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Country: **France**

Titel of the project: **QUANTIFICATION OF THE ENDOTHELIAL  
THROMBOGENICITY IN PATIENTS WITH ATRIAL  
FIBRILLATION**

### Project details

#### **elodie morel**

Hospices Civils de Lyon

Award amount: €100,000

Serum levels of VEGF and/or FvW could offer new tools to better stratify the thrombotic risk of patients with FA. Blood cultures made in various sites during electrophysiology procedure will help to better understand the AVC risk related to FA for a better prevention.

Main objective Highlight a pro-thrombotic state eventually indicating an AVC risk in patients with FA. Secondary objectives- Determine the site of malfunctioning of the production of thrombogenic factors -explain the similar risk of AVC of patients with paroxysmic FA and patients with persistent and/or permanent FA -identify new risk factors for a better stratification of the thrombotic risk of patients with FA Evaluation criteria The existence of a concentration difference of 2 biologic markers of the thrombogenesis (the VEGF and Willebrand factor, FvW) between peripheral venous blood and the blood taken at the level of coronary sinus and the left atrium and also a possible concentration difference for these markers between patients in paroxysmic FA and these in persistent and/or permanent FA will be statistically examined. An important difference between various sites will help defining the site malfunctioning of the production of thrombogenic factors and will help explain the similar risk of AVC of patients with different types of FA. Patients will be followed up for cardiovascular accidents. The occurrence of events will be correlated with levels of given proteins in the peripheral blood to determine the value of these markers in the stratification of thrombotic risk and the recurrence. Experimental design Comparative control case will be carried out between patients with and without FA during 2 years in the cardiologic hospital of Lyon. The design involve a total of 100 patients : Concerned people :Hospital patients with and without FA for a planned intervention of an electrophysiologic exploration or ablation. Compared groups:•Group A: 50 patients with FA•Group B: 50 patients with FA (control group) Organisation The study will be proposed to planned patients for an electrophysiologic exploration or an ablation. After checking of inclusion criteria, the signature of a consent will be required fro them. All blood cultures will be done through the exploration cannula. For each sampling site, a EDTA 7ml tube will be sampled. For the peripheral sample, blood will be sampled at the introduction of the cannula in the vein. Then, samples at the level of the heart, namely the coronary sinus and left atrium will be done as exploration goes along. No additional activity concerning the usual procedure will be done. Patients will be followed at the investigation centre every 6 months during a year. During this visit, all heart and vascular events will be recorded. Two blood samples (EDTA tube and dry tube) will be taken for biological dosage and the follow up of the development of examined markers concentration. Methods of analysis Dosages and thrombotic markers will be done in the blood from each sampling site (peripheral venous blood, left atrial, coronary sinus). These dosages will be done by ELISA technique. First, proportioned proteins are VEGF (R&D System) and Willebrand factor (Diagnostica Stago SAS). Further analyses of other molecules could be undertaken later on.

## **Audience**

### **Type**

- AF Patients

### **Location**

France, Europe