

Anatomical Reconstruction of Degenerative Mitral Valve Prolapse. Long-Term Follow-up
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Objective: As far as anatomical reconstructive surgery for degenerative bi-leaflet mitral valve prolapse (DBMVP) is concerned our techniques had the purposes to preserve the anatomical configuration through: bi-leaflets shape, the central left ventricle inlet (inter-papillary area), shaping the leaflets and the native chordae. The edge-to edge technique was limited to the para-commissural prolapses.

Methods: From 2000 to 2011, 140 patients were treated for DBMVP. The standard procedure was the excision of posterior leaflet major elongation or ruptured chordae area followed by a II order chordal transposition from posterior to anterior leaflet free edge to the area of major elongation or ruptured chordae (120 patients). 16 patients had a commissural edge-to-edge. The posterior leaflet was reconstructed with different techniques: a longitudinal suture of the annulus and residual scallops (79 patients); a sliding suture of the residual posterior scallops (3); a z-plasty suture (41). Posterior annuloplasty trygon-to-trygon was performed in all patients with an autologous pericardium strip. Mean age was 56.4 years. 18,2 % of patients were in NYHA class I, 34 % in NYHA II, 42,8 % in NYHA III, 5% in NYHA IV.

Results: There were no hospital deaths. Two patients were re-operated within 30 days and two after 6 months because of recurrent mitral regurgitation. TTE was performed yearly and clinical follow-up was complete at a mean of 5.9 years. All patients had satisfactory mitral valve area, good leaflets motion, inter-papillary muscle distance preserved, no left ventricle outflow tract obstruction.

Conclusions: Most of our patients were pre-operatively in I-II NYHA class (52%). Besides 94.5% of such patients at long term follow-up were still in I-II NYHA class suggesting an early surgical strategy in asymptomatic patients, before the development of left ventricular dysfunction. Our technique in DPMVP patients provides an high quality and durability repair.