

Multiple and Mixed Valve Disease

Epidemiology

Multiple valvular heart disease, ie, the combination of stenotic or regurgitant lesions occurring on ≥ 2 cardiac valves, and mixed VHD, ie, the combination of stenotic and regurgitant lesions on the same valve.¹ Multiple and mixed VHD are highly prevalent. Whereas rheumatic heart disease remains the most prevalent pathogenesis in developing countries, degenerative pathogeneses are more prevalent in industrialized regions. Regurgitation of atrioventricular valves secondary to cardiomyopathy or long-standing primary valve disease, and late effects of radiation therapy, are further causes of multiple VHD.² Multiple VHD is common, encountered in nearly 30% of patients with left-sided native VHD, and associated with greater cardiac damage and leads to higher mortality and more heart failure at 6 months than single VHD.³

Diagnosis

Echocardiographic characteristics and multimodality imaging parameters are presented in Table 1.

Therapy

Recommendations are presented in Tables 2 and 3.

References

1. Unger P, et al. Multiple and Mixed Valvular Heart Diseases. *Circ Cardiovasc Imaging*. 2018;11:e007862.
2. Praz F, et al. 2025 ESC/EACTS Guidelines for the management of valvular heart disease. *Eur Heart J*. 2025.
3. Tribouilloy C, et al. Characteristics, management, and outcomes of patients with multiple native valvular heart disease: a substudy of the EURObservational Research Programme Valvular Heart Disease II Survey. *Eur Heart J*. 2022;43:2756-2766.