
**IMAGE FOCUS**

**Percutaneous closure of giant left appendages**

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We present two patients in chronic non-valvular atrial fibrillation with absolute contraindication to anticoagulation who were initially rejected for percutaneous closure of the left atrial appendage (LAA) due to the large size of it. Two devices have made the percutaneous closure of both appendages successful at our centre, AMULET (St. Jude) devices with a diameter of 34 mm and an ephonavigator (Philips), which allows the fusion of X-ray fluoroscopy and echocardiography images in two and three dimensions in real time to guide the procedure.

**Case 1**

Echocardiography, computed tomography, and angiography (Panels 1AC) show an appendage of 26 × 32 mm size with very wide, short neck (10 mm), hammer-shaped distal lobes. The AMULET 34 mm device was placed in the neck slightly projecting an edge to the left atrium, with little compression but with stability (Panel 1F).

**Case 2**

With echocardiography (Panel 2A), a large appendage sac with distal lobes (33 mm × 25 mm) is objective. The AMULET 34 mm device was fitted into one of the distal lobes, with acceptable compression and stability (Panel 2C).

In both cases, the fusion of fluoroscopy and echocardiography images (Panels 1D, 1E, and 2B) allowed us to visualize the invisible anatomical structures with fluoroscopy and prevent complications, reduce the amount of contrast, and reduce the procedure time. Both patient recovered without complications and one month follow-up echocardiogram confirmed correct device position.

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