

Images in Structural Heart Disease

Watchman Left Atrial Appendage Closure After Incomplete AtriClip Closure



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The AtriClip device (AtriCure, Mason, OH) has emerged as a tool to occlude the left atrial appendage (LAA) concomitantly during cardiac surgery or as a stand-alone procedure. This therapy has previously been shown to have a high success rate with regards to safe, complete, and durable LAA occlusion. However, residual stump formation can occur after AtriClip use.¹ A previous study demonstrated feasibility of Watchman device (Boston Scientific, Natick, Massachusetts) use in incomplete surgical ligation but excluded AtriClip patients.² Currently, there are no published reports of Watchman device use for a residual appendage stump after AtriClip.

A 75-year-old male with a past medical history of coronary artery bypass graft surgery, aortic stenosis status post aortic valve replacement, and surgical ligation of his LAA with an AtriClip ligation clip 1 year prior was referred to our center for consultation regarding discontinuation of his oral anticoagulation. He had a past medical history of paroxysmal atrial fibrillation on anticoagulation with Xarelto and later warfarin. The patient experienced fluctuating international normalized ratios with associated severe epistaxis on warfarin. His CHADS-VASc score was 6.

A transesophageal echocardiogram was performed to evaluate the status of the surgical ligation and assess for complete closure of the appendage. This demonstrated the presence of a residual nonoccluded stump of the appendage with a maximum ostium of 1.1 cm and depth of 1.3 cm (Figure 1a). Atrial appendage angiography confirmed the residual stump (Figure 1b, Supplemental Video 1), and a 21 mm Watchman device was successfully deployed.

In summary, surgical AtriClip device use may provide better long-term closure of the LAA than suture ligation or stapled excision, but residual appendage stumps can still occur. Appropriate clinical anticoagulation management in the presence of a residual lobe or stump is unknown. The use of a Watchman device to occlude the residual stump is feasible in selected LAA anatomies. The long-term outcomes of this strategy remain to be assessed.

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Supplementary Material

Supplemental data for this article can be accessed on the [publisher's website](#).

Abbreviation: LAA, left atrial appendage.

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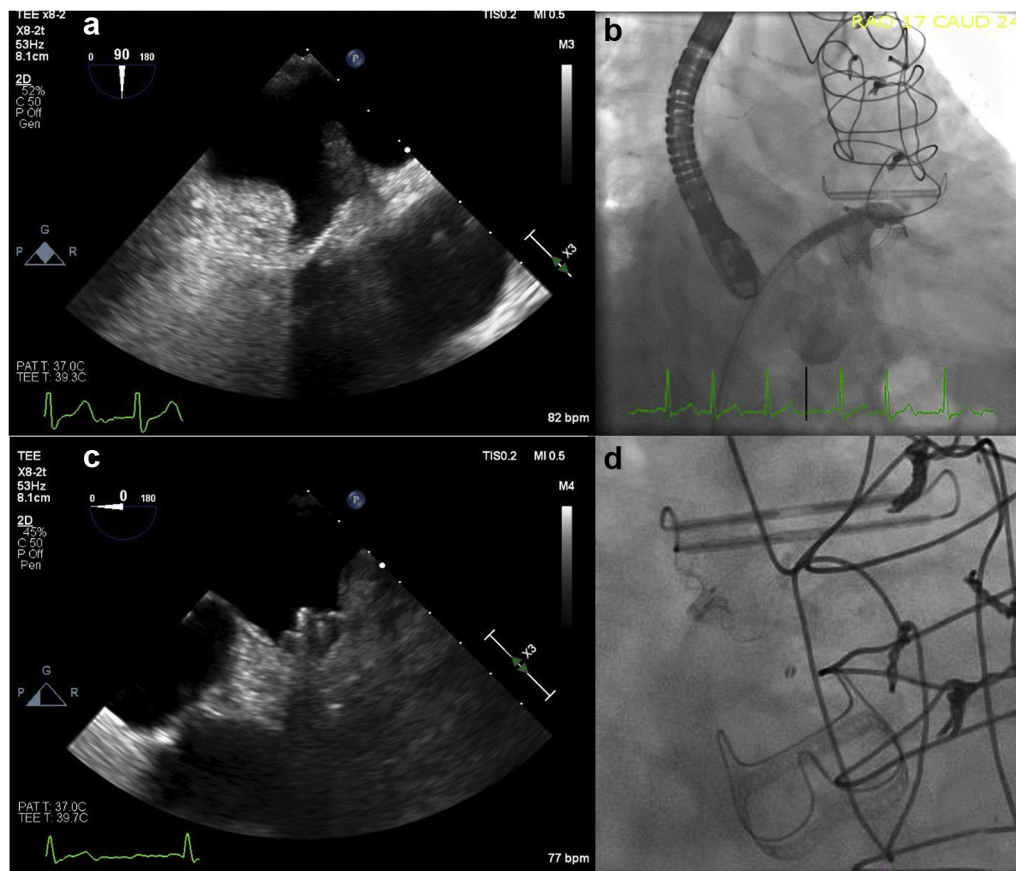


Figure 1. Left atrial appendage AtriClip with residual stump present and post successful Watchman implantation. Residual appendage is visible by echocardiography (a) and angiography (b). Post-Watchman deployment TEE (c) and fluoroscopy (d) showing successful Watchman placement adjacent to the AtriClip device. Abbreviation: TEE, transesophageal echocardiography.

References

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