Accessory mitral valve tissue: What lies beneath

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Central Message

Accessory mitral valve tissue is rare, but it should be considered in the differential diagnosis of left ventricular outflow tract obstruction.

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Accessory mitral valve tissue (AMVT) is rare; however, it can be an important cause of left ventricular outflow tract obstruction (LVOTO). Presentations are similar to other conditions that cause LVOTO and may include dyspnea, chest pain, fatigue, or syncope. It is often diagnosed incidentally and may be associated with other congenital cardiac malformations. Echocardiography and especially 3-dimensional echocardiogram play a key role in diagnosis. The indications for intervention remain limited to symptomatic patients with LVOTO.¹

In the current case reported by Laguna and colleagues² in this issue of the *Journal*, the authors present a 48-year-old man who underwent resection of a subaortic membrane and later presented with exertional syncope and was found out to have AMVT, which led to complete LVOTO during systole. He underwent repeat operation with resection of this AMVT concomitant with mitral valve (MV) repair and with complete relief of LVOTO. The case represented a delayed diagnosis of AMVT despite the fact the patient underwent previous resection of subaortic membrane.

AMVT may represent a remnant of endocardial cushions that did not fuse with the anterior MV leaflet properly and remains in the left ventricular out flow tract. This anomaly has been classified by Prifti and colleagues³ into different types based on the insertion, mobility, and the relationship to the aortic valve and MV. The greatest challenge during surgery for AMVT is to define the anatomical relationship between the anterior MV leaflet and the AMVT, and resection has to be done with caution to avoid injury to the MV and subsequent incompetence. The presented patient underwent resection of subaortic membrane in his first operation, but his AMVT was not identified at that time. There was no

description of the anatomical features for this membrane during the first surgery, but also this could represent AMVT type I as defined by Prifti and colleagues, which can point to incomplete resection of the AMVT during the first operation. This is not uncommon.

In conclusion, despite its rarity, AMVT should be always considered in the differential diagnosis of LVOTO, and surgery for LVOTO should include assessment of the left ventricular out flow tract and inspection of the other less-common etiologies such as AMVT, anomalous chordae, and abnormal papillary muscles.

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