



# Left Atrial Appendage Occlusion in the Presence of Thrombus With a LAMBRE Device

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A 76-year-old man with nonvalvular atrial fibrillation under oral anticoagulant treatment with direct inhibitor of factor Xa was admitted because of systemic embolism. Transesophageal echocardiogram showed a thrombus in a “chicken wing” left atrial appendage (LAA). The patient was discharged on apixaban, 5 mg every 12 h. Transesophageal echocardiogram and cardiac tomography in the following months continued to show thrombus despite different anticoagulant treatments. The patient discontinued treatment because of a dental extraction, and he was admitted due to stroke. Transesophageal echocardiogram showed that the thrombus had reduced its size.

After discussion it was decided to perform LAA occlusion with a LAMBRE device (Lifetech Scientific Inc., Shenzhen, China) and carotid filters to prevent further episodes. To avoid thrombus embolization, the umbrella of the device was partially deployed at the ostium of the appendage and it was advanced under simultaneous counterclockwise rotation (Figure 1). After confirmation of an optimal positioning no further repositioning maneuvers were

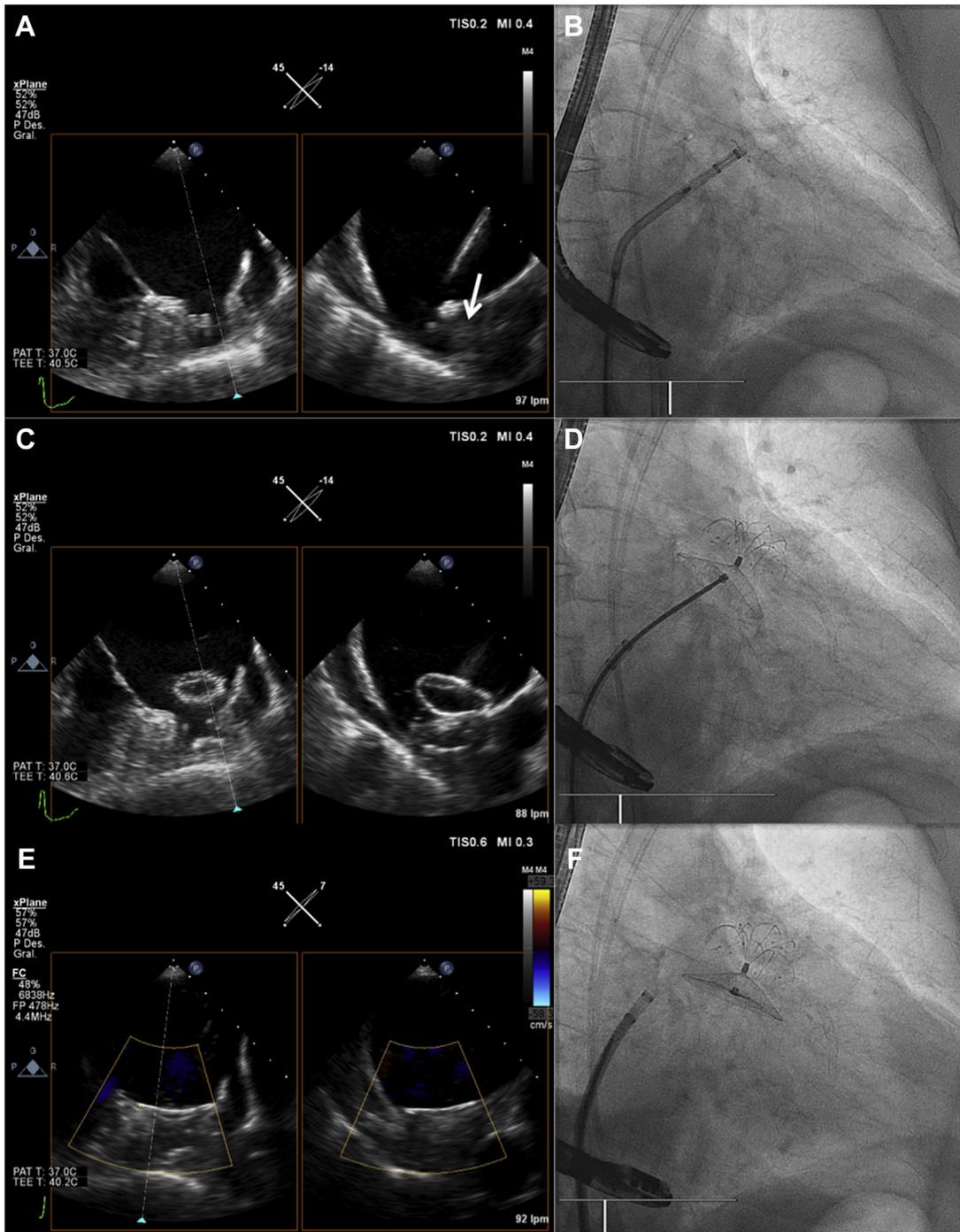
made, the cover was deployed, and the device was delivered successfully (Figure 1). No thrombotic material was collected in the filters.

The data available in the published reports about LAA closure in patients with thrombus are sparse and a few techniques have been described (1). To the best of our knowledge this is the first reported case of LAA occlusion with the LAMBRE in the presence of thrombus. This device recently obtained the Conformité Européenne mark. It is a self-expanded nitinol and polyester device composed of 2 parts: umbrella and cover (2). The distal aspect of umbrella is covered by polyethylene terephthalate membrane (Figure 2). This characteristic could make this device ideal for LAA occlusion with thrombus. The combination of the covered umbrella and the partial deployment at the ostium could potentially prevent thrombus migration.

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**FIGURE 1** Xplane 2-Dimensional Transesophageal Echocardiography and Fluoroscopy Images



**(A and B)** Partially deployed umbrella (arrow shows thrombus inside the left atrial appendage). **(C and D)** Deployment of the cover. **(E and F)** Final result.

**FIGURE 2** LAmbré Device**(A)** Cover and umbrella. **(B)** Distal aspect covered by polyethylene terephthalate. **(C)** Partially deployed umbrella.**REFERENCES**

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