Eccentric mitral regurgitation through the LAmbre closure device

Insuficiencia mitral a través del dispositivo LAmbre

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An 83-year-old female with severe asymptomatic mitral regurgitation (MR) was admitted for an elective percutaneous left atrial appendage occlusion (LAAO) due to severe gastrointestinal bleeding under anticoagulant treatment. The transesophageal echocardiography (TEE) conducted before the procedure confirmed the presence of severe MR due to a flail P2 segment with a jet lesion on the sliding atrial wall adjacent to the appendage. An LAAO procedure was performed and the LAmbre system (Lifetech Scientific) was successfully deployed. A first assessment confirmed the presence of MR jet over the external lobe of the device (figure 1A; LV, left ventricle), but detailed scanning detected one MR jet pathway below the LAAO device (figure 1B,C). The 3D-TEE of the mitral valve P2 scallop (*) is shown on figure 1D-F (Ao, aortic root; LAAO device [#]; the 3D-volume is cropped according to red line to create figure E). The pre-LAmbre device fluoroscopy image is shown on figure G. The steps of this procedure are available at video 1 of the supplementary data. Device change or relocation were not considered. We thought that a LAmbre device was the best option for a cone-shaped appendage since the external disc is far enough from the mitral valve and the internal lobe was at the deepest position possible, totally occluding the appendage. A matter of discussion was whether a shorter disc and lobe would have pulled inside the disc with better results. Double antiplatelet therapy was maintained, and no embolic events or thrombi were seen in the follow-up TEE.

As far as we know, this is the first time that one MR jet running through a percutaneously occluded atrial appendage has ever been reported.

CONFLICTS OF INTEREST

I. Cruz-Gonzalez is a proctor for St. Jude Medical and Boston Scientific.

SUPPLEMENTARY DATA

Supplementary data associated with this article can be found in the online version available at https://doi.org/10.24875/RECICE. M19000022.