

Clinical profile and prognosis in patients with heart failure and supranormal left ventricular ejection fraction (HFsnEF)

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The aim of the study is to compare the clinical profile and prognosis of patients with supranormal heart failure to the rest of the patients with HFpEF.

Introduction

Heart failure has been divided into distinct phenotypes using the measurement of left ventricular ejection fraction (LVEF), and traditionally, we distinguish heart failure with reduced ejection fraction (HFrEF), mildly reduced ejection fraction (HFmrEF), and preserved ejection fraction (HFpEF). In 2019, it was observed for the first time that there is a significant correlation between the increase in mortality rate and an increase in LVEF value above 60-65%.

Some studies suggest that heart failure with supra-normal ejection fraction (HFsnEF) may be a distinct clinical entity with its own unique characteristics, while others propose that it may be a variant of HFpEF or a result of other underlying medical conditions. Currently, there is no widely accepted diagnostic criteria or treatment guidelines for heart failure with supra-normal EF, and the management of this condition typically involves addressing the underlying causes of the symptoms, such as hypertension, valve disease, or other cardiac disorders.

Methodology

The study will use data from the Observational Study of Heart Failure HEROES conducted by the Polish Society of Cardiology - with the consent of the study chairman, Prof. J. Drożdż, and the study's scientific committee.

The data for the observational study HEROES will be entered based on an electronic case report form (eCRF) developed by the Scientific Committee on behalf of the Polish Society of Cardiology. Patients from the database who meet inclusion criteria will be included in the study, forming a study group that will consist of patients with EF $\geq 60\%$ and a control group that will consist of patients with HFpEF with EF $< 60\%$. The results of subjective and objective assessments, implemented pharmacotherapy, results of imaging and laboratory tests, as well as other important clinical data included in the eCRF, will be compared and subjected to statistical analysis.

One year after the patient's inclusion in the study, a telephone conversation will be conducted to determine their current clinical status, well-being, and the number of hospitalizations due to heart failure.

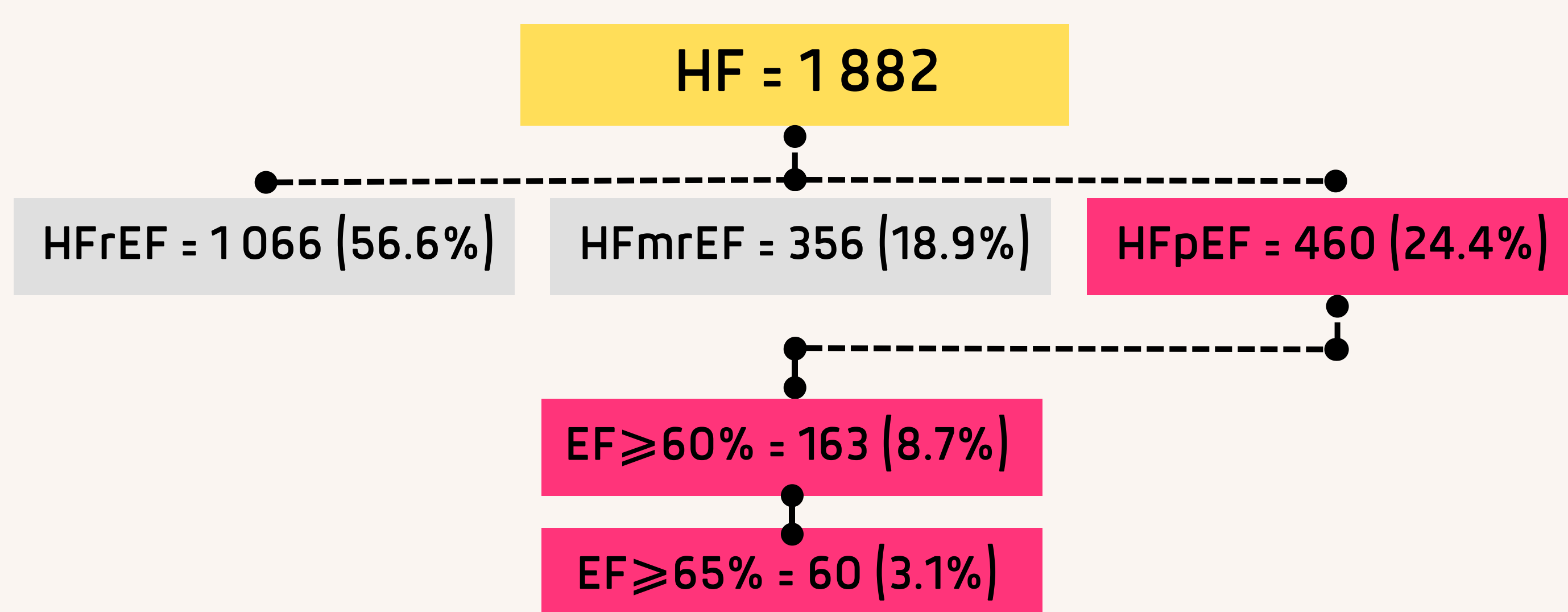
Terminology:

- HFrEF = EF $\leq 40\%$
- HFmrEF = EF 41-49%
- HFpEF = EF $\geq 50\%$
- HFsnEF = EF $\geq 60/65\%$

Inclusion criteria:

- provided written informed consent for data reporting within the HEROES registry
- males and females aged > 18 years of age at the time of consent;
- heart failure with left ventricular ejection fraction $\geq 50\%$

The research hypothesis assumes that patients with HFsnEF have a different clinical profile and a worse prognosis than the remaining group of HFpEF patients.



The figure shows the percentage participation of specific subgroups of this disease entity registered during the years 2011-2013 in the previous heart failure registry (EORP ESC) with a focus on the subgroup of HFsnEF patients.