

Asymmetric septal hypertrophy with left ventricular outflow tract obstruction treated with transcatheter ablation of septal hypertrophy: a case report

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Introduction: Hypertrophic cardiomyopathy (HCM) is a genetic cardiac disorder characterized by the thickening of the myocardial walls of the heart.¹ It can lead to structural and functional abnormalities of the heart and is a common cause of sudden cardiac death. Treatment for HCM typically includes medications, lifestyle modifications, and sometimes surgical interventions, including Transcatheter Ablation of Septal Hypertrophy (TASH). This case report presents a patient who underwent a TASH procedure to manage symptoms of the HCM.

Case report: A man born in 1983, without previous known heart pathology, working as a chief engineer in a shipyard in South Korea presented himself in November 2019 due to occasional palpitations, discomfort in the chest, and presyncope during exertion. The family history indicated that the patient's father had undergone heart valve surgery. Patient previously underwent cardiological examination - echocardiogram showed thickening of the proximal interventricular septum with a gradient in the left ventricular outflow tract of 45 mmHg. MSCT coronary angiography ruled out significant atherosclerotic changes in the coronary arteries but revealed deep bridging in the left anterior descending artery. The patient was recommended medication treatment (bisoprolol 2.5 mg) and advised to undergo further testing including echocardiogram. In February 2020, the patient developed severe symptomatic presyncope and syncope, and the diagnosis of hypertrophic cardiomyopathy was made. The patient underwent a TASH procedure in Bad Neustadt. The pre-procedural gradient at rest was 100 mmHg (up to 200 mmHg post-VES/Valsalva). Patient reported significant improvement in symptoms and could now tolerate moderate physical exertion. Follow-up examinations showed no significant changes or abnormalities. The patient is to this day without anginal symptoms, feeling well, and tolerating moderate physical activity.

Conclusion: This case report demonstrates the successful use of TASH in managing symptoms of HCM in a patient who presented with palpitations and presyncope. While the procedure can be invasive, it may provide significant symptom relief for patients with HCM who do not respond to other forms of treatment. Regular follow-up examinations are essential for monitoring the patient's condition and ensuring optimal long-term outcomes.

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