

Left Atrial Thrombosis Despite Dabigatran Therapy

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Abstract

Dabigatran is a novel anticoagulation which has been approved as an alternative to warfarin therapy for non-valvular atrial fibrillation. Use of Dabigatran for approved indications as well as off label use has dramatically increased after Federal Drug Administration (FDA) approval. Our patient had left atrial thrombosis even after being on Dabigatran for more than one month which raises question about safety and efficacy of use of dabigatran around cardioversion and ablation..

Introduction

Dabigatran is an oral thrombin inhibitor increasingly utilized in place of warfarin for prevention of stroke in patients with non-valvular atrial fibrillation as it does not require coagulation test monitoring.

Case Report

A 69 year old male patient with aortic valve replacement (23-mm Edwards Lifesciences pericardial tissue valve), mitral valve repair (Edwards Lifesciences annuloplasty ring size 28), and bi-atrial Cryo Maze procedure (November 2010) presented to out-patient clinic with paroxysmal atrial fibrillation. Patient continued to have symptomatic paroxysmal atrial fibrillation despite amiodarone and underwent cardioversion which failed to maintain sinus rhythm. Due to frequent travel relating to his job, he was switched to dabigatran 150 mg twice daily from warfarin. Radiofrequency ablation was planned due to symptomatic recurrence despite tolerated antiarrhythmic therapy.

A Computed tomography of the chest was performed as part of pre-operative evaluation of atrial fibrillation ablation after a month on dabigatran. This showed 12 mm thrombus attached to left atrial wall which was partially incorporated (Figure). Planned ablation procedure was postponed and warfarin reinitiated in place of dabigatran.

Key Words:

Dabigatran, left atrial thrombosis, Atrial fibrillation

Disclosures:

None.

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Discussion

Re-ly trial,¹ which led to FDA approval of dabigatran showed 150 mg twice daily of dabigatran was associated with lower rates of stroke and intracranial bleeding as compared to warfarin. After publication of this study and approval from FDA, use of dabigatran for approved indication as well as off label use has increased dramatically.² Dabigatran has been used and tried as anticoagulant before cardioversion.³ A recent study evaluated safety of dabigatran in radiofrequency ablation of atrial fibrillation and found higher incidence of bleeding as well as thromboembolic complications.⁴ However, safety and efficacy of use of dabigatran around cardioversion and ablation seems to be far from settled as demonstrated by this case.

Conclusions:

Until further prospective data are available, the patients on dabigatran therapy for atrial fibrillation prior to cardioversion should undergo TEE to rule out thrombus.

References:

1. Connolly SJ, Ezekowitz MD, Yusuf S, et al. Dabigatran versus warfarin in patients with atrial fibrillation. *N Engl J Med* 2009;361:1139-1151
2. Kirley Kate, Qato DM, Kornfield R, et al. National Trends in Oral Anticoagulant Use in the United States, 2007 to 2011. *Circ Cardiovasc Qual Outcomes*. 2012 Sep 1;5(5):615-21
3. Nagarakanti, R, Ezekowitz MD, Oldgren J, et al. Dabigatran versus Warfarin With Atrial fibrillation. An Analysis of Patients Undergoing Cardioversion. *Circulation*. 2011; 123:131-136
4. Lakkireddy D, Reddy MY, Biase LD et al. Feasibility and Safety of Dabigatran Versus Warfarin for Periprocedural Anticoagulation in Patients Undergoing Radiofrequency Ablation for Atrial Fibrillation. *J Am Coll Cardiol*. 2012;59(13):1168-1174

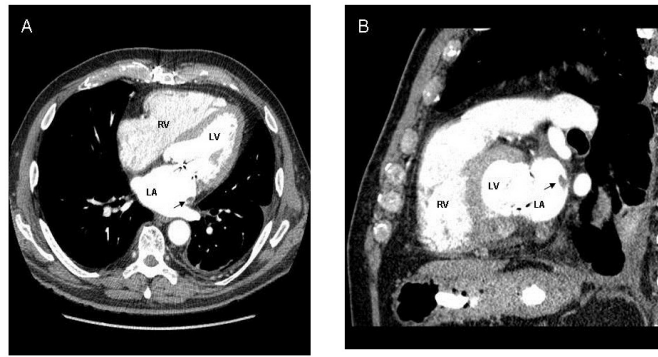


Figure : 1 Computed tomogram with contrast of heart and pulmonary veins. Panel A is axial view and Panel B is sagittal view. The arrow is pointing to the left atrial thrombus which has partially incorporated to left atrial wall