

# Electrograms of a localized source perpetuating Atrial Fibrillation;

# **Example of dynamic changes in electrograms during AF revolutions**

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### Disclosures

Speaker fees and honoraria as a consultant (minors) from Biosense Webster, St Jude Medical, Medtronic, Boerhinger Ingelheim.



## Case presentation

 A 41-year-old man with symptomatic drugrefractory paroxysmal AF

 referred for a new catheter ablation procedure 6 months after a first one because of AF recurrences.

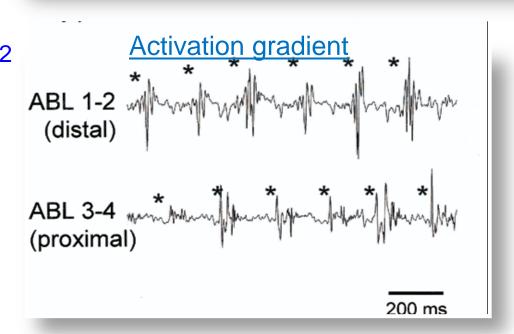
Previous ablation : circumferential PVI



## Ablation procedure strategy

- AF induced at the begining
- EGM-based substrate Ablation
  - primary targeted EGMs:



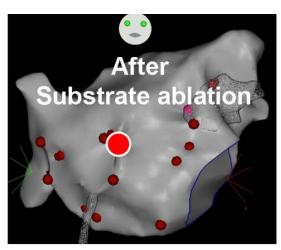


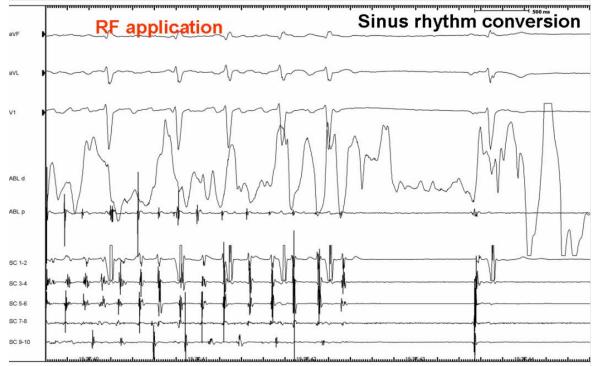
1. Nademanee et al. JACC 2004

1&2. Takahashi et al. JACC 2008

#### CRUCIAL POINT = AF TERMINATION

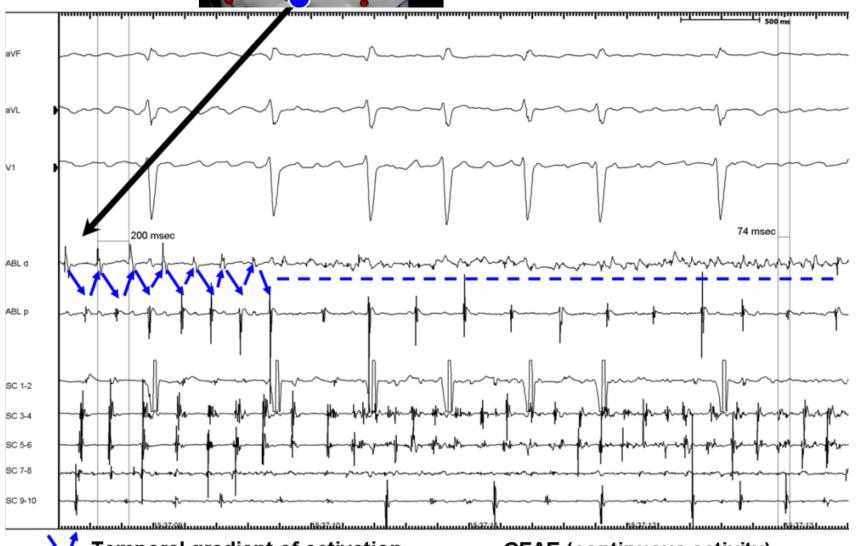
- Point by point RF applications (15-45Wtt)
- Crucial area: anterior LA wall











Temporal gradient of activation

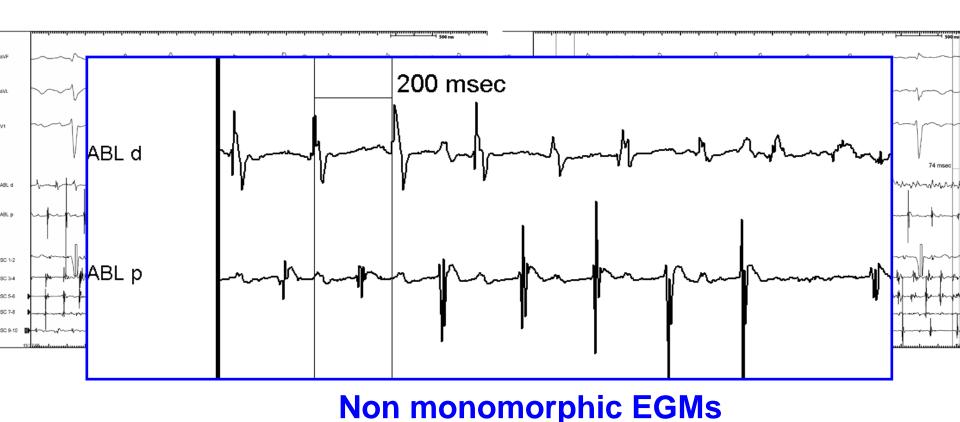
– CFAE (continuous activity)



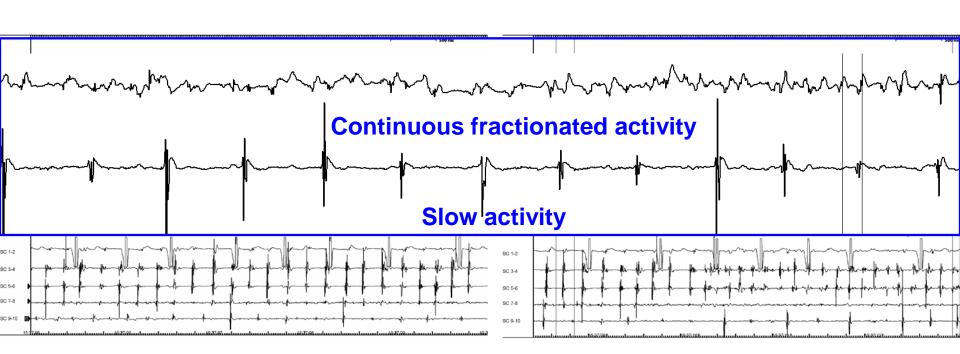
## What is our interpretation of these EGMs?



### Micro Re-entry or a conduction block?





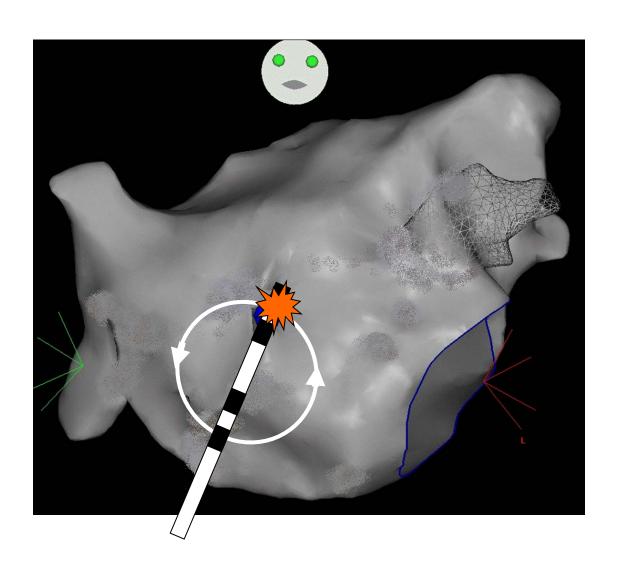




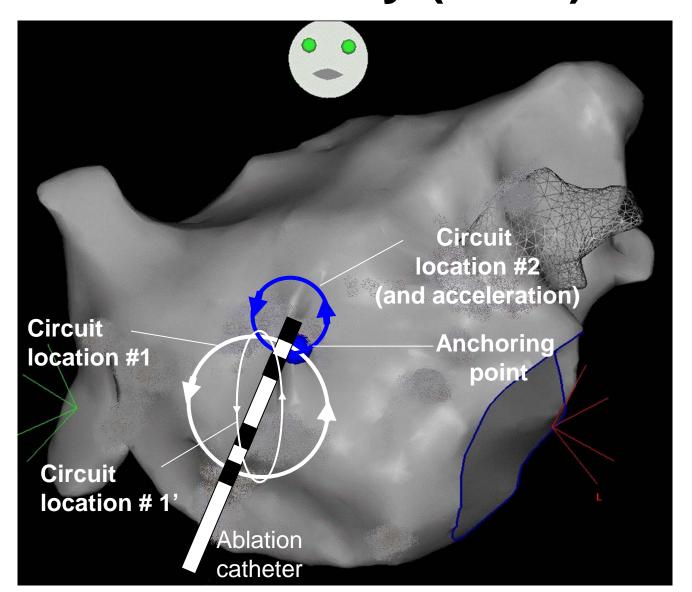




### Micro re-entry + Focal Rapid Activity?



# Drifting and acceleration of and anchored re-entry (rotor)?



### Conclusion

- Good example of AF substrate outside the PV region in a paroxysmal AF
- We showed the EGMs of a crucial area involved in AF perpetuation
- We believe that these EGMs correspond to a 3D drifting & accelerating microrentry otherwise known as a ROTOR.

