

Alcohol Septal Ablation in a 19-Year-Old with Hypertrophic Obstructive Cardiomyopathy Patient: A Case Report

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Abstract : Background: Hypertrophic cardiomyopathy is a disease of marked heterogeneity. It is a genetically determined heart disease characterized by significant myocardium hypertrophy that results in diastolic dysfunction, left ventricular outflow tract obstruction, and an increased risk of arrhythmias. The primary treatment in patients with such conditions is negative inotropic drugs, such as beta-blockers, calcium channel antagonists, and disopyramide. However, for those who remain symptomatic and need septal reduction therapy, surgical septal myectomy or alcohol septal ablation are options. Case Summary: A 19 - year old female presented in the authors' institution with easy fatigability. The consult was done a year prior, and 2D echocardiography was requested which showed concentric left ventricular hypertrophy, asymmetrically hypertrophied interventricular septum (IVS) with the largest diameter of 3.3cm & subaortic dynamic obstruction with a maximum gradient of 47 mmHg. A repeat echo a year later showed asymmetric septal hypertrophy (IVS measuring at 3cm) with the systolic anterior motion of anterior mitral valve leaflet and left ventricular outflow tract obstruction (peak gradient of 50mmHg). The patient then underwent alcohol septal ablation and was discharged stable after four days of admission. Conclusion: Hypertrophic obstructive cardiomyopathy, a cardiovascular genetic disease, results in various patterns of left ventricular hypertrophy and abnormality of mitral valve apparatus. The patient is managed medically initially. However, despite optimal drug therapy and significant left ventricular outflow tract obstruction, significant heart failure symptoms or syncope require invasive treatment.

Keywords : hypertrophic obstructive cardiomyopathy, left ventricular outflow tract obstruction, alcohol septal ablation, alcohol

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