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MEETING ABSTRACT Open Access

Mitral Subvalvular Apparatus Intervention In Patients With Obstructive Hypertrophic Cardiomyopathy: does it need?

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Background/Introduction

Systolic anterior motion (SAM) and mitral regurgitation (MR) in patients with hypertrophic obstructive cardiomyopathy (HOCM) is associated with: Venturi effect and small LV cavity. According 2011 ACCF/AHA guideline extended myoectomy is gold standard in treatment patients with HOCM, however mitral subvalvular apparatus (MSA) intervention is still unclear.

Aims/Objectives

The purpose of this randomize study was assessment MSA intervention during extended septal myectomy in patient with HOCM and moderate to severe MR.

Method

Between 2010 and 2014, 182 patients underwent of extended myectomy procedures. 70 patient met inclusion criteria: were randomly assigned to receive MSA intervention in addition to septal myectomy (MSI group; n = 36) or undergo septal myectomy only (without MSI group; n = 34). A primary HOCM was the main indication for surgery according to 2011 ACCF/AHA guidelines. Mean age was 52.8 ± 14.2 years (range 22 to 74 years). Mean peak gradient was 90.7 ± 24.2 mm Hg. Mean thickness of interventricular septum was 26.1 ± 4.3 mm. SAM syndrome observed in all patients. MR: moderate - 42 (60%) pts, severe 28 (40%) pts.

Results

There were no early death. MSA intervention include: mobilization papillary muscle 36 (100%) pts, secondary chords resected 36 (100%) pts (from 2 to 6), longitudinal resection papillary muscles (papillary muscles more than 15 mm) 32 (88.9%) pts and excision of abnormal papillary muscles 9 (25.0%) pts. Residual MR ≤2+ was 14.7% (5 pts) in group without MSA and nobody had in MSA group (p = 0.023); residual SAM was 23.5% (8 pts) in group without MSA and only 1 (2.7%) pts had in MSA group (p = 0.01). Mean time cross clamping was 42.4 ± 15.2 min (without MSA) and 56.4 ± 20.8 min (MSA group) (p = 0.002). Peak LVOT gradient was 12.2 ± 6.3 mm Hg (without MSA) and 8.7 ± 4.5 mm Hg (MSA group) (p = 0.009).

Discussion/Conclusion

MSA intervention during septal myectomy in patients with HOMC and MR safe and effective procedure. Complex MSA intervention as in addition to septal myectomy allows more effective eliminate SAM-syndrome and MR.

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