Physician - Minimal Invasive, TAVI, Robotic Cardiac Surgery

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Our Clinical Experience with Septal Myectomy in Hypertrophic Cardiomyopathy Patients

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Objective: This study aimed to share our surgical experience of patients with hypertrophic cardiomyopathy (HCM) treated successfully with surgical myectomy at a tertiary center that frequently utilizes minimally invasive approaches in clinical practice.

Methods: This study was conducted with eight patients (5 males, 3 females; mean age: 49.2±12.5 years) patients who underwent surgery for HCM between 2017 and 2024.

Results: All patients were symptomatic. Four of the patients had concomitant mitral valve pathologies requiring surgery, with one patient also having aortic valve pathology. Preoperative mean gradients were 49.1±22.8 mmHg at rest and 102.8±27.2 mmHg with the Valsalva maneuver. One surgery was performed via sternotomy. Two patients were operated on with anterolateral thoracotomy technique and five with a minimally invasive robotic approach. Four patients underwent isolated myectomy. The mean cardiopulmonary bypass time was 165.5±53.8 min, and the mean cross-clamp time was 112.1±42.5 min. No intraoperative complications were observed. A third-degree atrioventricular block, which was treated with an implantable cardioverter-defibrillator, was the only postoperative complication. The mean hospital stay was 7.5±2 days, with a mean intensive care unit stay of 2.38±1.77 days.

Conclusion: Hypertrophic cardiomyopathy is a genetic cardiac disorder with a heterogeneous spectrum of clinical manifestations. Septal reduction therapies are the primary treatment for patients. Septal myectomy has been shown to be effective, providing a reduction in outflow tract gradient and symptoms. Currently, myectomy is the recommended treatment for HCM, and it can be performed via conventional median sternotomy or minimally invasive approaches.

Keywords: Hypertrophic cardiomyopathy, minimally invasive robotic surgery, septal myectomy.

References

1. Maron MS, Olivotto I, Zenovich AG, Link MS, Pandian NG, Kuvin JT, et al. Hypertrophic cardiomyopathy is predominantly a disease of left ventricular outflow tract obstruction. Circulation 2006;114:2232-9. doi: 10.1161/CIRCULATIONAHA.106.644682.
2. Ommen SR, Mital S, Burke MA, Day SM, Deswal A, Elliott P, et al. 2020 AHA/ACC Guideline for the diagnosis and treatment of patients with hypertrophic cardiomyopathy: A report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. J Am Coll Cardiol 2020;76:e159-240. doi: 10.1016/j.jacc.2020.08.045.
3. Rastegar H, Boll G, Rowin EJ, Dolan N, Carroll C, Udelson JE, et al. Results of surgical septal myectomy for obstructive hypertrophic cardiomyopathy: The Tufts experience. Ann Cardiothorac Surg 2017;6:353-63. doi: 10.21037/acs.2017.07.07.