Double-Orifice Mitral Valve with Leaflet Perforation

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Picture 1.

Picture 2.

Picture 3.

An 81-year-old woman with atrial fibrillation was referred to our institution due to acute right lower limb ischemia with absent pulses. A physical examination revealed a grade-2 systolic murmur at the apex. Two-dimensional transthoracic echocardiographic short-axis images showed two asymmetric orifices at two different locations (Picture 1, medial orifice: MO, and lateral orifice: LO). A hole-type double-orifice mitral valve was diagnosed based on the echocardiographic findings (1). No abnormalities were observed in the other heart valves. Color-Doppler echocardiography demonstrated severe mitral regurgitation (Picture 2, arrowhead), probably due to a small cleft or defect (Picture 2, white arrow) in the anterior leaflet tip of the medial orifice. Rather than a cleft, 3-dimensional transthoracic echocardiographic imaging from a ventricular perspective clearly showed a small, isolated perforation of 3 mm in di-

ameter at the site (Picture 3, black arrow). However, it is unclear whether the leaflet perforation occurred due to a congenital disorder or an acquired disorder such as infective endocarditis.

The authors state that they have no Conflict of Interest (COI).

Reference

1. Trowitzsch E, Bano-Rodrigo A, Burger BM, Colan SD, Sanders SP. Two-dimensional echocardiographic findings in double orifice mitral valve. *J Am Coll Cardiol* 6: 383-387, 1985.

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