

Left atrial thrombus in a patient with left atrial appendage ligation

Andrew H Lin,¹ Luke S Oakley,² David J Krause,¹ Gregory M Francisco¹

¹Department of Cardiology, Naval Medical Center San Diego, San Diego, California, USA

²Department of Internal Medicine, Naval Medical Center San Diego, San Diego, California, USA

Correspondence to
Dr Andrew H Lin,
alin_1974@yahoo.com

DESCRIPTION

A 75-year-old woman who had a bioprosthetic mitral valve replacement and complete left atrial appendage (LAA) ligation a year ago was found to be in atrial flutter at routine clinical follow-up. She was started on warfarin and brought back for a transoesophageal echocardiogram (TOE)-guided cardioversion. On the TOE, a left atrial thrombus overlying the ligated LAA was discovered (figure 1). The patient was asymptomatic, and since she had a CHADS score of 2, we continued her on warfarin indefinitely. She was set-up for a repeat TOE and cardioversion 1 month later. During this TOE, she demonstrated resolution of the thrombus (figure 2) and subsequent successful cardioversion. A couple of months later, she had a successful atrial flutter ablation procedure performed.

The LAA is a common site for thrombus formation and thus the origin of many cardioembolic events. Ligation of the LAA during valvular surgery is often performed with the intent of minimising the risk of thrombus formation. However, patients remain at risk for thromboembolic events even after LAA ligation.¹ Prior reports have documented

thrombi formation after disruption of the suture line.^{2,3} Here, we extend these findings and demonstrate that left atrial thrombus formation is still possible despite a complete and intact left atrial appendage ligation.

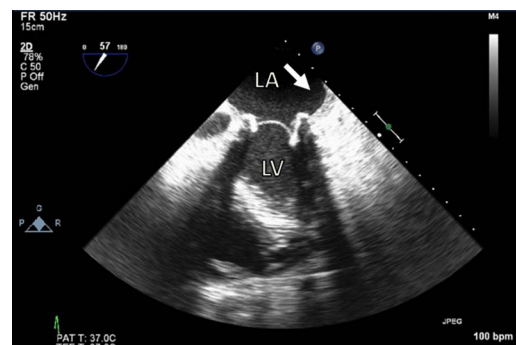


Figure 2 Trans-oesophageal echocardiogram. A mid-oesophageal two chamber view after 1 month of anticoagulation demonstrating resolution of the left atrial thrombus. Note the complete left atrial appendage ligation (arrow). LA, left atrium; LV, left ventricle.

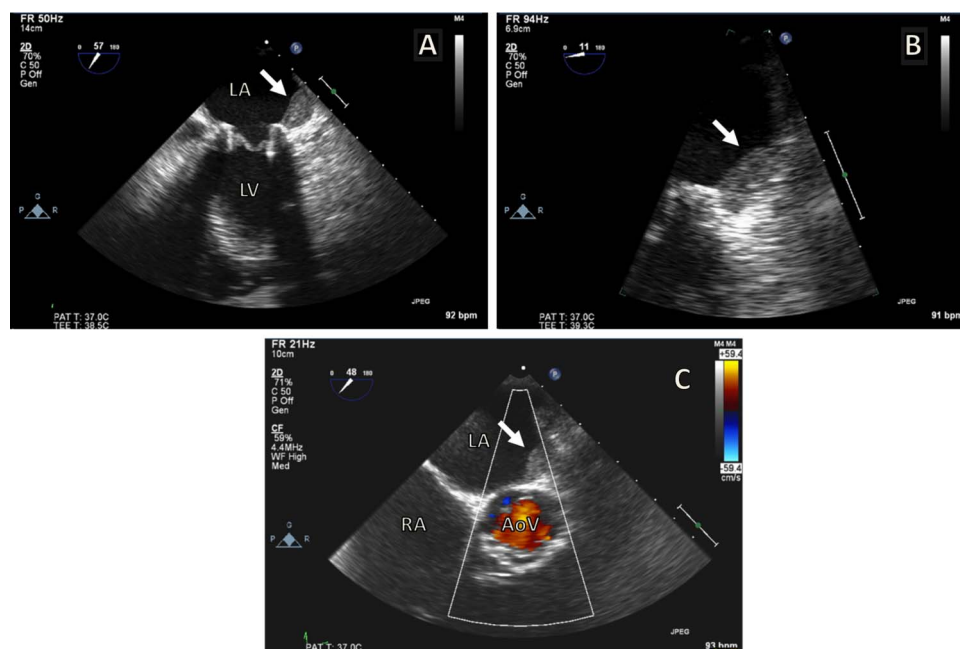


Figure 1 Transoesophageal echocardiogram. A mid-oesophageal two chamber image (A) and enlarged view (B) of the bioprosthetic mitral valve and a completely ligated left atrial appendage with an overlying atrial thrombus (arrow). (C) A mid-oesophageal short-axis view showing the thrombus in the left atrium. AoV, aortic valve; RA, right atrium; LA, left atrium; LV, left ventricle.

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Learning points

- ▶ Left atrial appendage ligation does not eliminate the risk of thromboembolic events.
- ▶ Transoesophageal echocardiograms are still required in patients with left atrial appendage ligations prior to cardioversion.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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