

Mitral Valve Repair With "snail Technique" ; A great Weapon Against Systolic Anterior Motion (SAM)

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We here by present a case of a 35 years old female who was presented to us with shortness of breath and palpitation. The physical examination revealed a systolic murmur at the 5.ICS below the left nipple. The ECG was in sinus rhythm with VES. 24 hour rhythm holter presented 8% of VES. Transthoracic and Transesophageal Echocardiogram showed severe mitral regurgitation due to bileaflet prolapse (Barlow disease, MAD). Ejection fraction was 65%, LA was 41mm in diameter and no coronary lesion. During surgery valve analysis presented normal anterior leaflet with posterior leaflet prolapse at P2. We used a snail technique first described by Patrick Perier to repair the posterior leaflet. During snail technique a prolapsed segment P2, artificial chordae consisting of 2 × 2 strands were secured to the posterior heads of both the anterior and posterior papillary muscles. These chordae were then passed through the free edge of the PL and pulled gently with no tension to avoid restriction. The sutures were brought several times through the leaflet before going through the mitral annulus. They were then brought superficially through the endothelium of the left atrium (to avoid the circumflex artery) 1.5 cm behind the annulus avoiding interfering with the annuloplasty ring. The ventricle was filled to determine optimal length of chordae and then they were tied. Annuloplasty measurement of the ring was done and the ring was secured with a Cor knot. Final water test revealed no regurgitation with coaptation line towards the posterior leaflet. Postoperative TEE revealed good coaptation of mitral valve with no regurgitation. Follow up echo reveals excellent results and 24 hour rhythm holter revealed decrease in VES to 3%.