STRESS ECHOCARDIOGRAPHY: A VERY USEFUL TEST IN THE MANAGEMENT OF PATIENTS WITH MITRAL VALVE STENOSIS

O. De Diego Soler, E. Ferrer Sistach, N. Vallejo Camazón, J. Lopez-Ayerbe, A. Teis Soley, F. Gual Capllonch, S. Serrano Garcia, E. Bernal Labrador, G. Juncà Puig, A.
Bayés-Genís - Germans Trias i Pujol Hospital, Cardiology, Badalona (Barcelona), Spain.

BACKGROUND

- Symptoms derived from mitral valve stenosis (MS) are sometimes equivocal and thus, indicating intervention in the appropriate moment (either percutaneous commisurotomy or surgery) is not easy.
- Stress echocardiography (SE) in these patients is an underused test.

AIM

- Assess the clinical utility of stress echocardiography in the evaluation of patients with rheumatic MS (mitral stenosis).

BASELINE CHARACTERISTICS

	Group A (negative SE) n = 4	Group B (positive SE) n = 11	Statistical signification
Age	63±10 years	62±10 years	No statistical sign.
Hipertension	50%	55%	
Atrial fibrillation	70%	74%	
Acenocumarol	60%	80%	
Beta-blockers	50%	63%	
Medium Gradient	4 mmHg	6 mmHg	
Mitral regurgitation	1.7	1.5	
LVEF	65%	64%	
PAP	34 mmHg	42 mmHg	p < 0.035

FOLLOW-UP AT 6 MONTHS

Group A (negative SE)	Group B (Positive SE)	Statistical signification
0% intervention	63% intervention (7 patients)	p<0.024

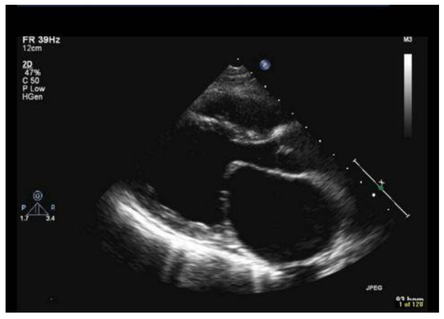
- Among the 7 patients of group B that underwent intervention, 3 received percutaneous commisurotomy, 1 patient received a biological prosthesis and in 3 patients mechanical prostheses were implanted.
- No differences were observed in mortality at 6-months follow-up.
- Stress Echocardiography settled indication for intervention in 53% of the patients and implied changes in management in 93% of patients.

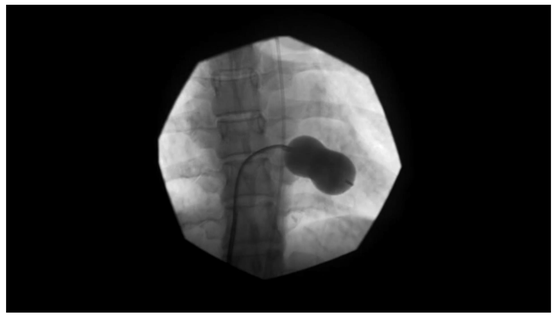
METHODS

- SE was performed in 15 patients with clinically significant MS (mitral valve area (MVA) <1.5 cm2) which had not a previous formal indication for intervention.
- The result was considered positive if mean transvalvular gradient increase over 15 mmHg, systolic pulmonary pressure over 60 mmHg or symptoms were observed.

STRESS ECHOCARDIOGRAPHY RESULTS

	Group A (negative SE) n=4	Group B (positive SE) n=11	Statistical signification
Clinically +	0%	7%	p = 0.03
Medium Gradient	8 mmHg	18 mmhg	p = 0.01
PAP	51 mmHg	69 mmHg	p = 0.03
Mitral regurg.	1.7	1.8	No statistical differences
LVEF	63%	65%	
METS	5	5.3	





CONCLUSIONS

- Stress echocardiography is a useful test in the management of patients with clinically significant MS because it implies changes in management and in a high proportion indicates intervention.
- In patients with clinically significant MS, the presence of mild systolic pulmonary hypertension is the only factor that was related with a positive result in stress echocardiography.
- A negative results is strongly correlated with clinical stability and no need of interventionism.