

**RESEARCH LETTER**

**HFPEF MANAGEMENT AND IMPLICATION OF EMPEROR-PRESERVED IN  
CLINICAL PRACTICE: INSIGHTS FROM INDIAN CARDIOLOGISTS**

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Heart failure with preserved ejection fraction (HFpEF) is a growing burden to the healthcare system due to the lack of proven therapy to reduce mortality and morbidity. Data from the Trivandrum heart failure registry (THFR) reveals that hospital readmissions significantly associated with mortality in patients with HFpEF having a cumulative one-year mortality rate was 27.3%- and three-years mortality was 40.8%.<sup>[1]</sup> This survey-based study aimed to evaluate the opinion of cardiology experts on the application of EMPEROR-Preserved trial outcomes in clinical practice. This was a cross-sectional poll-based opinion survey conducted during the 10 expert group meetings which included 95 cardiologists between September 2021 and October 2021. The majority (56.8%) of participants mentioned that 20-40% of their HF patients are HFpEF (Table 1). This is in line with the previously reported heart failure registries which indicate a prevalence of HFpEF ranging from 31.2% to 50.4%.<sup>[2]</sup> Hypertension was the most prevalent comorbidity in Indian HFpEF (97.4%) patients. A total of 96.7% of participants agreed or strongly agreed that HFpEF is underdiagnosed in India (Figure 1).

Figure 1: Opinion on HFpEF diagnosis and management

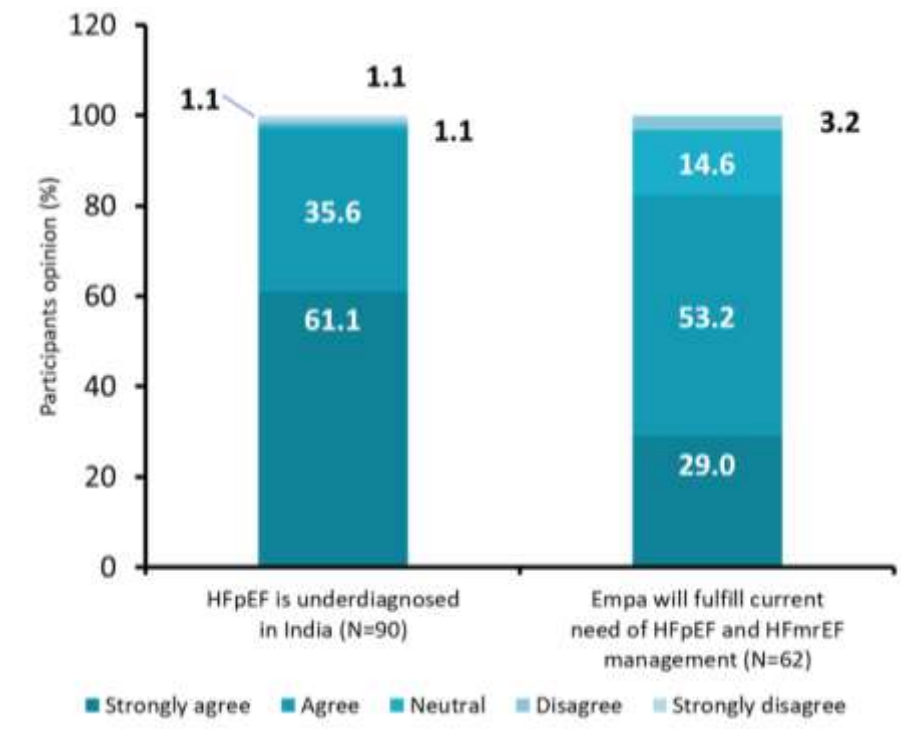
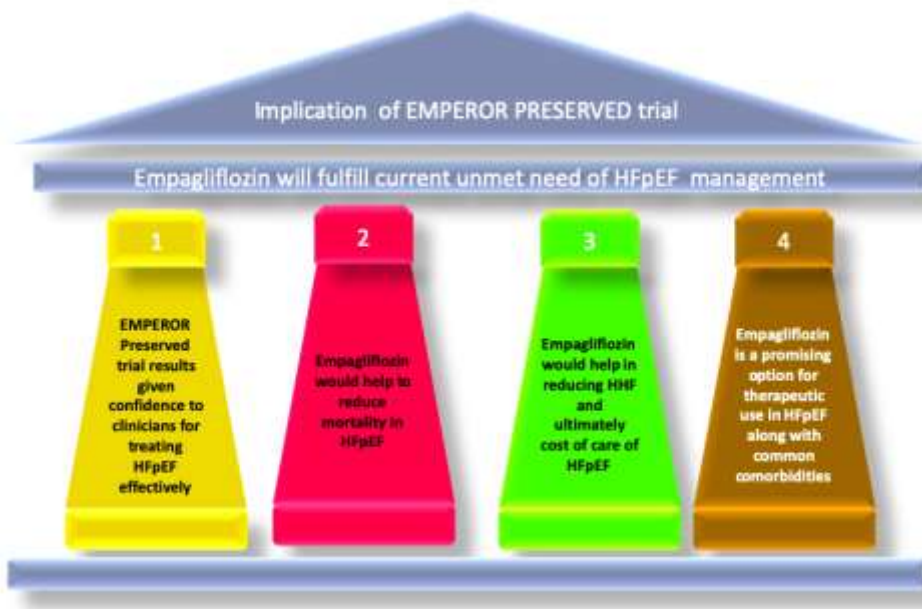


Figure 2. Clinical implication of EMPEROR Preserved in India



The majority of experts (82.2%) believed that empagliflozin will fulfill the current need for HFpEF and heart failure with mildly reduced ejection fraction management (Figure 1). In view of the EMPEROR-preserved trial outcome (27% RRR for hospitalizations for heart failure [HHF]), the majority of participants (85.1%) believe that empagliflozin helps in reducing the direct and indirect cost of hospitalization (Table 1).

**Table 1:** Survey based questionnaire

Survey question	Participants opinion N (%)
<b>In overall HF patients in your clinic, what % of patients are of HFpEF ( EF &gt; 50 %) (N=95)</b>	
10 – 20%	19 (20.0)
20 – 30%	30 (31.6)
30 – 40%	24 (25.2)
40- 50%	15 (15.8)
Above 50%	7 (7.4)
<b>According to you which are common comorbidities of HFpEF in India? (N=78)</b>	
Hypertension	76 (97.4)
Atrial Fibrillation	58 (74.4)
CKD	53 (67.9)
CCS	28 (35.9)
Diabetes	61 (78.2)
Any other	9 (11.5)
<b>Reduced HHF by 27 % in HFpEF observed in trial, What these benefits mean to HFpEF management in India? (N=67)</b>	
It gives confidence to HCPs to treat HFpEF effectively	51 (76.1)
It helps to reduce mortality	24 (35.8)
It helps to reduce direct and indirect cost of hospitalization	57 (85.1)
Cost benefit to larger population those who not covered with insurance	27 (40.3)
<b>In the view of primary outcome benefits observed in overall population and in all subgroup of EMPEROR Preserve trial, Which of the following subgroups according to you will be more benefited in India? (N=67)</b>	
HFpEF with Diabetes	55 (82.1)
HFpEF with AF	30 (44.8)
HFpEF with Hypertension	45 (67.2)
HFpEF with CKD	35 (52.2)
HFpEF with recurrent hospitalization	57 (85.1)
HFpEF with CCS	16 (23.8)
AF, atrial fibrillation; CCS, chronic coronary syndrome; CKD, chronic kidney disease; EF, ejection fraction; HFpEF, heart failure with preserved ejection fraction; HHF, hospitalization for heart failure.	

The cost of hospitalization can be substantially reduced with empagliflozin due to the lower number of HHF and longer time until the first hospitalization.<sup>[3]</sup> Additionally, most of the experts believed that patients with recurrent HHF, heart failure with comorbidities like atrial fibrillation, diabetes, chronic kidney disease and hypertension will benefit the most from empagliflozin. Findings of the EMPEROR-Preserved Trial reported that empagliflozin treatment can significantly reduce the risk of cardiovascular death or HHF in patients with HFpEF and the pattern of benefits was similar in patients with or without diabetes.<sup>[3]</sup> EMPEROR Preserved trial results may lead to paradigm shifts in the management of HFpEF. The overall survey indicates that cardiologists from India believe that EMPEROR-Preserved trial results not only give confidence to clinicians to treat HFpEF effectively but would also help to reduce mortality, HHF and ultimately cost of care for HFpEF patients. The present survey is limited by a small sample size and is a pure opinion only; further usage of empagliflozin would define the outcomes.

In conclusion, HFpEF is underdiagnosed in India and more efforts are needed for early diagnosis. However, empagliflozin looks promising option for therapeutic use in HFpEF along with common comorbidities.

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