

## Is the clinical presentation of chronic heart failure different in elderly versus younger patients and those with preserved versus reduced ejection fraction?

Eva Steinmann, Hans-Peter Brunner-La Rocca, Micha T. Maeder, Beat A Kaufmann, Matthias Pfisterer & Peter Rickenbacher

### BACKGROUND

Whether the clinical presentation and in particular prevalence of symptoms and signs of heart failure (HF) is different in elderly versus younger patients and in those with reduced (HFrEF) versus preserved (HFpEF) left ventricular ejection fraction (LVEF) is a matter of ongoing debate.

### AIMS

To compare detailed clinical characteristics of these important subgroups and to develop a prediction rule for the differentiation of HFpEF and HFrEF based on clinical parameters.

### METHODS

The analysis was based on the Trial of Intensified versus standard Medical therapy in Elderly patients with Congestive Heart Failure (TIME-CHF) comprising 622 patients  $\geq 60$  years with HF including the whole LVEF spectrum.

### RESULTS

In the groups  $\geq 75$  years and with HFpEF typical symptoms and clinical signs of HF were more prevalent as compared to those  $< 75$  years or with HFrEF, respectively. The burden of comorbidities was higher in the older age group. HFrEF could not be differentiated from HFpEF by symptom history and clinical examination alone. However, a combination of age, presence of pulmonary rales, systolic blood pressure, cause of heart failure, osteoporosis, current smoking, NT-proBNP, haemoglobin, QRS width and heart rhythm allowed to identify HFrEF versus HFpEF with a sensitivity of 81% and specificity of 90% (c-statistics 0.91).

### CONCLUSIONS

More symptoms and signs of HF were present both in the older age group and in patients with HFpEF. HFpEF versus HFrEF could be differentiated by a set of simple clinical, laboratory and ECG parameters but not by symptom history and physical examination alone.

Kantonsspital  
St.Gallen



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