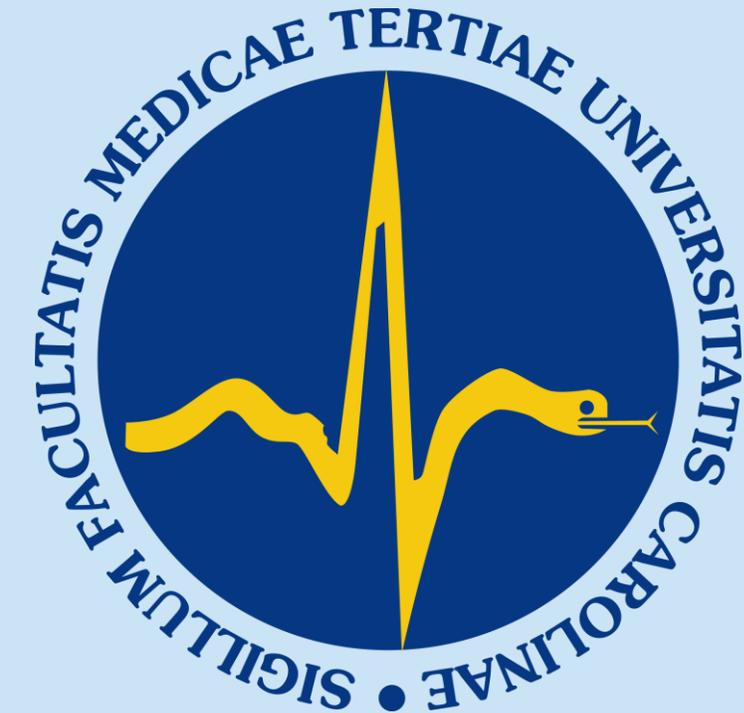


Catheter ablation of patients with non-paroxysmal atrial fibrillation using CARTO Finder software

Sabri Hassouna, Pavel Osmančík, Dalibor Heřman, Lucie Znojilová, Jakub Karch
Department of Cardiology, 3rd Faculty of Medicine, Prague



Introduction

- Catheter ablation (CA) in patients with non-paroxysmal Afib has some major clinical benefit (QoL), but still doesn't give satisfactory results.
- Success rate in CA of patients with non-paroxysmal Afib is worse compared to patients undergoing CA with paroxysmal form of Afib (1.)
- One of the developed methods in AF ablation is the ablation of regions with focal and rotational activities using high density mapping.
- CARTO Finder module highlights the regions of repetitive focal and rotational activities during Afib.

Methods (1)

- Patients with symptomatic non-paroxysmal Afib, who were referred for CA, were included in the study.
- Patients with PVI in the past, heart valve disorders, dysfunction of left ventricle were excluded.
- In every patient, the regions of focal and rotational activities in the left and right (if necessary) atrium were mapped using Pentarey multipolar catheter and CARTO Finder module.

Methods (2)

- The ablation consisted of pulmonary veins isolation, followed by ablation of highlighted regions of focal and rotational activities. (No linear lesions were made).
- Point-by-point PVI (SmartTouch, Biosense-Webster), ablation index 400 anterior, 350 posterior, followed by ablation of focal and rotational activities.
- If Afib persisted or did not organise itself into atrial tachycardia after the ablation, mapping of RA was done, with ablation of focal and rotational activities in RA.
- If Afib still persisted, electrical cardioversion was done.

Methods – Follow up (3)

- Our patients undergo follow up every 3 months (24 h ECG Holter recording and ambulatory check-up).
- Prescription of AAD according to cardiologist during follow up.
- If recurrence of Afib after 3 months, reablation was indicated (PVI control and linear lesions).

2-LA penta fi... (891, 0)

Rotational Focal

Tag.Idx

x

N/A_g

%

x

R

x

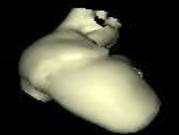
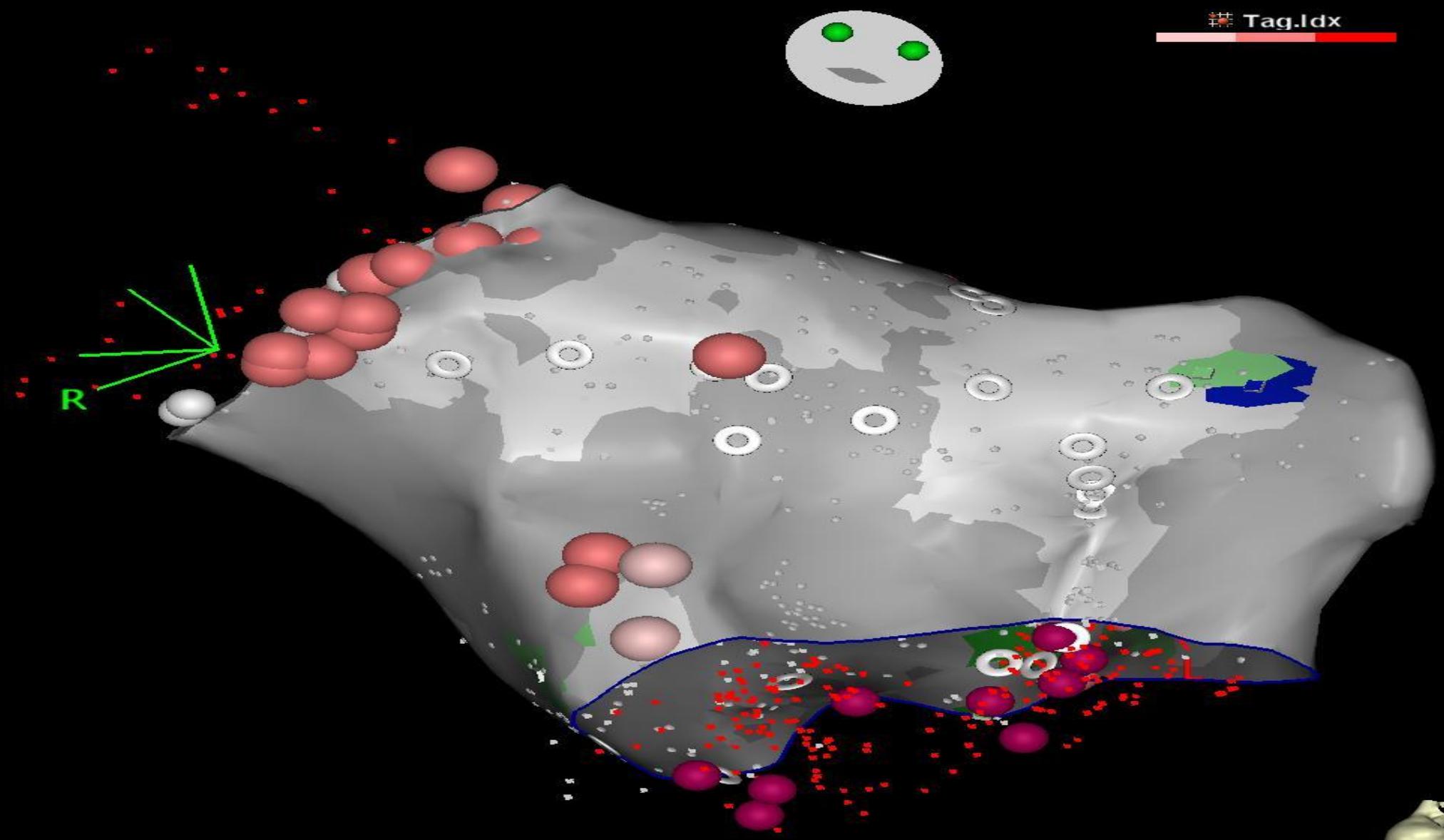
6

x

1.33

0%

AP PA LAO RAO LL RL INF SUP



+

-

+

-

2-LA penta fi... (891, 0)

Rotational Focal

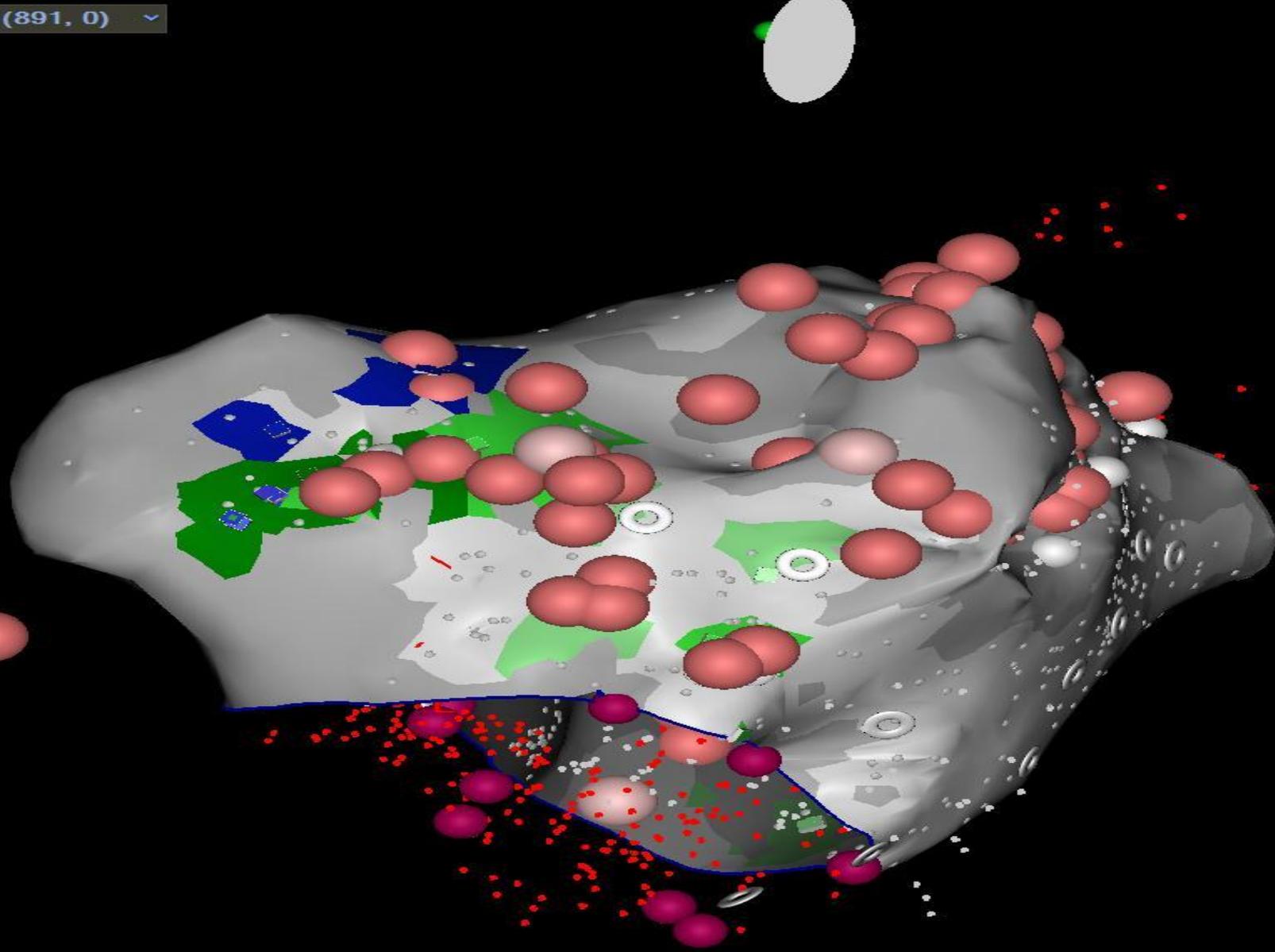
Tag.Idx

×

N/A_g

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×



×

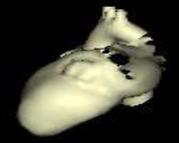
6

×

1.33

0%

AP PA LAO RAO LL RL INF SUP

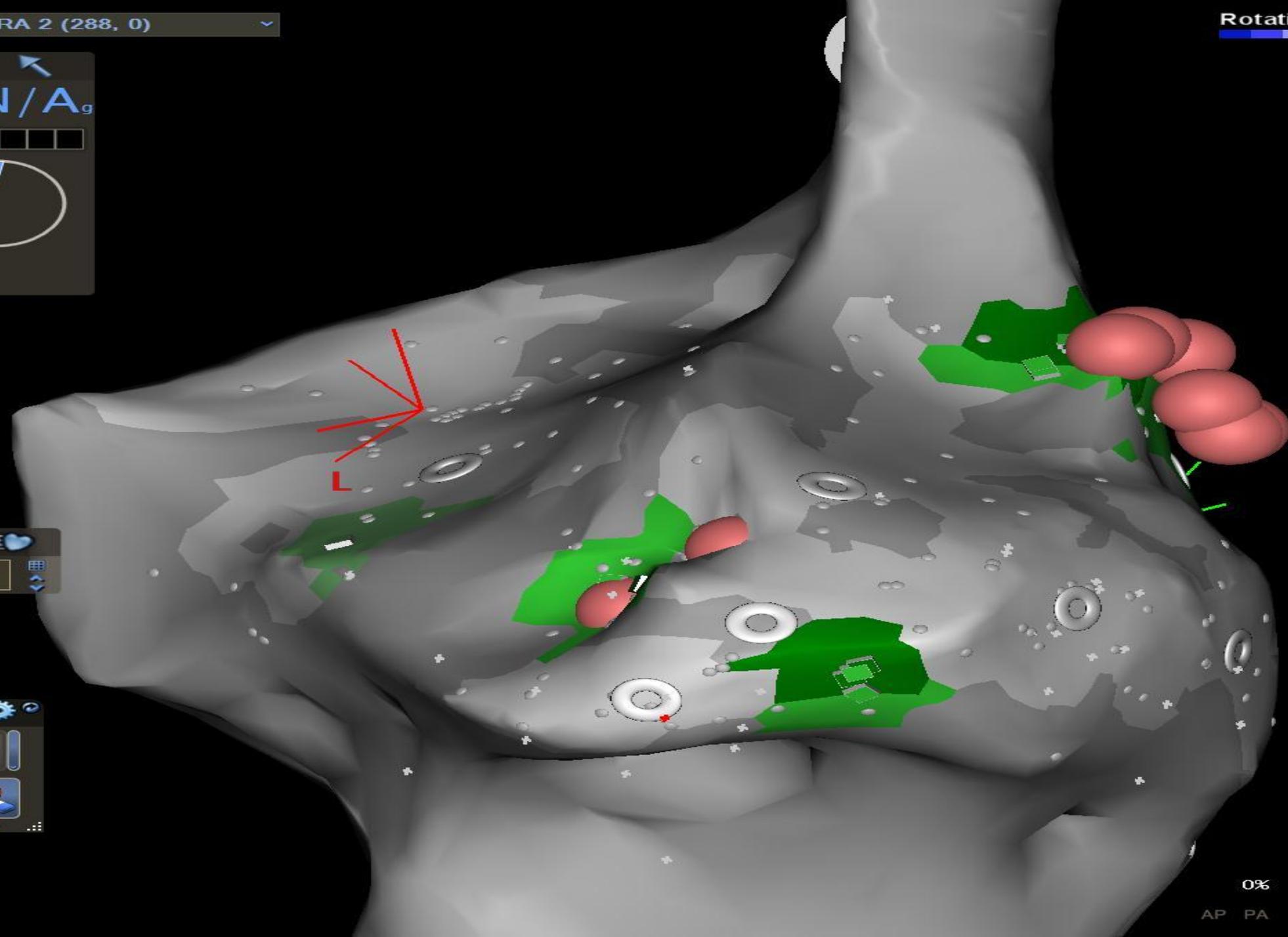


8-RA 2 (288, 0)

Rotational Focal

Navigation controls including a directional arrow, the text **N/A_g**, a percentage input field, and a rotation arc.

Small navigation or display control icons.



Control panel with a blue icon, a grid icon, and the number **6**.

Control panel with a gear icon, a slider, and a red/orange icon.

0.83

Vertical slider control with '+' and '-' buttons.

0% — [slider] — +

AP PA LAO RAO LL RL INF SUP

Results – patient characteristics

Total of patients	13
Sex (men)	8 (61%)
Mean age	63,8_±8,7 let
Average weight	93,2_±17.6 kg
CHA2DS2-VASc	2,67
History of electrical cardioversion	12 (92%)
AAD (number)	1,25

Procedural data

Mean duration of the procedure	217,2\pm39 min
Afib present at the beginning of procedure	13 (100%)
Left atrial volume	186,2 \pm 22,7 ml
Low voltage (more than 1/3 surface of LA)	8 (61%)
PVI	13 (100%)
Cycle length in LAA baseline	167 \pm 12ms
Cycle length in LAA after PVI	173 \pm 17ms
Cycle length after ablation of F+R	180 \pm 20ms
Number of sites with Focal activity in LA	2,3 \pm 1,0
Number of sites with Rotational activity in LA	0,6 \pm 0,7
Duration of F+R ablation in LA	13,722 min
RA map	7 z 13
Number of sites with Focal activity in RA	0,714
Number of sites with Rotational activity in RA	0,142
Duration of F+R ablation in RA	9,75 min

Ablation success – Sinus rhythm maintenance

- Acute termination to SR or organisation to regular AT after CA, occurred in 2 patients (1 termination to SR, 1 organisation to AT). All other patients (11) underwent electrical cardioversion.
- The mean follow-up time was 209,3 + 104,1 days.
- From the longstanding point of view, 10 patients out of 13, who were followed up for more than 3 months (76,9%), maintain SR.
- 6 patients on AAD

Results

- Acute termination into SR or organisation into regular atrial tachycardia is not frequent using Carto finder mapping system.
- But in secondary end-point, there is prolongation of cycle length.
- SR maintenance is promising in the pilot cohort of patients.

Thank You