Reviewer's report

Title: The prognostic importance of a history of hypertension in patients with symptomatic heart failure depends on the diastolic (but not systolic) function.

Version: 2 Date: 28 February 2012

Reviewer: Claudia Zemmrich

Reviewer's report:

Review Biomed paper

Common statement:

Although it is already well known, that prognosis of heart failure patients correlates better with mitral flow velocity variables and filling patterns than with LV EF the present paper nicely shows this again. But the title doesn´t reflect this key result of the present study as the goal of the study was obviously to investigate a different question: prognostic importance of diastolic or/and systolic parameters in hypertensive vs. not hypertensive HF patients.

It is not consistently clear throughout title, abstract, introduction and results section of the study, if the main investigated factor is RF or hypertension, as the number of patients with RF (425) is nearly double as high as the number of hypertensive patients (257) – those even reflecting a heterogeneous group of patients with significant differences in baseline characteristics.

Detailed comments:

Abstract:

Methods section: misleading number of patients investigated for the present study: not 3078 patients have been studied for the topic, but 122 RF hypertensive patients against 303 restrictive but not hypertensive patients or 257 hypertensive vs. 621 not hypertensive pts

880 patients with mitral inflow measurements available, in results section 878 patients complete data available, please clarify incomplete or complete number of data.

Results section of abstract: isn´t is the way round, that hypertension influenced the outcome associated with RF as RF is the real prognosis relevant factor, not hypertension

Results:

Mean age 73±11, if median of all groups 75 years or higher??? Possible??

The hypertensive and not hypertensive patient do significantly differ in terms of patient characteristics (diabetes, BMI, LVEF, pharmacological treatment). We need adjusted Kaplan-Meier curves to interpret the remaining mortality differences, when these factors are eliminated (are there any left after adjustment at all?)
Discussion: an important limitation (no data on actual blood pressure values) is redundantly mentioned and discussed twice, here and again in limitation section.

Figure 3 Should include HR of RF and non RF patients with and without hypertension

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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