Giant Left Atrial Thrombus during Catheter Ablation: One way to deal with

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Introduction: Left Atrial Thrombus is a common finding in patients with Atrial Fibrillation (AFib). Likewise, catheter ablation in AFib have to face the risk of thrombus formation even during procedure. Some conflicting data exist whether oral anticoagulation should be resumed during catheter ablation.

Methods: Case report: We herein report a case of an adult with symptomatic Paroxysmal Atrial Fibrillation who underwent catheter ablation procedure. The patient had warfarin as her oral anticoagulation drugs with unstable INR levels. She had transesophageal echo (TEE) one day prior to catheter ablation procedure without evidence of any left atrial thrombus. Pre-procedural TEE protocol required her to stop anticoagulation medicine 3 days before, so she did not take any antithrombotic drugs 4 days before catheter ablation. Soon after trans-septal puncture and catheter insertion to left atrium, a giant thrombus was noticed dangling around one of the catheters. Afterwards, two carotid artery filters were deployed in order to prevent distal embolization. Thrombo-suction procedure was done using 8F long sheath catheter under fluoroscopic and transesophageal echo guide. Big thrombus was removed safely. During hospitalization, signs and symptoms related to distal embolization did not occur.

Result: Discussion: The reason for the thrombus formation was likely due to the lack of anticoagulation that the patient had during procedure. Warfarin discontinuation before invasive procedure was a common practice. However, some papers said that warfarin should be maintained throughout procedure without significant risk for major bleeding. Thus, maintaining warfarin with optimal INR levels should be done in this case. In dealing with intra-atrial thrombus during procedure, there were no standard procedures exist. Some case reports mentioned about the usage of intracardiac echocardiography to guide the thrombosisuction, and the other method is using intra-atrial thrombolysis using alteplase. We demonstrated one of the options that could be used if this problem ever occurred.

Conclusion: Keeping a good anticoagulation level within therapeutic targets for patient undergoing catheter ablation is mandatory. Thrombosisuction using long sheath with cerebral protection device could offer an alternative way to deal with intracardiac thrombus during catheter ablation.