Conclusion.— In organic mitral regurgitation RV function depends not only on PASP but also on LV remodeling and septal function.

doi:10.1016/j.acvd.2011.03.073

Persistence of abnormal left ventricular systolic function after an aortic valve replacement for to aortic stenosis

B. Feit, E. Donal, B. Lelong, G.-V. Ruggieri, A. Leguerrier

CHU de Rennes, Rennes, France

Background.— Patients with severe aortic stenosis have impaired systolic function, despite a normal LVEF. Global Longitudinal Strain (GLS) is a simple and reproducible measurement of these abnormalities of contraction. Measurements of distortion (strain) in the radial (GRS) and circumferential direction (GCS) are also possible.

Objective.— We want to evaluate the impact of aortic valve replacement for severe symptomatic aortic valve stenosis on the myocardial function recovery evaluated according to a dynamic protocol: at rest and during a standardized stress echocardiography.

Methods.— We prospectively studied 22 patients 6 months after aortic valve replacement. These patients were treated with the same aortic valve bioprosthesis (Magna Ease). These patients gave their informed consent. They were able to provide a standardized effort on a tilting table. Rest echocardiography showed normal functioning of the prosthesis, normal LVEF, without other valvular disease.

Results.— At rest, left ventricular ejection fraction (66.6 ± 9.16%), septal wall end-diastolic thickness (13.23 ± 2.68%), left ventricular end-diastolic diameter (50.4 ± 8.5 mm) were measured at the same time that the GLS (−17.27 ± 3.23%). Despite a normal LV EF, 36.36% of patients have a GLS < −17%. The GCS was on average −20.85 ± 5.16%. 22.7% of patients have a GCS < −17%. Nevertheless most patients have normal GRS (44.69 ± 18.02%). During exercise, most patients in our study do not increase LVEF, despite the good hemodynamic performance of the valve prosthesis (mean trans-aortic gradient at rest was 19.9 ± 3.72 mm Hg, with a mean valve area to 1.51 ± 0.29 cm² at rest and 1.32 ± 0.27 cm² during exercise). Only 31.8% of patients show an increase in LVEF greater than 5% during a planned submaximal effort at 60-watt. The patients should reach a heart rates ∼110 ± 10/min and exercise should last over 8 minutes. The GLS does not increase during exercise with a mean value to the effort of −18.05 ± 3.47%. Only 9% of patients show increase of LV longitudinal function during exercise with an increase in GLS of 5% or more.

Conclusion.— After aortic valve replacement for severe aortic stenosis, abnormal LV systolic function can be objectified via measurements of the GCS and GLS.

doi:10.1016/j.acvd.2011.03.075

Long-term follow-up of patients with the carcinoid syndrome

N. Mansencal, E. Mitry, P. Rougier, O. Dubourg

Hôpital Ambroise-Paré, Boulogne, France

Background.— Carcinoid heart disease (CHD) may occur in patients presenting with carcinoid tumor and carcinoid syndrome. Studies evaluating the echocardiographic follow-up of these patients remain rare. The aim of this prospective study was to assess the progression of CHD.

Methods.— We studied 90 consecutive patients presenting with carcinoid tumor and carcinoid syndrome. All patients underwent annual transthoracic echocardiographic studies and biological carcinoid markers. We used a previous validated score of CHD severity.

Results.— At baseline, prevalence of right- and left-sided CHD was 32% and 8%, respectively, whereas at the end of follow-up (mean FU: 38 months), this prevalence was respectively 52% and 20%. Correlations were strong between urinary 5-HIAA and CHD score (r = 0.86, P < 0.0001). All patients with at least 3 years of carcinoid syndrome and increased level of urinary 5-HIAA presented with echocardiographic evidence of CHD. Interestingly, after 3 years of echocardiographic follow-up of treated patients with carcinoid syndrome but without CHD, no patients developed CHD.

Conclusion.— Prevalence of CHD remains high and increases during follow-up. Carcinoid heart disease progresses over time, highlighting the need for echocardiographic follow-up once the diagnosis of carcinoid syndrome is made.

doi:10.1016/j.acvd.2011.03.074

Low-flow low-gradient aortic stenosis: Prognostic impact and effect of surgery


a CHU La Timone, Marseille, France
b CHU Arnaud-de-Villeneuve, Montpellier, France
c Hôpital Haut-Lévêque, Bordeaux, France
d Hôpital Pontchaillou, Rennes, France
e CHU de Liège, Liège, Belgium

Background.— Low-flow low-gradient aortic stenosis with preserved ejection fraction is a recently described entity, but its prognostic implication has only been little studied.