

“LAAC+ASD” one-stop operation using MemoLefort Left Atrial Appendage Occluder System

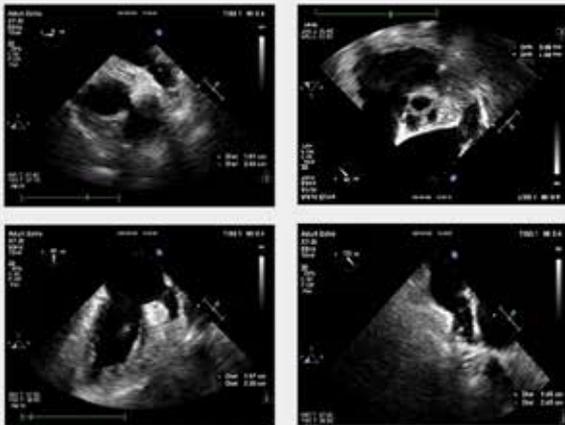
On January 25, 2021, Professor Pan Xiangbin and Professor Hu Haibo from Beijing Fuwai Hospital of the National Center for Cardiovascular Diseases successfully used the newly launched MemoLefort left atrial appendage occluder system to successfully treat a 67-year-old female patient with atrial septal defect and paroxysmal atrial fibrillation at the same time by transcatheter left atrial appendage closure (LAAC) and transcatheter atrial septal defect closure (TCASD).

Patient Information

67-year-old, female, paroxysmal atrial fibrillation combined with atrial septal defect, and a history of hypertension for many years, admitted to the hospital due to asthma for half a year after movement.

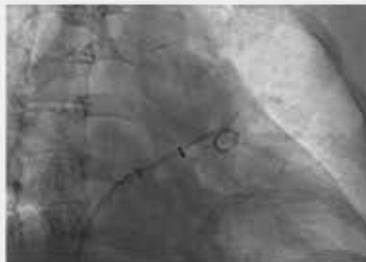
Preoperative transthoracic echocardiography (TTE) measurement results of the left atrial appendage diameter and depth are as follows:

Preoperative TEE Measurement		
Angle	Opening diameter	Depth
0°	16mm	29mm
45°	16mm	28mm
90°	15mm	29mm
135°	16mm	32mm



Preoperative TEE measurement

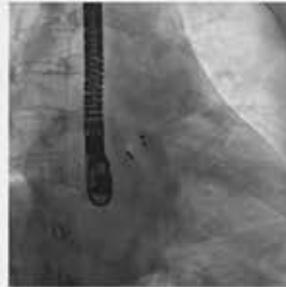
During the operation, the guide wire is delivered into the left atrium through the atrial septal defect through the femoral vein, and into the left upper pulmonary vein. Left atrial appendage angiography was performed to measure the diameter and depth of the left atrial appendage opening with pigtail catheter. The angiographic measurement results showed that the left atrial appendage diameter was 19.2 mm, and the depth was 20-22 mm. Combined with the results of angiography and TEE, the MemoLefort left atrial appendage occluder with a diameter of 24 mm was selected for occlusion.



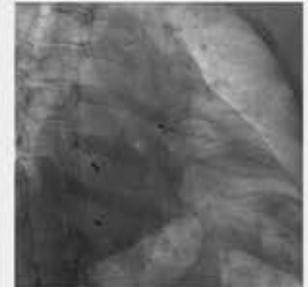
Preoperative LAA Angiography

Under the perfect and precise operation of Professor Hu Haibo, the entire release process was completed in one go. Subsequent review of the angiography and ultrasound results showed that the occlusion was successful. There was no residual shunt, and the compression ratio was 22%. The release was confirmed by a traction experiment. Later, using the same delivery sheath of the left atrial appendage, a 26mm MemoPart ASD occluder was used to successfully occlude the ASD. After the procedure, the heart blood flow returned to normal, the right heart load was significantly reduced, and the patient's chest tightness symptoms improved significantly after the operation.

Postoperative LAA Angiography



Postoperative LAAO



Postoperative TEE result



Comments

Professor Pan Xiangbin: One-stop surgery for congenital heart disease with atrial fibrillation is a hot topic in the interventional treatment of structural heart disease. For ASD patients, simultaneous LAA+ASD occlusion can effectively reduce the risk of long-term ischemic stroke events in patients, and is more conducive to the long-term safety of patients. Fuwai Hospital always values innovation and seeks new technological breakthroughs. I believe that with the launch of new devices, these patients will be given more clinical choices.

Professor Hu Haibo: As an emerging technology, left atrial appendage closure has been widely recognized for its role in preventing stroke, and a large amount of evidence-based medical evidence has also proved its efficacy and safety. In this case of elderly patients with ASD combined with atrial fibrillation, the "LAAC+ASD" one-stop operation is an individualized treatment plan specially tailored for this type of patient. It improves the long-term safety of patients after surgery. The innovation of interventional devices provides a new choice for doctors and patients.