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## **Differences between Jews and Arabs Sustaining an Acute Myocardial Infarction during 2009-2010: Results from the HYMC Database**

Simcha Meisel, Michael Shochat, Mark Kazatsker, Lubov Vasilenko, Elena Noiman, Yaniv Levy, Tatiana Sigalov, Aaron Avraham Shotan Frimerman, Aya Asif, David S Blondheim,

Heart Institute, Hillel Yaffe Medical Center, Hadera, Israel

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# Background

A third of patients admitted to our coronary care unit for acute myocardial infarction (AMI) are Arabs who differ from the Jewish patients in incidence of risk factors, clinical characteristics and seemingly also in outcome.

## Patients

Among 627 patients admitted to the CCU for AMI during 2009-2010, 215 (35%) were Arab (57±12 years, median-54, 88% men) and 412 were Jewish (63±13 years, median-62, 77% men, both  $p < 0.001$ ).

# Results

Incidence of smoking, diabetes, hyperlipidemia, and hypertension among Arab patients was 53%, 47%, 70%, and 57% compared to 33%, 40%, 70%, and 66% among Jewish patients ( $p < 0.001$ ,  $p = \text{NS}$ ,  $p = \text{NS}$ , and  $p < 0.05$ , respectively).

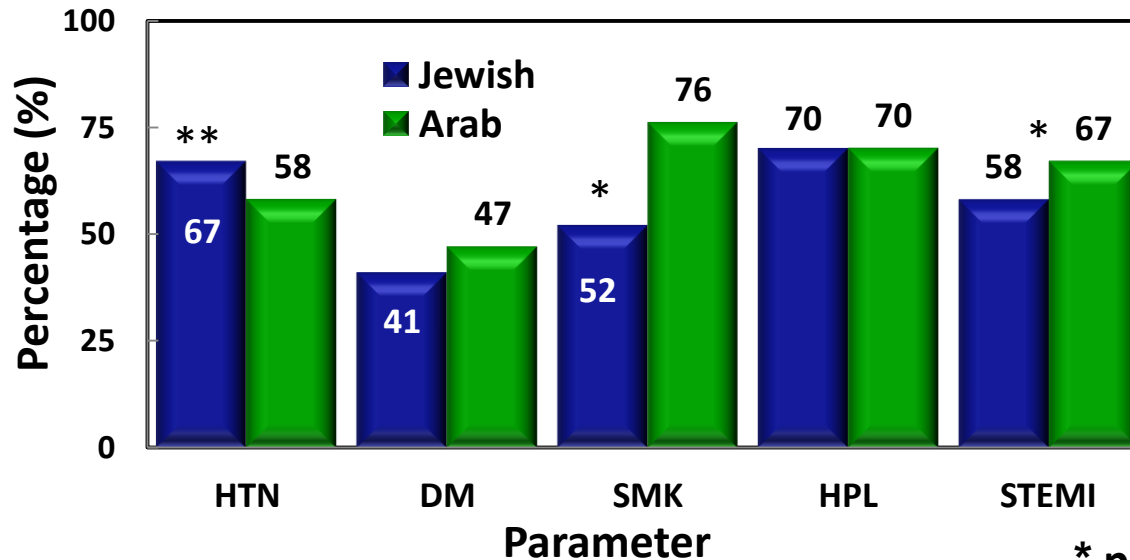
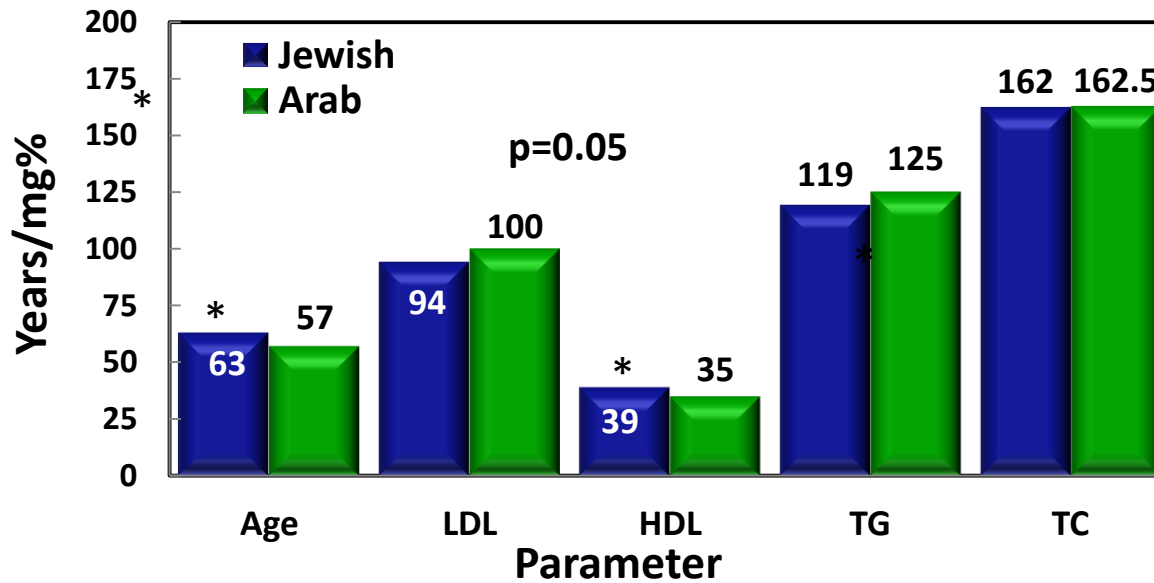
Symptom-onset to admission and door-to-balloon time intervals were similar between groups. STEMI occurred in 67% of the Arab patients compared to 58% in Jewish patients ( $p < 0.01$ ).

Admission systolic blood pressure was slightly lower ( $p < 0.013$ ) and glucose levels higher ( $p < 0.003$ ) in Arabs.

Total cholesterol, triglycerides, and LDL levels were similar whereas HDL was significantly lower in Arab patients ( $p < 0.0001$ ).

Pre-admission Statin therapy was more prevalent among the Jewish compared with the Arab population (51% vs. 36%,  $p < 0.001$ ).

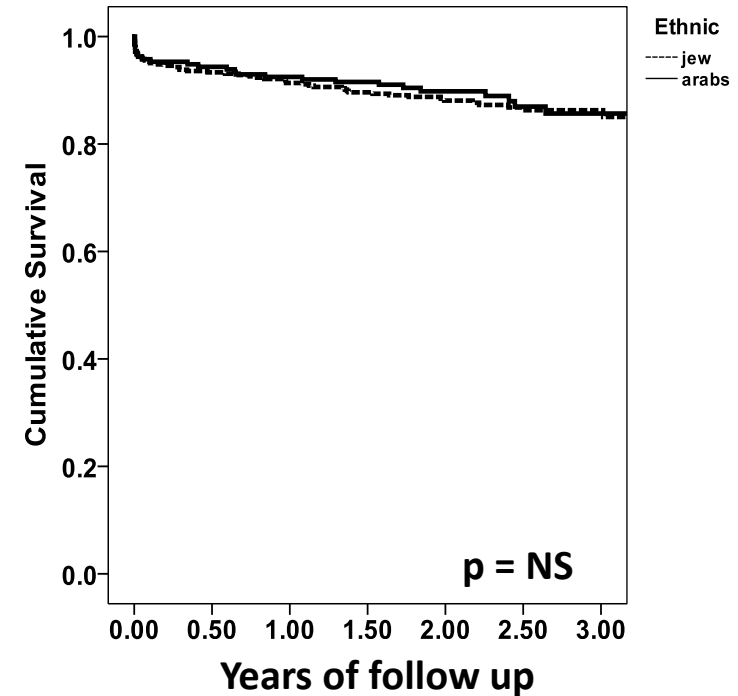
# Demographics and risk factors by ethnicity



\* p<0.001, \*\* p<0.05

# Multivariable logistic regression analysis

Variable	OR (95% Confidence interval (CI): upper to lower)	p-value
Age	1.1 (95% CI: 1.04 to 1.13)	< 0.0001
Gender	1.87 (95% CI: 0.74 to 4.7)	0.18
Diabetes mellitus	1.24(95% CI: 0.57 to 2.7)	0.59
Hypertension	1.05 (95% CI: 0.46 to 2.4)	0.56
Smoking	1.47 (95% CI: 0.64 to 3.37)	0.36
Ethnicity	2.47 (95% CI: 1.09 to 5.65)	0.031
Triglyceride level	1.02 (95% CI: 0.99 to 1.01)	0.05
LDL concentration	0.99 (95% CI: 0.98 to 1.0)	0.14
HDL concentration	0.98 (95% CI: 0.94 to 1.01)	0.2
LVEF	0.93 (95% CI: 0.91 to 0.96)	<0.0001



**Kaplan-Maier survival curves by ethnicity**

# Conclusion

There are differences between Arab and Jewish AMI patient populations which may have implications for prevention and therapy.

After adjusting for age, LVEF, atherosclerosis risk factors, lipid profile, and time to coronary care unit admission, overall mortality at 26-months follow-up was higher among Arab patients (HR: 2.47, 95% CI: 1.09-5.65,  $p < 0.03$ ).