Reviewer's report

Title: Role of Echocardiography in Diagnosis and Risk Stratification in Heart Failure with Left Ventricular Systolic Dysfunction

Version: 2 Date: 28 July 2007

Reviewer: Maurizio Galderisi

Reviewer's report:

General

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

This review can have an important clinical impact since it deals with a very important issue; the echocardiographic assessment of patients with systolic heart failure.

The manuscript is well written but too long and needs to be shortened in some parts.

Major Concerns

1. The methodological issues could be much shortened since the readers can obtain these information by the relatively new guidelines of ASE and EAE (ref # 15): e.g., “minor or long axis for LV chamber quantification at page 6, volumetric measurements at page 6, Doppler derive mitral inflow at page 11.

2. In the chapter “Left ventricular remodeling (the big heart) the authors shall specify that LV concentric remodeling and hypertrophy are associated with LV diastolic dysfunction (the stiff heart) while LV dilation and eccentric hypertrophy are associated LV systolic dysfunction. This is very important to distinguish post-MI LV remodeling from the first stages of hypertensive of diabetic remodeling. In this chapter it has also to be specified how, in several epidemiological studies, LV end-systolic volume has a greater prognostic role than LV ejection fraction.

3. In the chapter “Left ventricular diastolic dysfunction” Tissue Doppler measurements should be obtained at least as the average of septal and lateral mitral annulus. The advantage and limits of both septal and lateral sampling of the mitral annulus as well as the age-dependence of Tissue Doppler measurements (see Innelli P et al, Eur J Echocardiogr 2007) shall be taken into account by the authors. Cut-off points of Tissue Doppler measurements have to be reported.
4. The title of the chapter “Stress echo: evaluation of myocardial viability” should be changed since the contractile reserve is not only and always expression of myocardial viability (it depends on the specific clinical setting).

Minor concerns
1. In the legend of figures with echocardiographic pictures the sources shall be specified (personal? studies? guidelines?)
2. IF LV = Left ventricle, LV cannot be = left ventricle

Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.