Endo-epicardial ablation of ventricular tachycardia in a patient with idiopathic dilated cardiomyopathy

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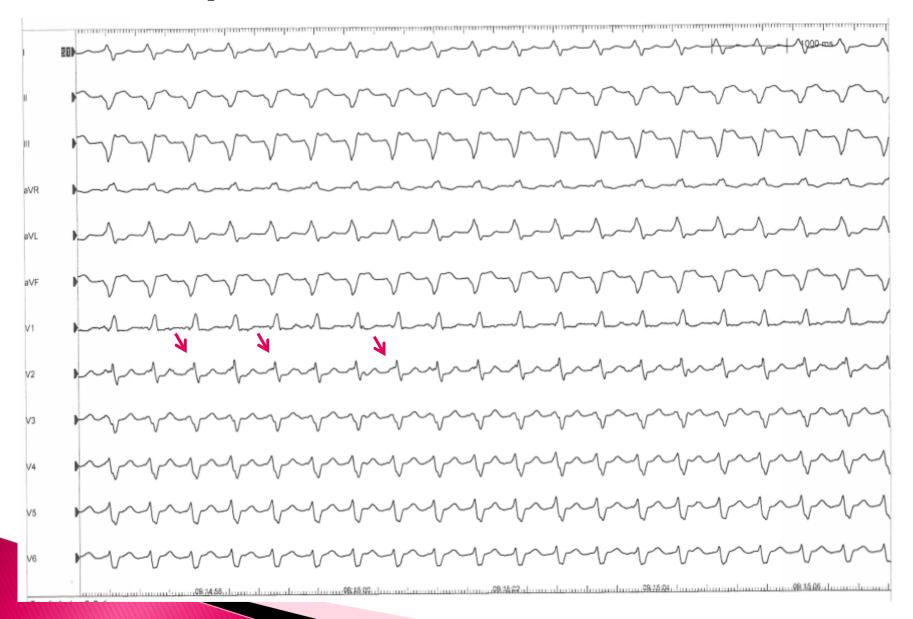
Introduction

- RF ablation of VT : Challenging task
- One possible limitation of endocardial ablation :
 Re-entrant epicardial/ intra-myocardial circuits
- Endo/Epicardial ablation

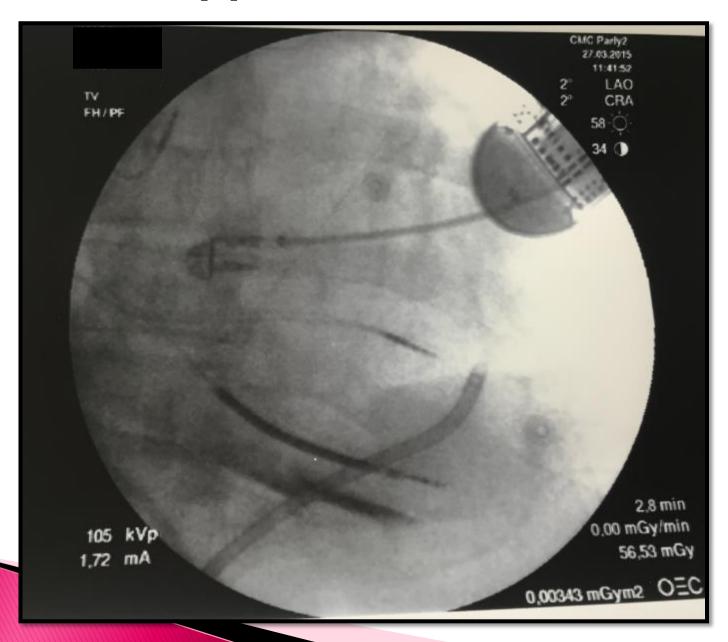
- A 63-year old male patient
- Family medical history of ventricular arrhythmias
- Idiopathic dilated cardiomyopathy with low EF
- VF 8 years ago: Biventricular defibrillator
- Idiopathic high atrio-ventricular block

- Electrical storm : VT with RBBB morphology
- Endocardial ablation of postero-lateral wall of the LV

Few days later, he was admitted in our center ...

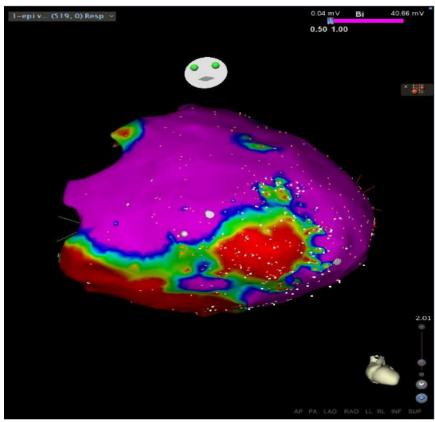


Pericardial approach

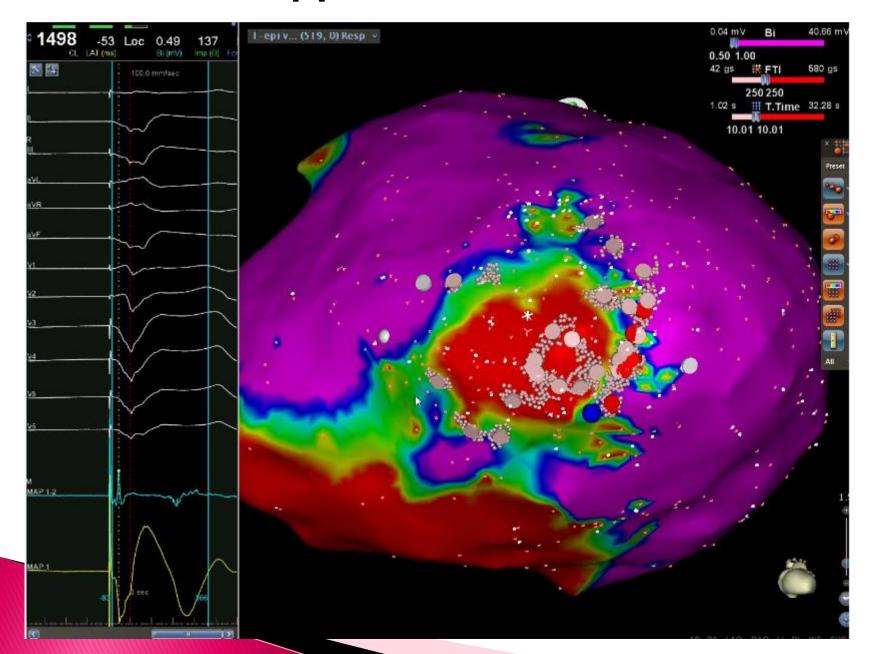


RV epicardial mapping

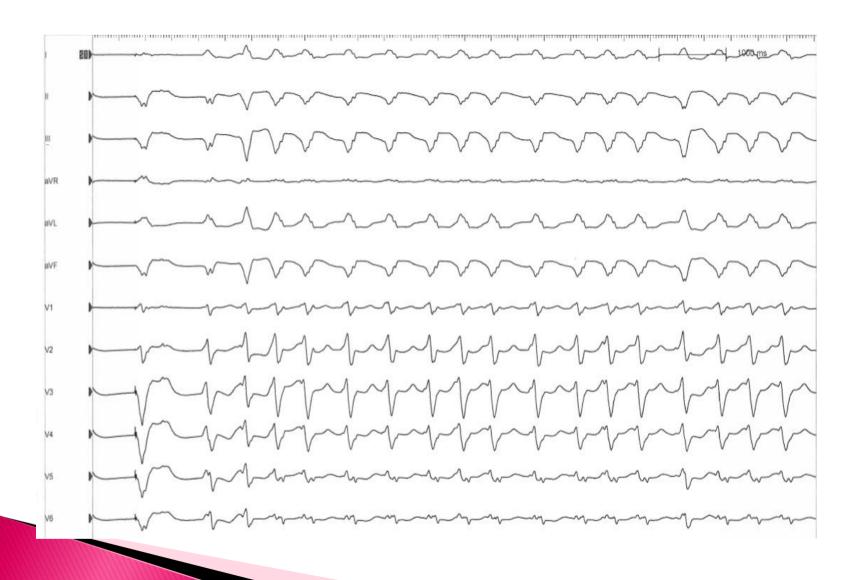




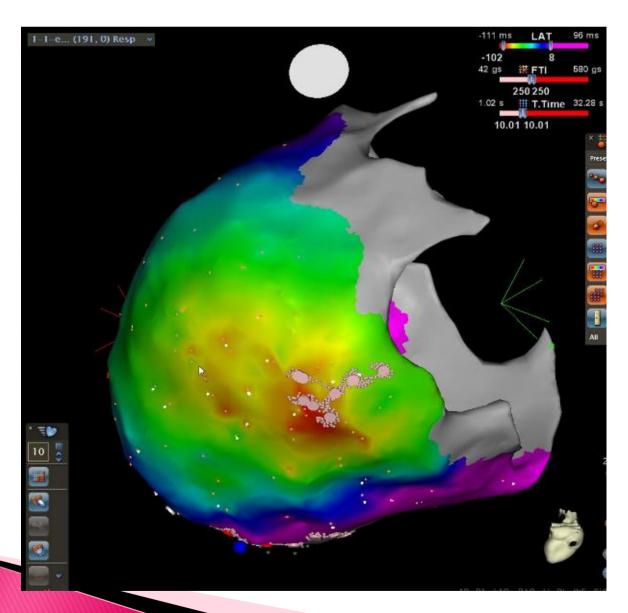
RV substrate-approach ablation



Ventricular pacing ...

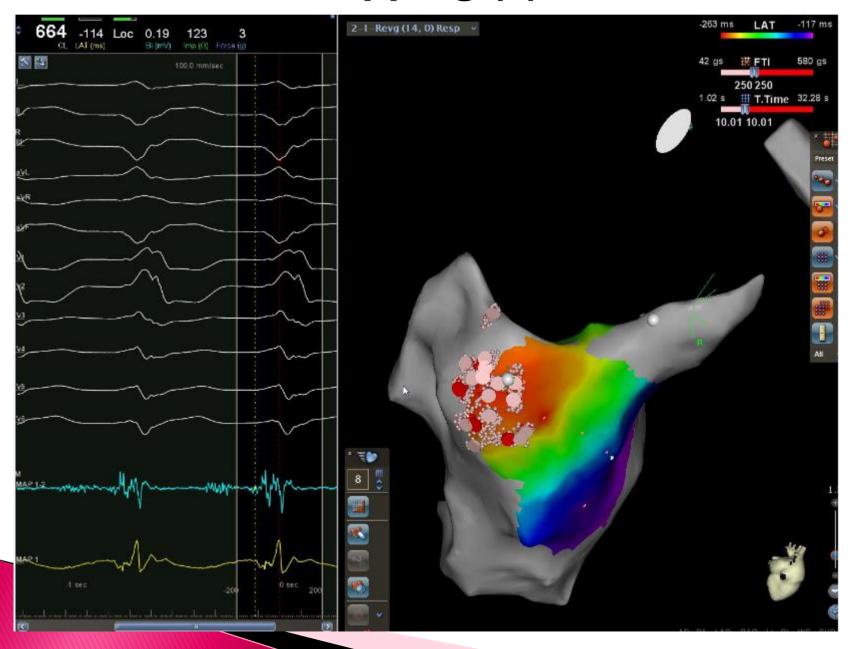


LV epicardial mapping (1)

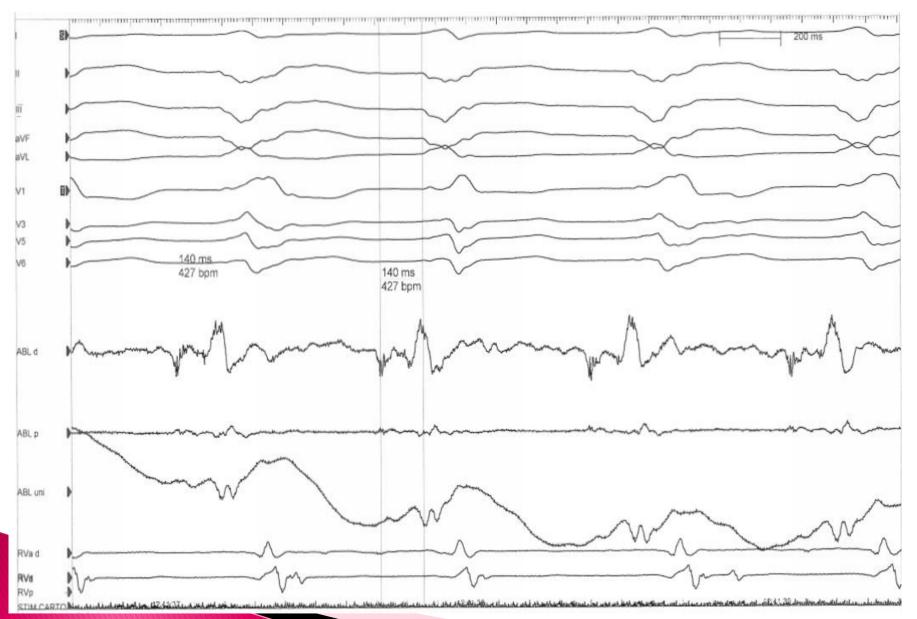


BUT...

LV endocardial mapping (1)



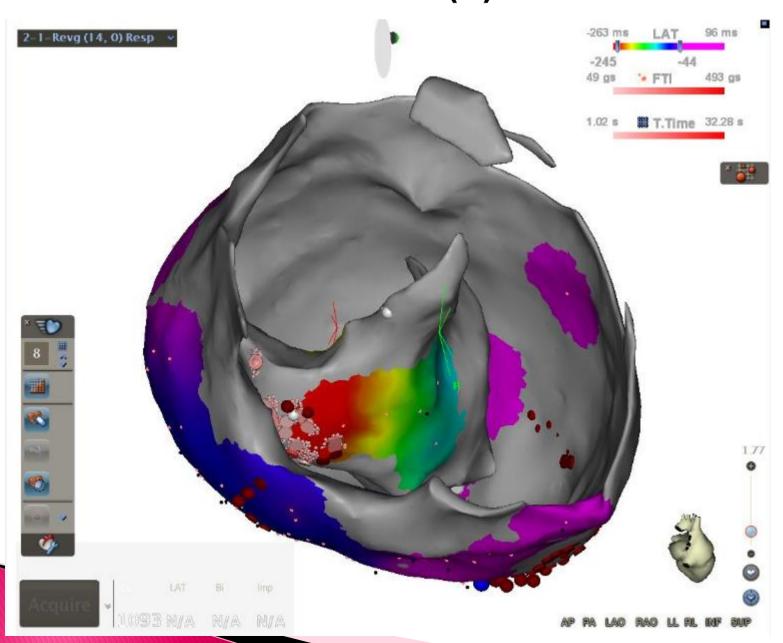
LV endocardial mapping (1)



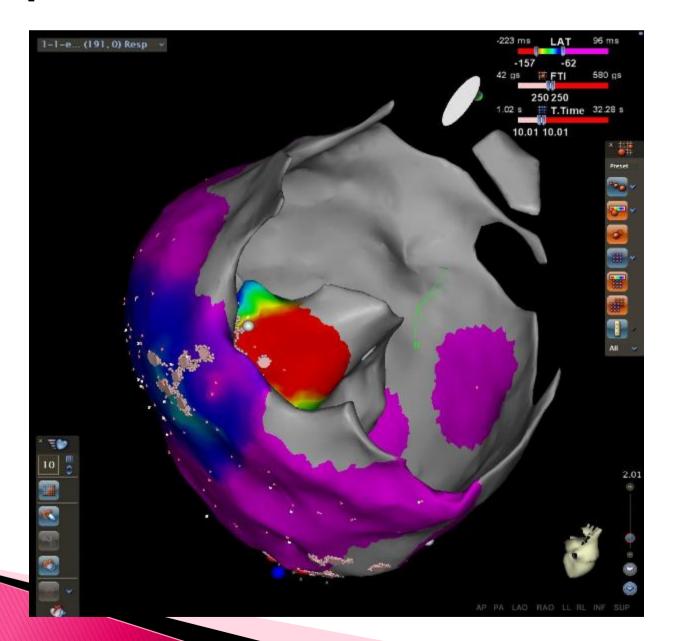
LV endocardial mapping (1)



LV endocardial ablation (1)



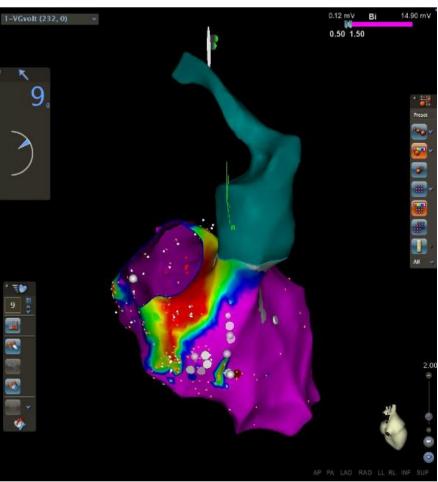
Endo-epicardial localization of VT



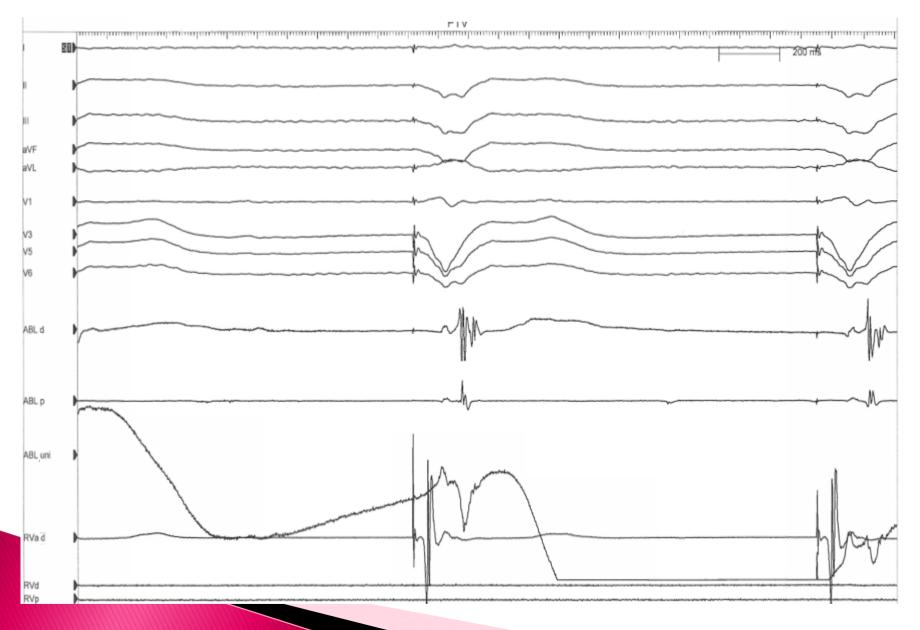
- 5 days Later
- Recurrence of the first clinical VT

LV endocardial mapping (2)

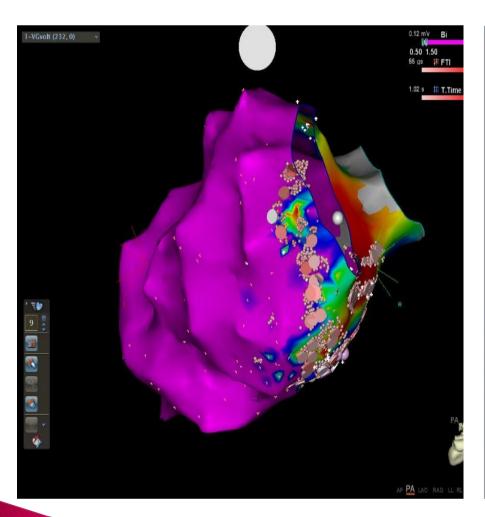


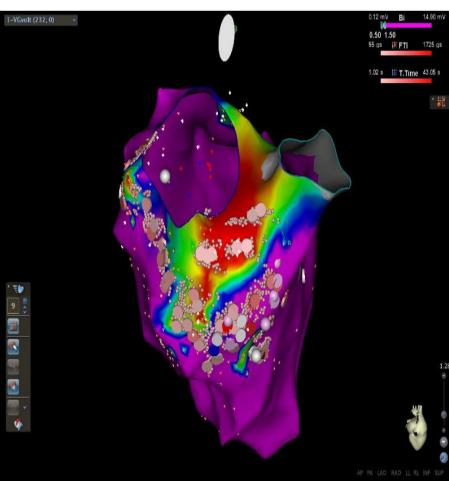


LV endocardial mapping (2)



LV endocardial ablation (2)





Conclusion (1)

- Epicardial ablation of VT : High-volume centers
- Technical considerations :
 - Pericardial access: difficult, Previous cardiac surgery, pericardial adhesions...
 - Complications: Hemopericardium, Coronary artery damage, phrenic nerve injury, pericarditis

Conclusion (2)

- ▶ VT ablation success rates : 53 67 %
- Epicardial VT ablation :
 - Essential technique for VT ablation
 - Non ischemic dilated cardiomyopathy +++
- First line approach :
 - Experience of the electrophysiologist

ECG: Epicardial VT



Thank you for your Attention