obstruction is not always the problem with HOCM. However, it would be good to further dissect some of the issues related to those latent patients that did not thrive after surgery.

Summarily, identifying latent HOCM patients is not always clear but remains threatening. As once again nicely described by the Mayo group, one needs to look for it; if you find it, it is treatable and can provide long-term relief for your patient.

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Commentary: Latent messages in a study for latent gradient in hypertrophic cardiomyopathy

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Left ventricular outflow tract obstruction (LVOTO) is a dynamic process involving the septal anatomy and anterior mitral leaflet, and is sensitive to LV load and contraction. The 2020 American Heart Association/American College of Cardiology guideline for hypertrophic cardiomyopathy (HCM) states, “Spontaneous variability in the LVOT gradient can occur with daily activities, food and alcohol intake, or even with quiet respiration. Thus, provocative maneuvers may be necessary in patients with low or absent peak resting gradients (ie, <30 mm Hg) to elicit

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CENTRAL MESSAGE

Patients with latent left ventricular outflow tract gradient may benefit from surgical septal myectomy similar to those with more overt gradient.

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the presence of LVOTO, particularly in patients with symptoms.”¹

Ciu and colleagues² from the Mayo Clinic, in a study that includes the key authors of the 2020 HCM guideline, focus on latent LVOT obstruction. Among patients who had undergone septal myectomy, 629 patients with latent obstruction, resting LVOT gradient <30 mm Hg, and provoked gradient >30 mm Hg, were compared with 1352 patients with resting obstruction. The latent obstruction group had thinner septums (median, 16 mm) compared with the controls (median, 18 mm). Preoperative cardiopulmonary capacity was similarly impaired before surgery, and equally improved afterward.

The study provides a number of important latent messages on this topic. First, the study certainly emphasizes the importance of LVOT assessment with a provocation. But how and what kind? The 2020 HCM guideline discusses the role of comprehensive or primary HCM centers for advanced echocardiographic imaging to detect latent LVOTO, whereas initial and surveillance transthoracic echocardiograms can be performed at referring centers. In the present study, the effectiveness of provocation was 71.4% for the Valsalva maneuver and 89.0% for amyl nitrites for patients selected for these interventions.² Additionally, exercise echocardiography is an appropriate method for provoking obstruction, with the capability of predicting future development of progressive heart failure symptoms and differentiating patients with latent obstruction from those without obstruction.³

Second, a question remains whether HCM with latent obstruction is a distinct, milder subtype of obstructive HCM or if it will eventually progress to resting obstruction. Further investigation is required to unveil the natural history of latent obstruction and determine the benefit of wide employment of provocative transthoracic echocardiogram to risk-stratify patients for septal reduction therapy.

Last, the authors discuss that patients with latent obstruction may be less likely to undergo surgical myectomy, implying the need for widening the surgery application to this less-obstructed cohort (as recommended by the 2020 HCM guideline). Together with their recent report, in which they advocate septal reduction therapy without delay after surgical referral, the Mayo Clinic appears to support lowering the current threshold for septal myectomy.⁴

Claiming these reported benefits requires achieving a similar surgical excellence as the Mayo Clinic: Early mortality rate of 0.5% and the new complete heart block rate of 2.7%.² Although the authors reported no difference in operative technique, surgery for HCM with a thinner septum has been known for its technical challenges⁵ and unique mitral anatomy.⁶ What about a role of alcohol septal ablation in this cohort given this procedure favors a thinner septum?⁷

Great study generates more questions than answers.

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