P85. Mitral Valve Function Following Repair With Either Leaflet Resection Or Implantation Of Neochordae - Results Of An Echocardiographic Exercise Study

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OBJECTIVES: Leaflet resection and implantation of neochordae are two well established techniques for repair of posterior mitral leaflet (PML) prolapse. We sought to assess the hemodynamic function of mitral valve (MV) following repair with either technique in an echocardiographic follow up exercise study.
METHODS: Forty patients who had previously undergone MV repair for isolated PML prolapse with either resection (n=20) or loops (n=20) were selected. All patients underwent routine clinical and echocardiographic follow up. Additionally patients were stressed on a bicycle ergometer in 25 Watt intervals and examined by transthoracic echocardiography.
RESULTS: At baseline and follow up patient characteristics (age, sex, body mass index, NYHA, cardio-vascular risk factors) were similar between groups. Duration since surgery was 2.2+/-0.8 years. Echocardiographic examination at follow showed larger mitral orifice area following loops with 2.9+/-1.1 cm2 than following resection with 2.4+/-0.5 cm2 and had a trend towards significance (p=.1). Mobility of the PML was greater in the loop group with 4.4+/-1.6 mm than compared to resection 4.0+/-1.4 mm, although this did not reach statistical significance (p=.4). Thirty-three patients were able to reach the 100 Watt exercise level. During ascending levels of exercise pressure gradients similarly increased within both groups, but were indifferent between groups at 100 Watt with a mean gradient of 8.9+/-3.1 mmHg for loops and 8.4+/-3.0 mmHg for resection.
CONCLUSIONS: Both repair techniques result in excellent hemodynamic function of the mitral valve. Although lacking statistical significance, the loop technique seems to be beneficial in terms of the native mobility of the PML.