Septal Myectomy in Recurrent Subaortic Membrane

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A 54-year-old woman, with a history of congestive heart failure in 1984 and surgical resection of subaortic membrane (SAM) in 2001, was readmitted to our hospital for dyspnea. Transthoracic echocardiography documented severe subaortic stenosis, with a mean transvalvular gradient of 42 mmHg, reappearance of SAM, and protrusion of the interventricular septum, which left 0.8 cm² in the left ventricular outflow tract (LVOT). Computed tomography confirmed these findings (Fig. 1A, asterisk) and demonstrated severe aortic regurgitation. Surgical treatment was decided, consisting of SAM resection, septal myectomy, and aortic valve replacement.

During the procedure, a dense, fibrous SAM was seen to be obstructing the LVOT at 14 mm from the origin of the aortic valve. Exposure was achieved through a median sternotomy and transverse aortotomy, and the SAM was easily extracted from the LVOT. Concomitant septal myectomy was performed, and 15 µL was extracted from the interventricular wall (Fig. 1B). Lastly, following implantation of a 19-mm Bicarbon Slimline mechanical valve (Sorin Group, Saluggia, Italy), the LVOT increased from 10 to 22 mm (confirmed by transesophageal echocardiography, Fig. 1C) in 66 minutes of aortic clamping. The patient was discharged with no complications at 13 days. At 6 months, she remained asymptomatic and the mean transaortic gradient was 8 mmHg.

Transaortic SAM resection is an acceptable treatment, but it is associated with a high incidence of recurrence requiring reoperation (6%-30%). Therefore, it is reasonable to consider alternative therapies, such as septal myomectomy, which is associated with a lower rate of recurrence (up to 4%), particularly in cardiac reinterventions.