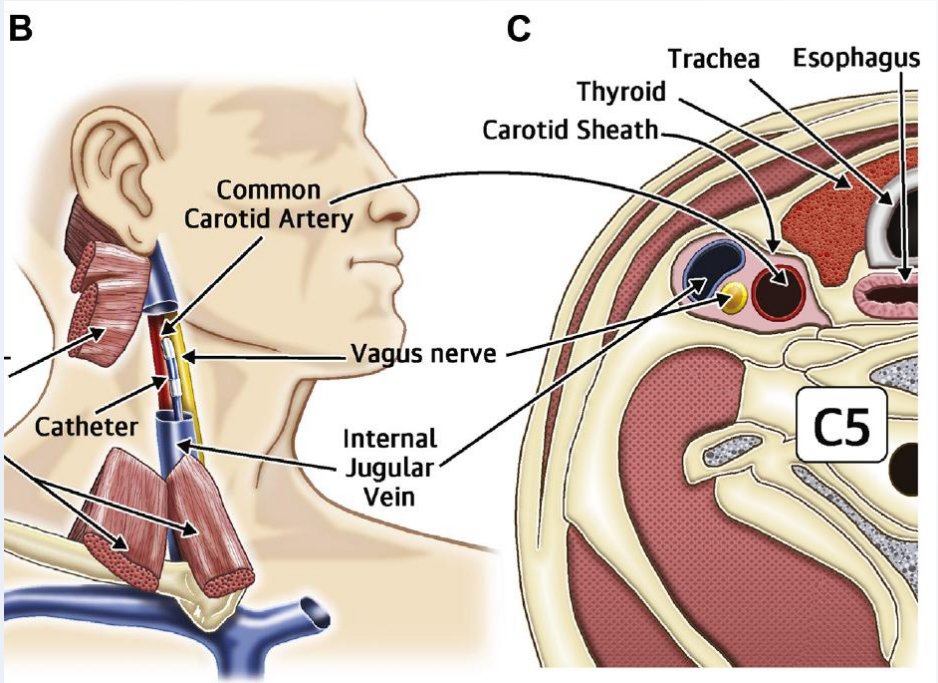
Brignole M et al. Eur Heart J 2018.
doi: 10.1093/eurheartj/ehy037

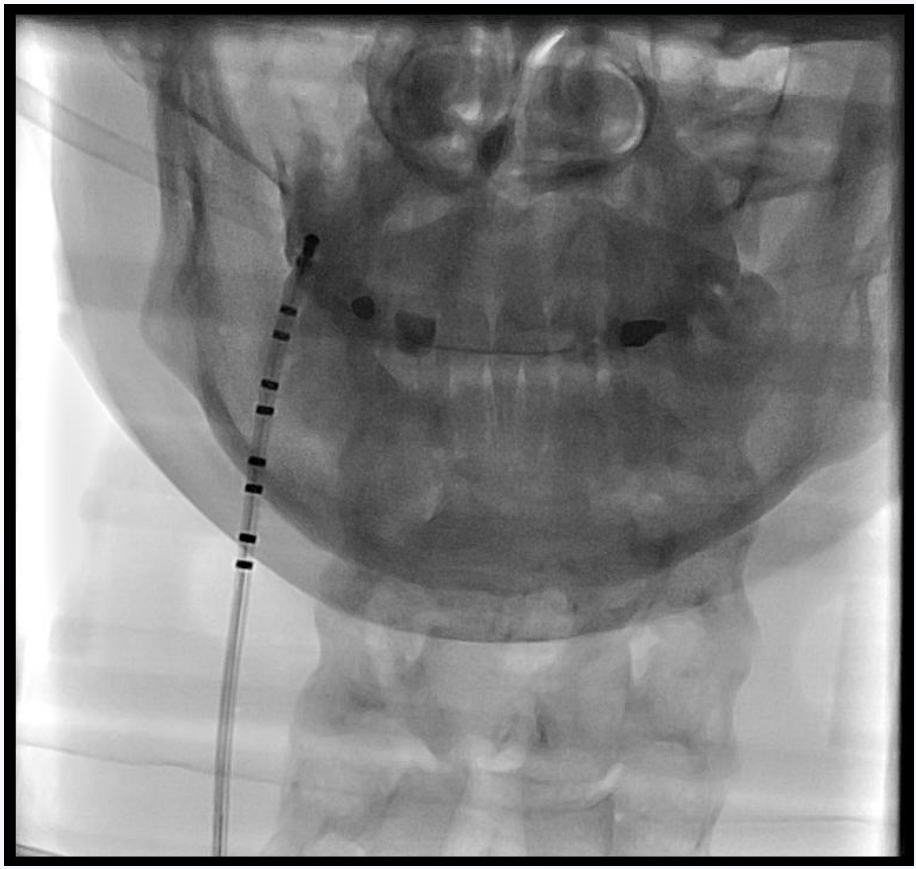

Left lateral view
Superior vena cava
Anterior right ganglionic plexus ablation
His bundle
Tricuspid annulus
Coronary sinus
Slow pathway ablation
Inferior vena cava
Phrenic nerve
Right lateral view (modified)
Sinus node


I-I-ReRA (202, 0)
-81 ms
LAT
18 ms
-81
-66
L
R
1.10
Volume: 119.76
RAO: 145 °
Cranial: 0 °
Swivel: 0 °
AP PA LAO RAO LL RL INF SUP


I-I-ReRA (205, 0)
-81 ms
LAT
18 ms
-81
-66
1.21
Volume: 119.94
RAO: 145 °
Cranial: 0 °
Swivel: 0 °
AP PA LAO RAO LL RL INF SUP

High-frequency vagal stimulation (HFS)



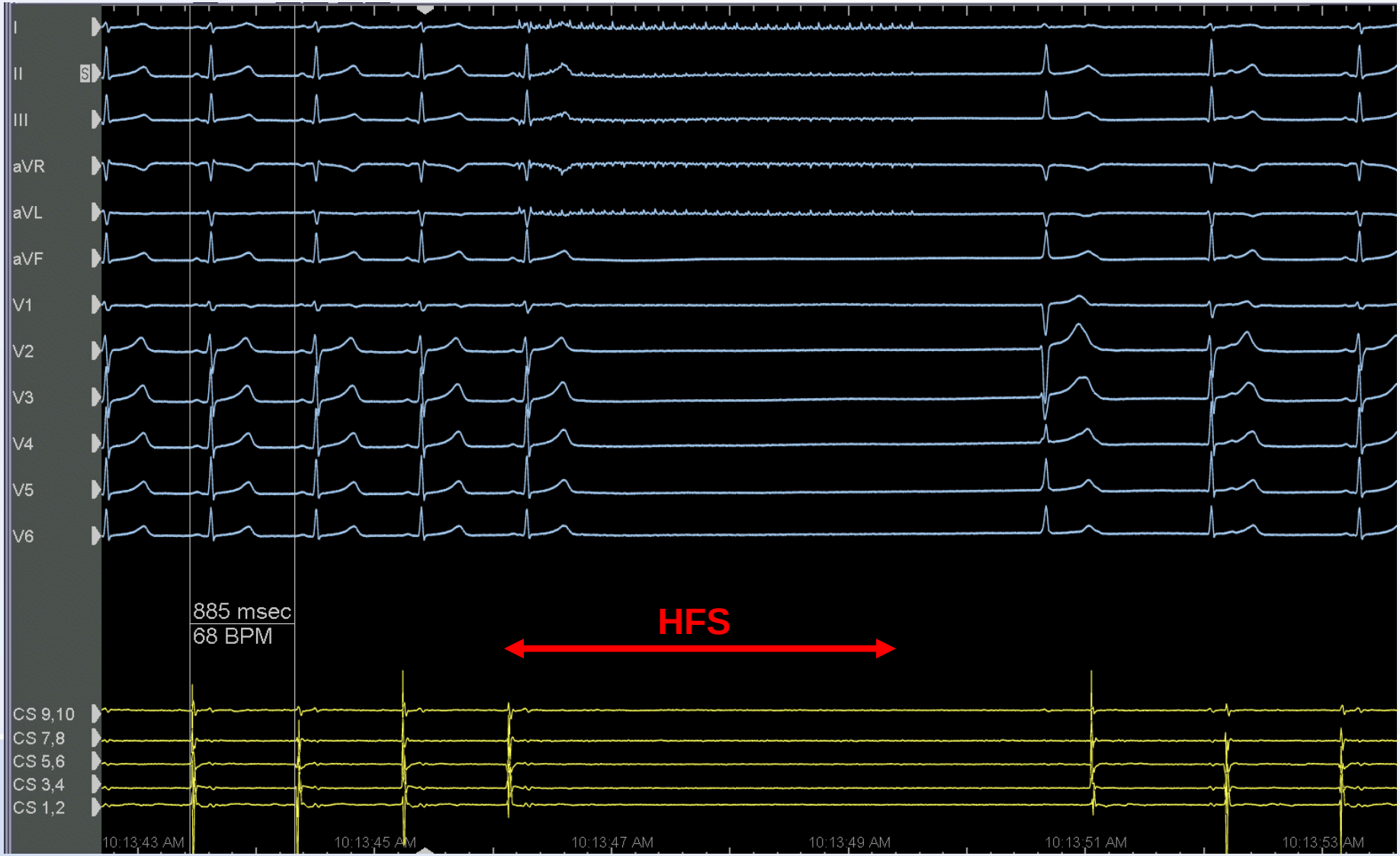


- 30 Hz
- 30 - 70 V
- 0.05 - 0.1 ms

Pachon JC et al. JACC: Clinical Electrophysiology 2015;5:451-60.

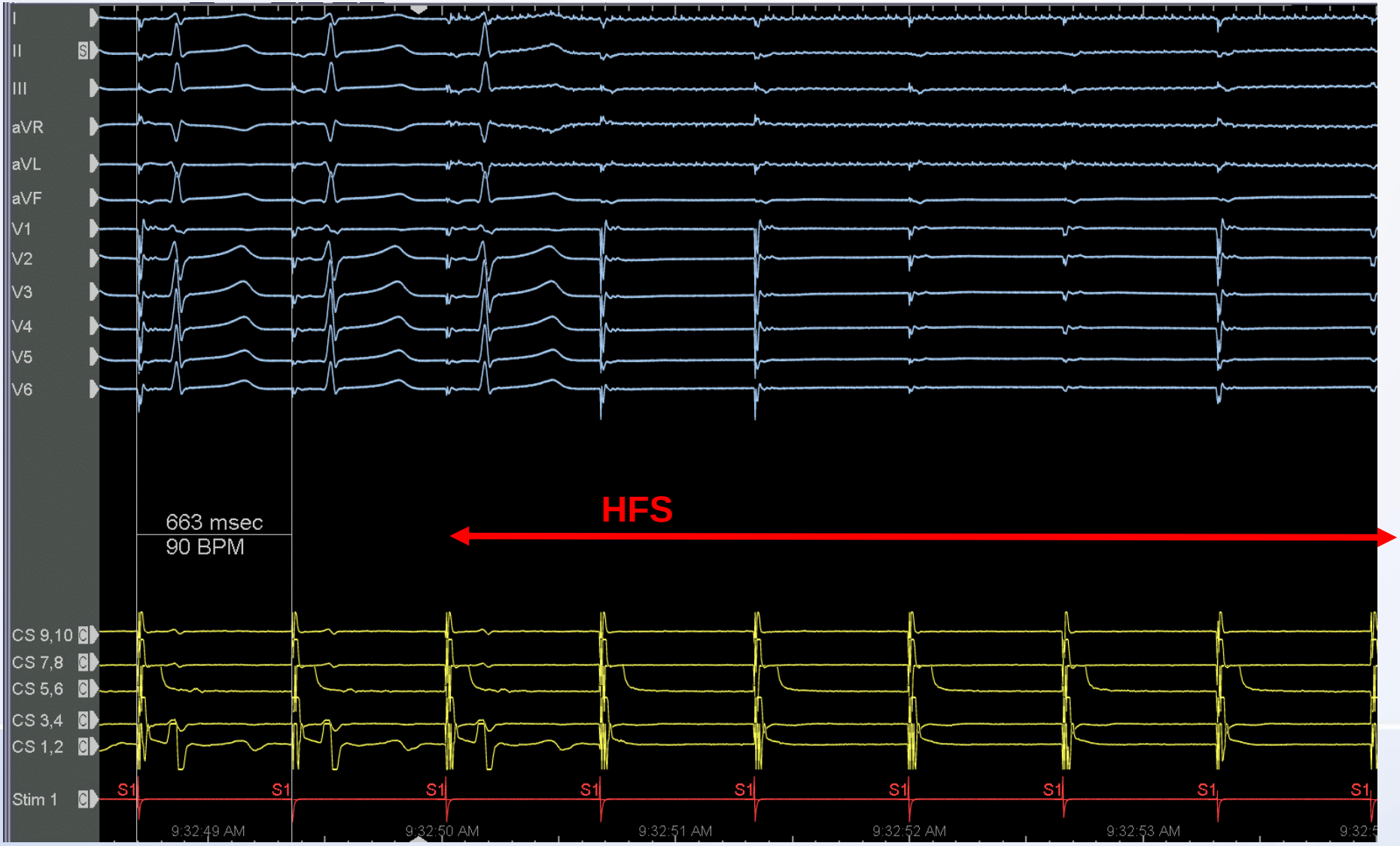
High-frequency vagal stimulation (HFS)

Baseline: sinus arrest



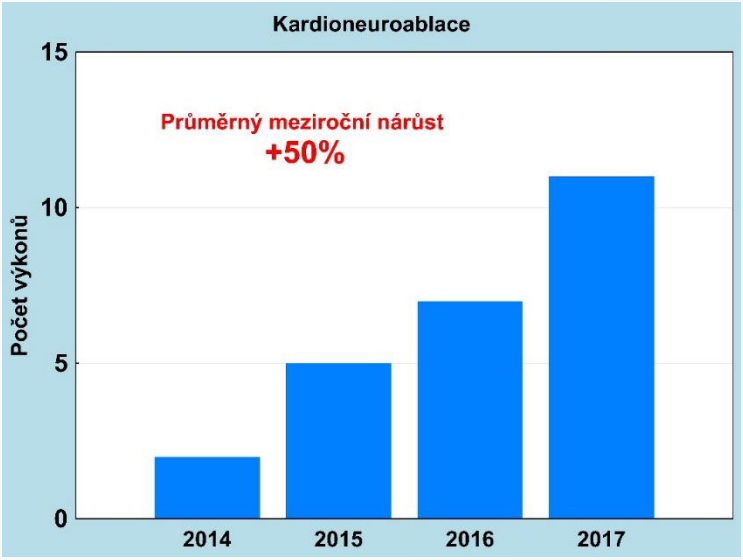
High-frequency vagal stimulation (HFS)

Baseline: AV block



Kardioneuroablace 2014-2018

- **Celkem 31 výkonů**
- **Follow up:**
  18 měsíců (IQR: 12-31)



Klinické charakteristiky (N = 20)	
Věk (roky)	35 ± 10
Muži	65%
Max. pauza (sec)	8 (IQR: 5-14)
Porucha SAN	9 (45%)
Porucha AVN	8 (40%)
Porucha SAN+AVN	3 (15%)

Procedurální charakteristiky (N = 20)	
Procedurální čas (min)	146 ± 35
Radiační dávka (μGy.m^2)	50 ± 48
Ablace ARGP	20 (100%)
Ablace IRGP	11 (55%)
Ablace ILGP	8 (40%)
Ablace SLGP	0 (0%)

Rekurence/reablace: 2 (10%)

XXVI. VÝROČNÍ SJEZD ČESKÉ KARDIOLOGICKÉ SPOLEČNOSTI

BRNO (pavilon E – I. patro) – pondělí 7. 5. 2018

Česká asociace pro srdeční rytmus

14:10-15:10 KAZUISTICKÉ SYMPOZIUM – ŠIRŠÍ EFEKTY KATETRIZAČNÍ ABLACE

Předsedající: R. Čihák, L. Haman (Praha, Hradec Králové)

14:55 158. MLADÝ PACIENT S VAZOVAGÁLNÍ SYNKOPU

D. Wichterle (Praha)

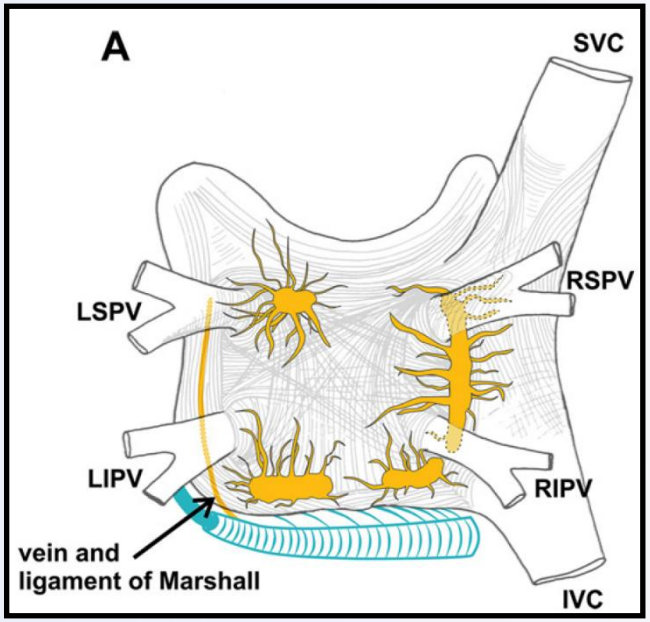
ACC/AHA/HRS 2017 guidelines

5. REFLEX CONDITIONS: RECOMMENDATIONS

5.1. Vasovagal Syncope: Recommendations

VVS is the most common cause of syncope and a frequent reason for ED visits.[66] The underlying pathophysiology of VVS results from a reflex causing hypotension and bradycardia, triggered by prolonged standing or exposure to emotional stress, pain, or medical procedures.[361–365] An episode of VVS is typically associated with a prodrome of diaphoresis, warmth, and pallor, with fatigue after the event. Given the benign nature of VVS and its frequent remissions, medical treatment is usually not required unless conservative measures are unsatisfactory. In some patients, effective treatment is needed, as syncopal events may result in injury and an impaired quality of life (QoL).[366–368] Despite the need and substantial efforts by investigators, there are limited evidence-based therapeutic options.[369] Preliminary data from cardiac ganglia plexi ablation in treating selected patients with VVS are encouraging but still insufficient to make recommendations at this time.[370–372] See Figure 4 for the algorithm for treatment of VVS.

Shen WK et al. 2017 ACC/AHA/HRS Guideline for the Evaluation and Management of Patients With Syncope. Circulation 2017;136(5):e60-e122


A
SVC
RSPV
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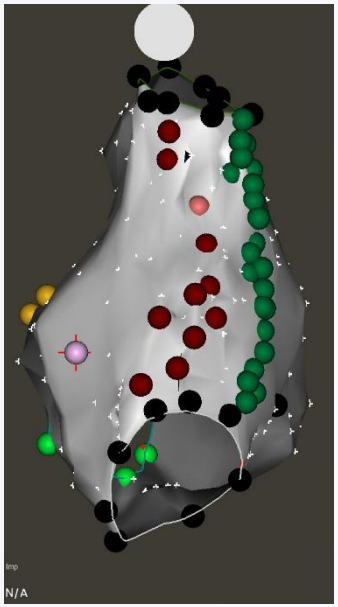
IVC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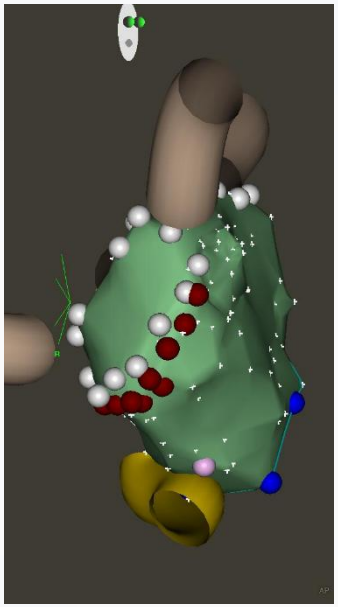

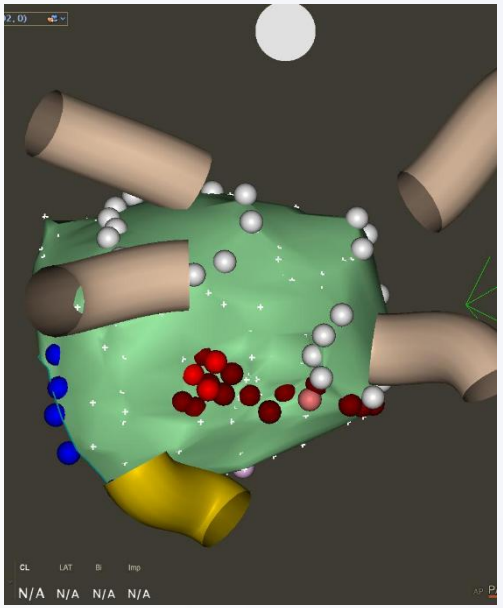
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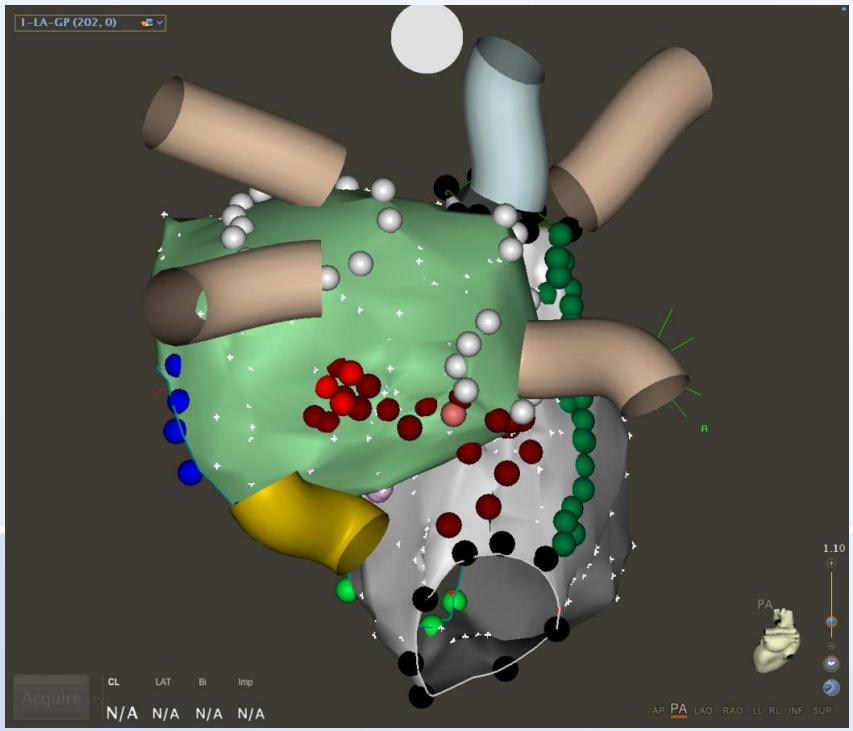
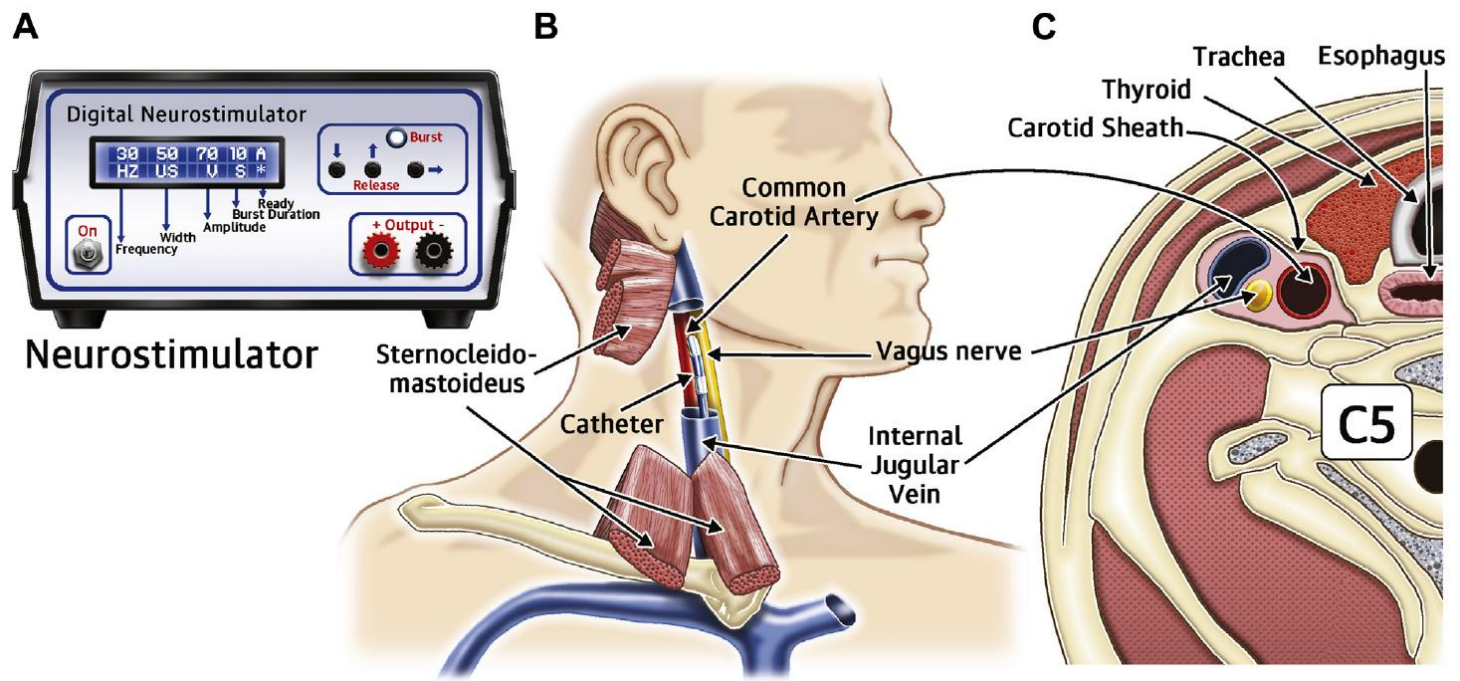

I-LA-GP (202, 0)
1.10
Acquire
CL LAT Bi Imp
N/A N/A N/A N/A
AP PA LAO RAO LL RL INF SUP


I-LA-GP (202, 0)
1.10
Acquire
CL LAT Bi Imp
N/A N/A N/A N/A
AP PA LAO RAO LL RL INF SUP

Simplified Method for Vagal Effect Evaluation in Cardiac Ablation and Electrophysiological Procedures

Jose C. Pachon M., MD, PHD,*†‡ Enrique I. Pachon M., MD,*†‡ Tomas G. Santillana P., MD,‡ Tasso J. Lobo, MD,‡ Carlos T.C. Pachon, MD,‡ Juan C. Pachon M., MD,*†‡ Remy N. Albornoz V., MD,*‡ Juan C. Zerpa A., MD‡



Pachon JC et al. JACC: Clinical Electrophysiology 2015;5:451-60.

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