MTRAL RESURGENTATION AS A COFACTOR IN MITRAL VALVE PROLAPSE WH. Marcus, M. Hame, A. Hame, Am.: |Medic. Res. & Serv., Brooks AFB, Texas 78605

DISEASE: MR. History, physical examination, echocardiography, Holter monitor, and other testing (including suboesophageal cineangiography) was performed. Mitral regurgitation was considered present if there was a left atrial diameter > 40 mm, a left ventricular mass index > 190 g/m², and any degree of aortic stenosis. The diagnosis was confirmed by angiography. The severity of mitral regurgitation was assessed by echocardiography in 13 of these patients. Some degree of MR (mild, moderate, or severe) was noted in 31% of the patients.

RESULTS: The 198 patients underwent 320 evaluations averaging 1.5 visits per subject. MR was noted on physical exam and/or echocardiography in 13 of these patients. Some degree of MR (mild, moderate, or severe) was noted in 31% of the patients. Holter monitor monitoring and/or assessment of peak RV pressure were significantly correlated with aortic stenosis and/or aortic regurgitation.

CONCLUSION: This study demonstrates that mitral regurgitation is not uncommon in patients with severe aortic stenosis. It is important to be aware of this condition and to consider it in the differential diagnosis of patients with symptoms suggestive of aortic stenosis. The presence of mitral regurgitation may indicate the need for additional diagnostic testing and intervention.

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INTRODUCTION: Changes in blood volume during space flight are thought to contribute to decrements in post-flight orthostatic function. The purpose of this study was to determine whether gender affects red cell mass and plasma volume during a short exposure to simulated microgravity, and whether gender differences in orthostatic tolerance (OT) were present during bedrest. 

METHOD: Subjects (n=198) were divided into groups by gender during a 13-day bedrest period. 

RESULTS: Plasma volume (PV) and red cell mass (RCM) were measured before bedrest and on bedrest day 13. On the same days, orthostatic tolerance (OT) was measured using the 2-min test for presyncope. Changes in RCM during bedrest were greater in women than in men. 

CONCLUSION: Women had greater changes in RCM during bedrest than men. Women also had lower orthostatic tolerance than men. This suggests that gender differences in orthostatic responses may be due to differences in red cell mass and plasma volume.