



האיגוד הישראלי לכירורגית לב וחזה
THE ISRAEL SOCIETY OF CARDIOTHORACIC SURGERY

האיגוד הקרדיולוגי בישראל
ISRAEL HEART SOCIETY



The 60th International Conference of the Israel Heart Society
in association with the Israel Society of Cardiothoracic Surgery

22-23 April 2013, ICC International Convention Center, Jerusalem

Ejection Fraction and Long-Term Mortality in Heart Failure Patients

Real World Outcome Data from the Heart Failure Survey in ISrael (HFSIS)

Edward Koifman, MD, Eran Kopel, MD MPH, Diego Medvedovsky MD, Elad Maor MD
PhD Ashraf Hamdan MD, Ilan Goldenberg, MD, Robert Klempfner, MD

The Leviev Heart Center; the Heart Institute; the Neufeld Cardiac Research Institute;
Chaim Sheba Medical Center, Sackler Faculty of Medicine, Tel Aviv University, Israel

Disclosures – None.



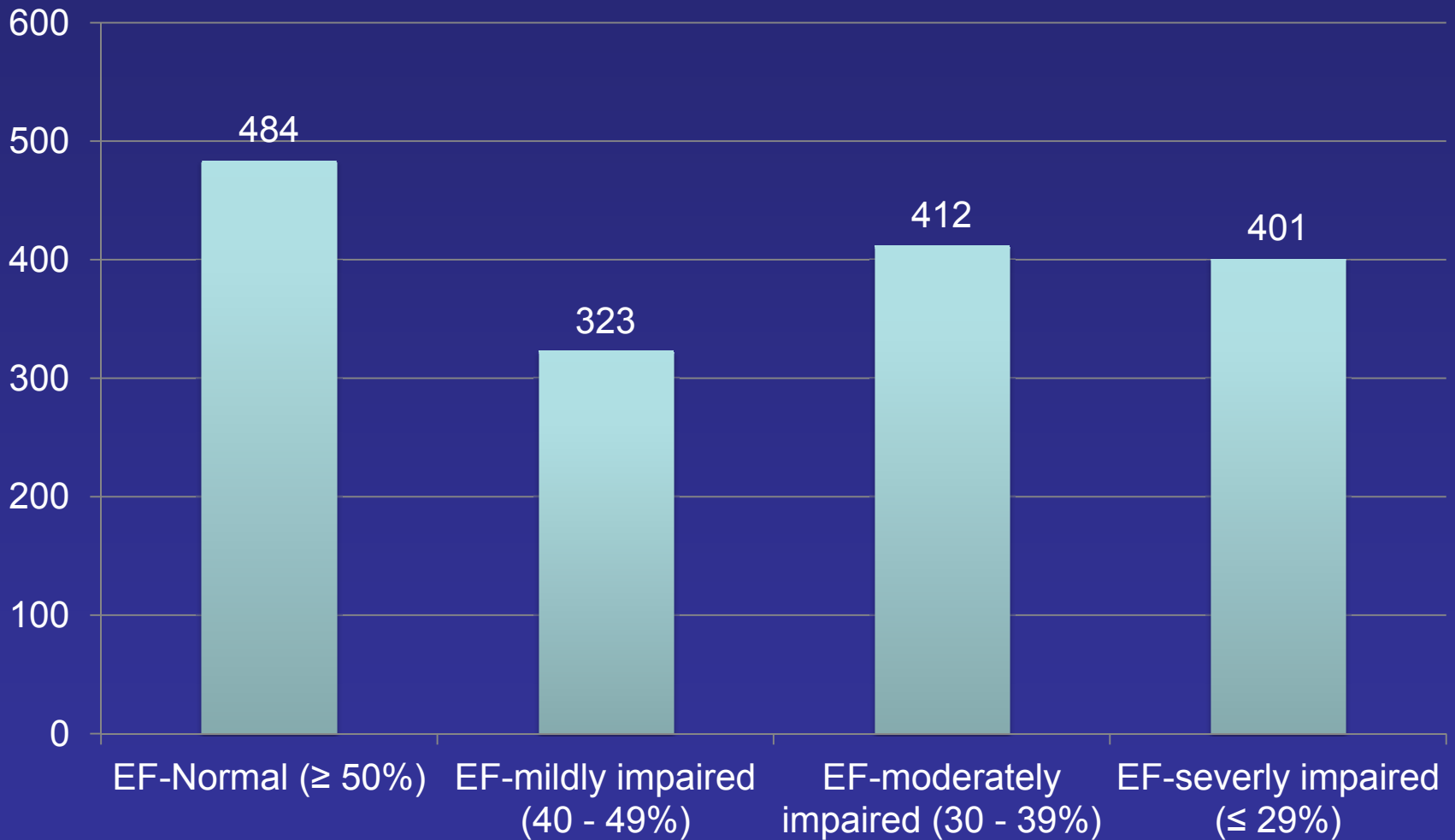
Background and Aims

- Contemporary heart failure (HF) therapies have not resulted in improved outcome among HF patients with preserved left ventricular ejection function (LVEF).
- We sought to evaluate the differential effect of LVEF on long term (4-year) mortality following hospitalization for acute HF patients in a real world setting.

Heart Failure Survey in ISrael (HFSIS)

- Conducted on 3-4/2003
- Internal medicine and cardiology departments.
- Included all hospitalized HF patients (n=4102)
- HF as primary diagnosis (n=2212)
- Among whom available EF data (n=1620, 63%)

Patient Distribution By LVEF Category



Baseline Characteristics

	Preserved	Mildly Reduced	Moderately Reduced	Severely Reduced
Age, years, mean	76	73	73	73*
Women	63%	44%	33%	27%*
Hypertension	82%	75%	68%	59%*
Obesity	31%	26%	21%	17%*
Diabetes Mellitus	40%	46%	49%	47%*
NYHA Class III-IV	41%	38%	24%	58%*
Ischemic Etiology	51%	79%	89%	82%*

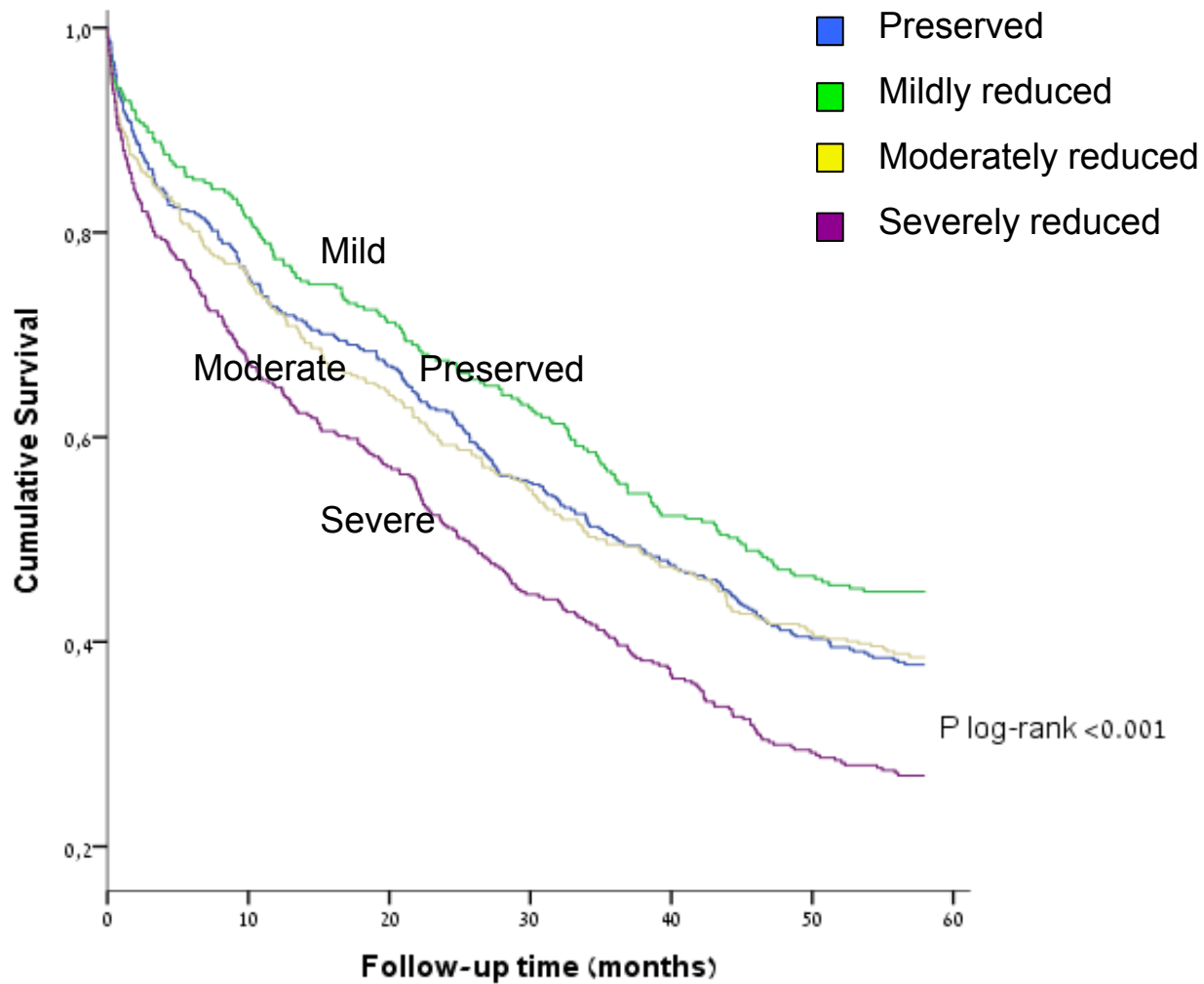
* P-value < 0.05

Multivariate-adjusted Cox Proportional-Hazards Model for 4-Year All-Cause Mortality*

Variable	Hazard Ratio	P-Value
Mildly reduced LVEF vs. Preserved LVEF	0.92	0.41
Moderately LVEF vs. Preserved LVEF	1.01	0.90
Severely LVEF vs. Preserved LVEF	1.20	0.04

Model adjusted for age, gender, DM, SBP, NYHA class, Hb, Na and GFR

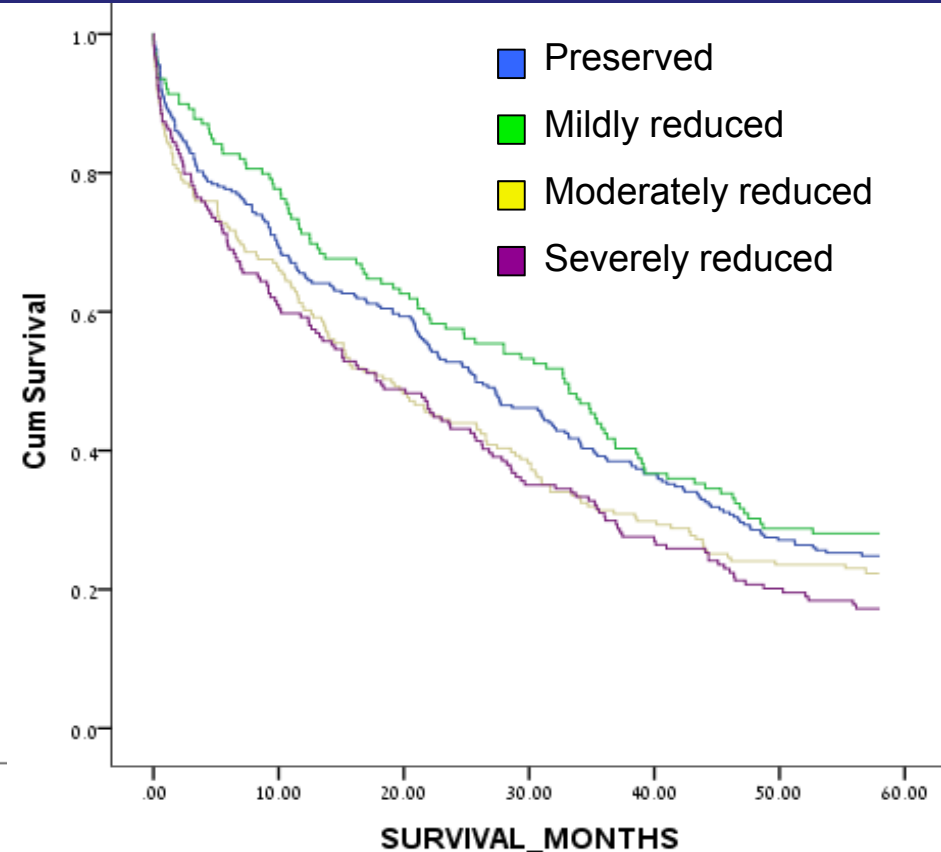
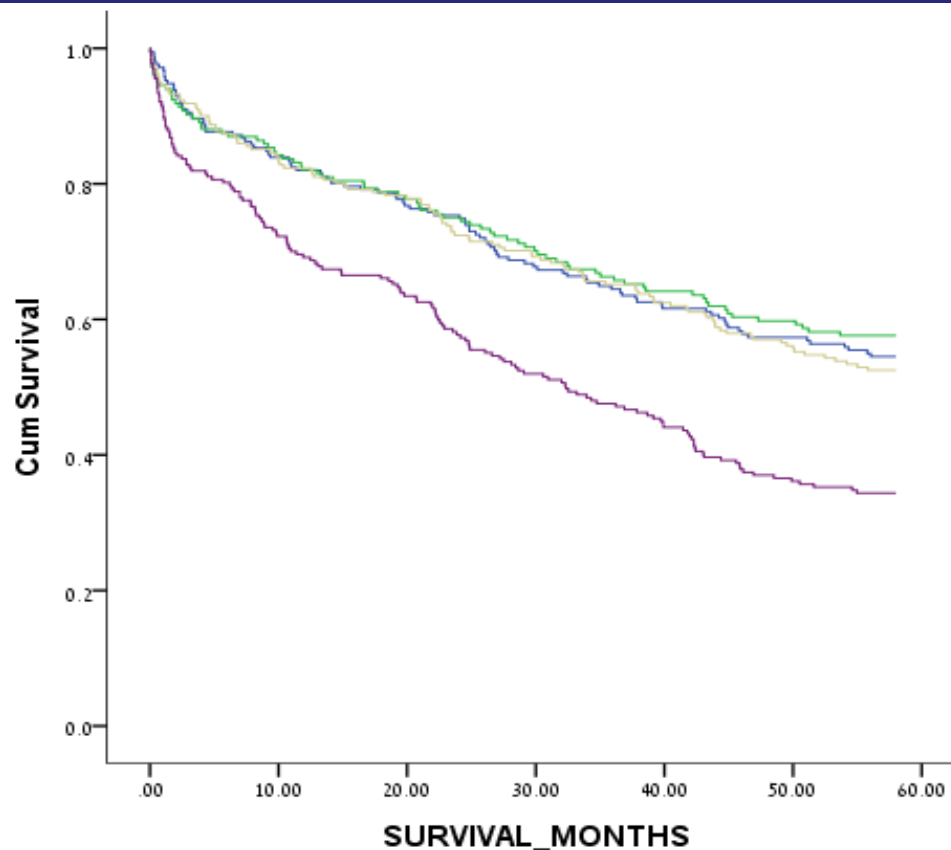




Cumulative Survival by Age

≤ 75

> 75



p-value for age-by-LVEF interaction = 0.03



Conclusions

- Patients hospitalized for HF who have preserved LVEF experience similar long-term mortality as patients with mild or moderate reductions in LVEF
- Severely reduced LVEF remains an independent predictor of long-term mortality in this population.
- The differential effect of LVEF on long-term mortality is significantly attenuated in the older age-group.