RHYTHM 2015

Arrhythmias & Heart Failure: New Insights & Technological Advances

Palais du Pharo, Marseille, France May 28-30, 2015

Catheter ablation for Paroxysmal Atrial Fibrillation: The Vietnam Heart Institute Experience

Pham Tran Linh, MD, FAPHRS
Vietnam Heart Institute, Hanoi

Indications for Catheter AF Ablation

- Symptomatic AF refractory or intolerant to at least one Class I or III antiarrhythmic medication
- In rare clinical situations, it may be appropriate as first-line therapy
- Selected symptomatic patients with heart failure and/or reduced ejection fraction
- Presence of a left atrial thrombus is contraindication to catheter ablation of AF

Calkins et al. *Heart Rhythm.* 2007;4:1-46.

Patient Selection for Ablation

50 pts with symptomatic ***PaAF*** referred to us between Oct ‘09 and September ’13.

Inclusion criteria

- At least ***ONE WEEKLY*** episode of PaAF.
- At least ***Two*** or ***More AADs unable*** to control symptoms

Exclusion criteria

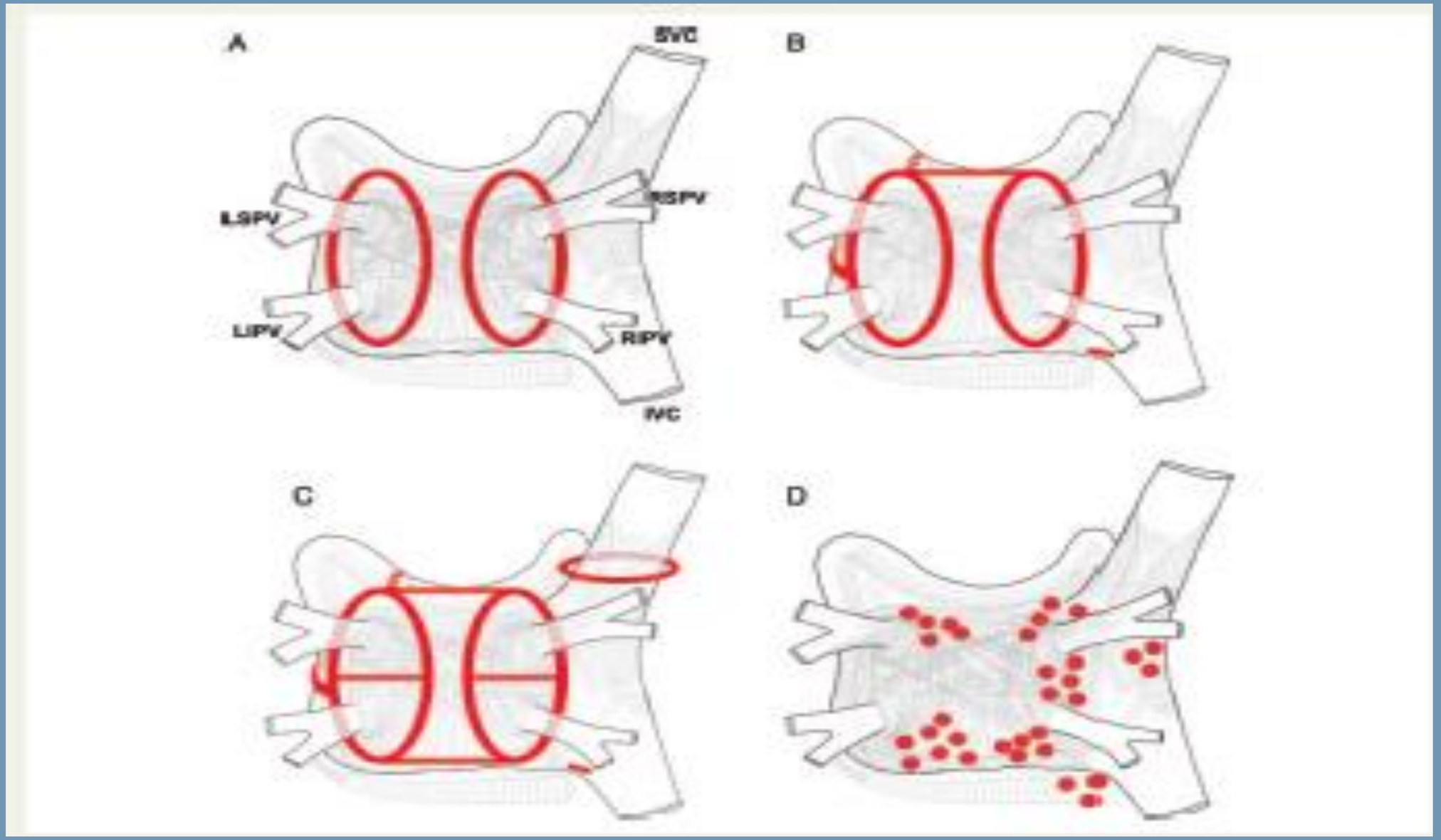
- Age ***>75 yrs***
- Congestive ***HF***
- ***NYHA*** class ***III*** or ***IV***
- ***LVEF ≤35%***
- ***LA*** diameter ***≥ 50 mm***
- ***CARDIAC THROMBUS***
- Life expectancy ***<1 yr***
- ***CCH*** surgery ***< 3 mo*** or ***PROSTHETIC valves***

Ablation Techniques

- Ablation strategies that target PVs and/or PV antrum are cornerstones for most AF ablation procedures
- If PVs are targeted, complete electrical isolation should be goal
- For surgical PV isolation, entrance and/or exit block should be demonstrated
- Careful identification of PV ostia is mandatory to avoid ablation within PVs
- If focal trigger is identified outside PV at time of AF ablation procedure, it should be targeted if possible

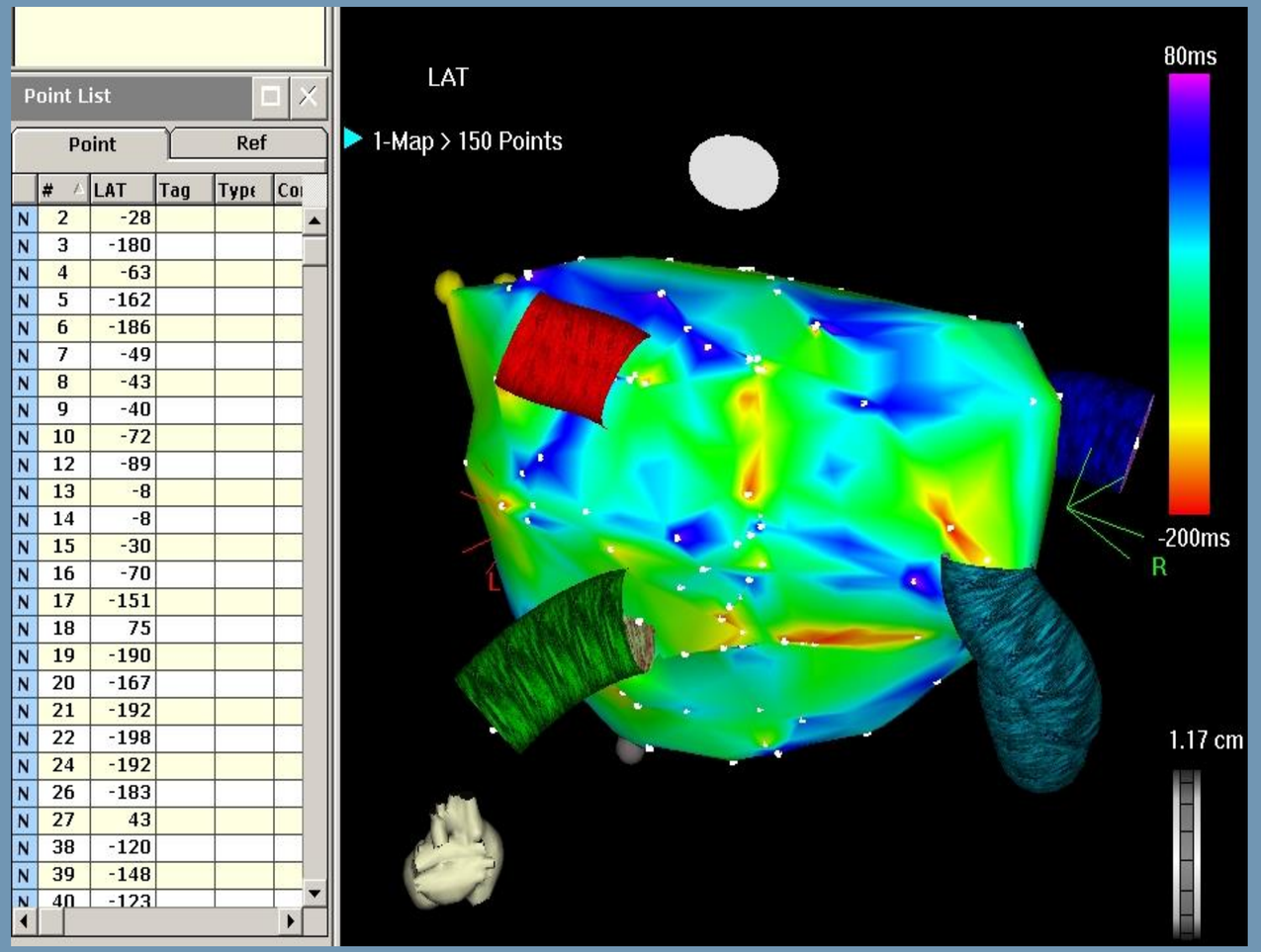
Calkins et al. *Heart Rhythm.* 2007;4:1-46.

AFIB Ablation Strategy



Electroanatomic mapping

- 4-mm irregated tip quadripolar catheter
- Contact mapping of LA and PVs
- EAM and MSCT displayed next to each other



AF ablation procedure

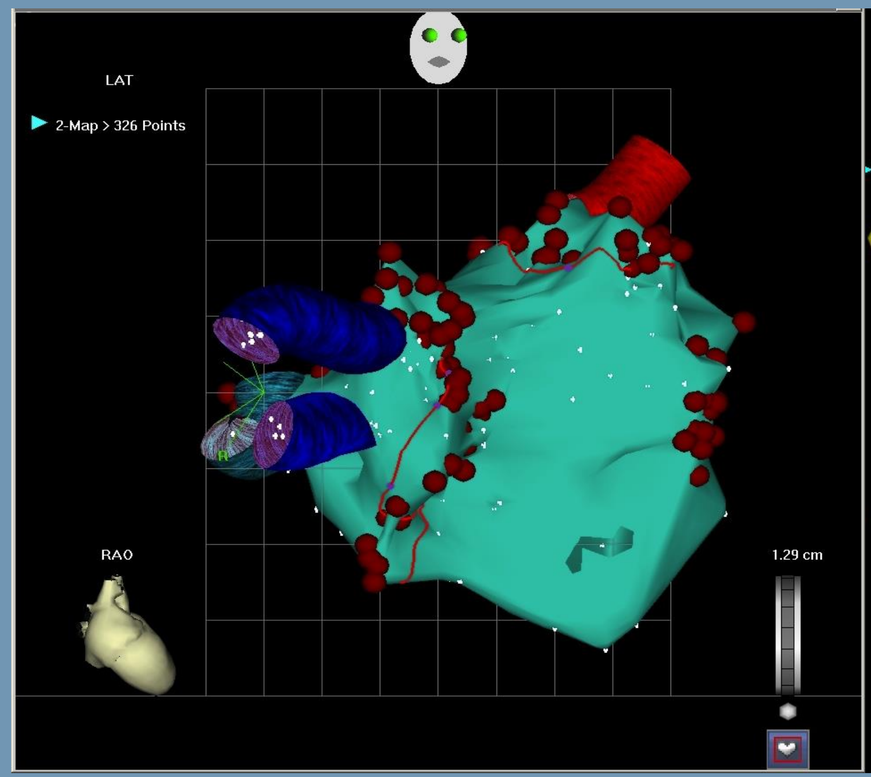
- Circumferential approach

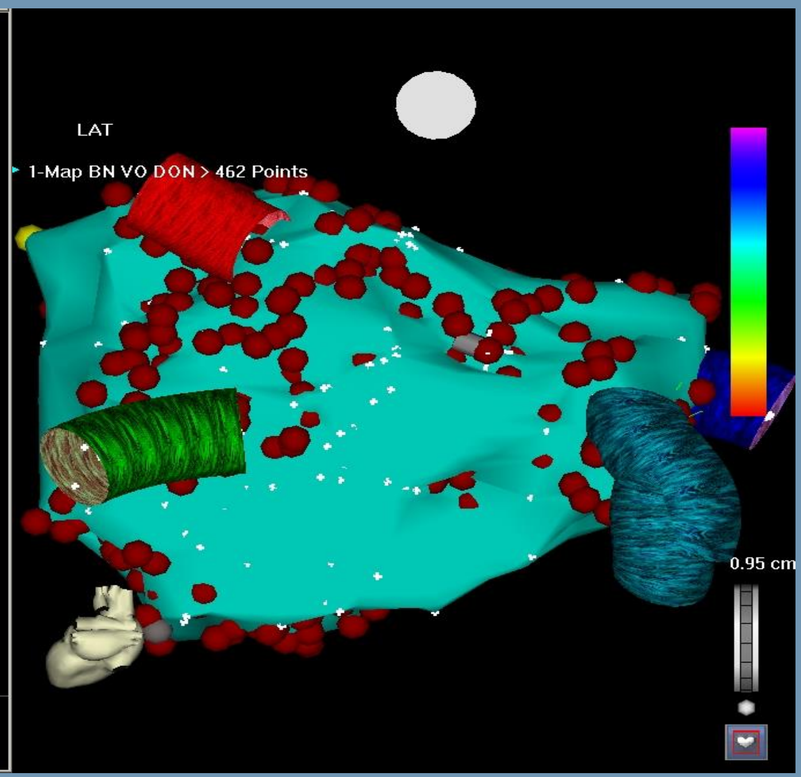
(Pappone C et al., Circulation 2000;102(21):2562-4)

- PV-Isolation

(Haissaguerre M et al., N Engl J Med 1998;339:659–65)

- Additional lines





Postablation Management

- VKA / NOAC for all patients for ≥2 months
- Use of VKA / NOAC >2 months following ablation based on patient's risk factors for stroke and not presence or type of AF
- Discontinuation of VKA / NOAC therapy postablation generally not recommended for CHADS2 score ≥2

RHYTHM 2015

Outcome

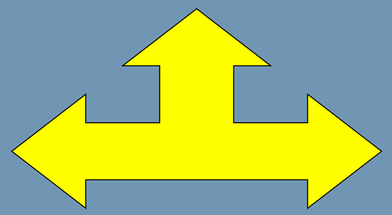
Characteristic

AFIB	Total
Patients (n)	50
Age (y)	55,7 ± 13,4
Sex (M/F)	39 / 11
Duration (y)	4,5 ± 2,7
EHRA score	3,19 ± 0,45
LVEF (%)	65,7 ± 7,7
LA diameter (mm)	37,2 ± 3,7
Hypertension (n)	32

Result

Procedure (min):	**288,8 ± 60,4**
Fluoroscopy (min):	**64,5 ± 20,4**
Mapping (min):	**40,9 ± 12,2**
Time of RF (s):	**3,476 ± 852**

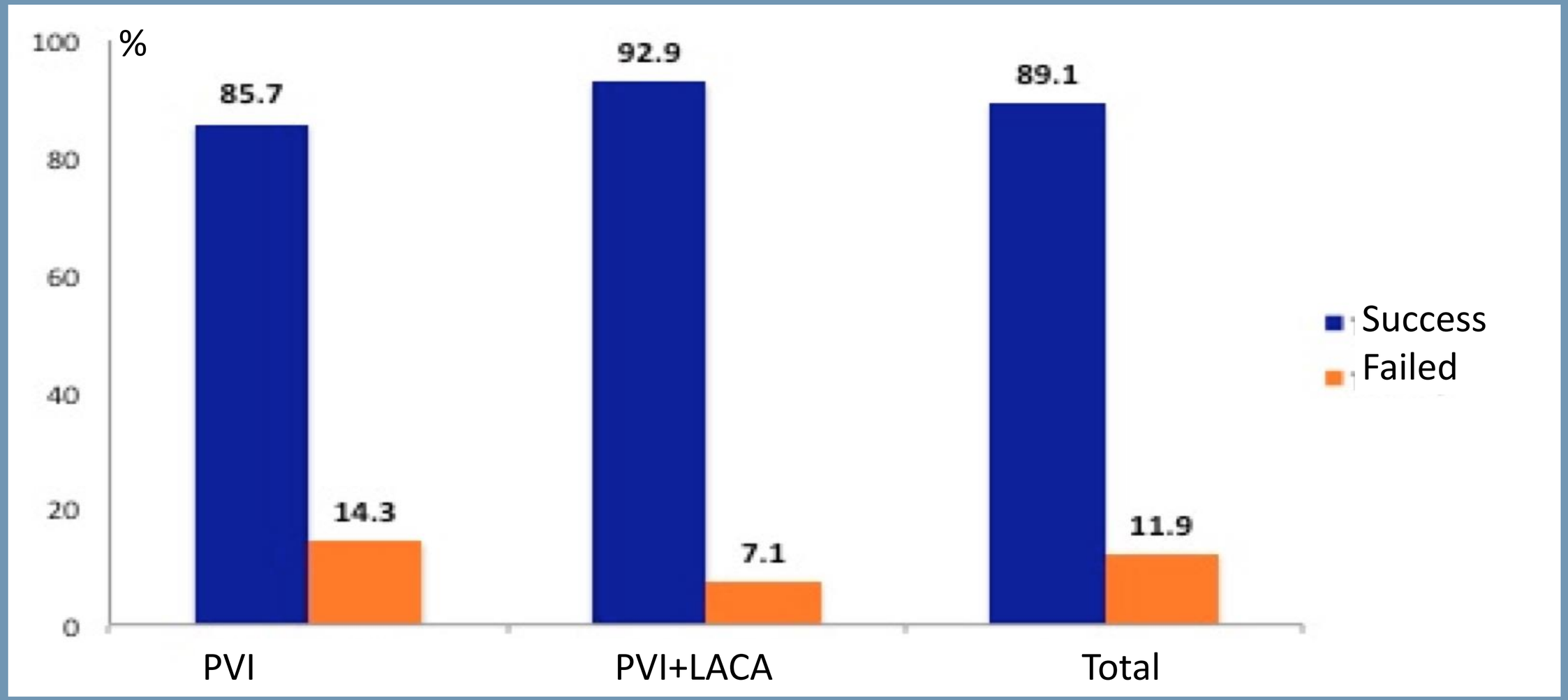
Acute complete Block VP (81,7%)



Incomplete Block VP (18,3%)

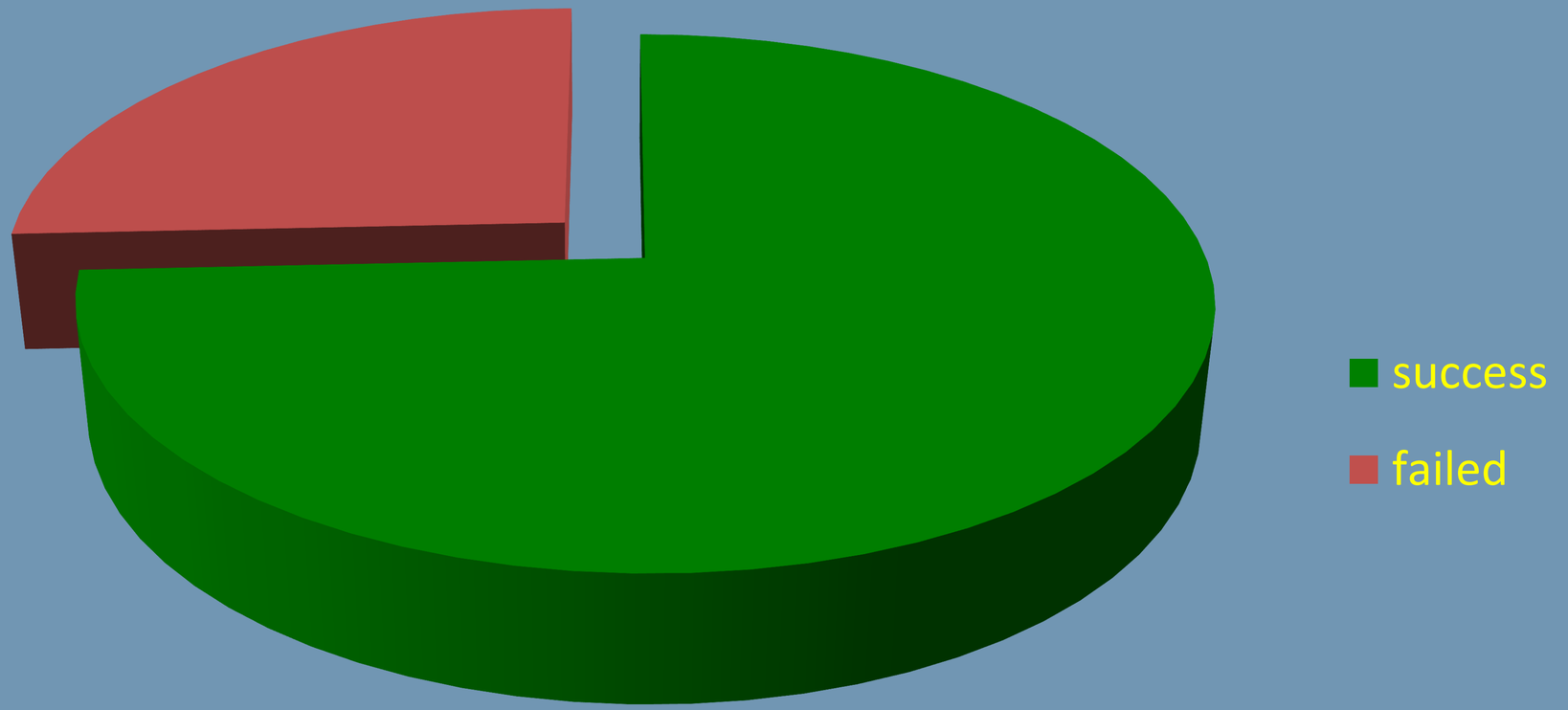
Follow-up after catheter ablation for AF

Successful after AFIB ablation procedure



Our Results – Outcome after 12 months

First 50 pts., Overall success: 74,3 %



Conclusion

- Ablation is an important option in SR maintenance
- Appropriate patient categorization is critical for management
- AF-Ablation therapy is safe in experienced hands.

Thank you !