CHARACTERIZATION OF ST-ELEVATION MYOCARDIAL INFARCTION ACROSS THE AGE SPECTRUM IN A LOW-INCOME URBAN COMMUNITY: CLINICAL FEATURES, ACUTE CARE, AND LONG-TERM OUTCOMES

Poster Contributions
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Background: Ethnic disparities in cardiovascular disease (CVD) are a major concern. Disadvantaged minorities have earlier onset, higher prevalence, and greater severity of CVD risk factors, but the implications of such factors for the age distribution, care, and long-term outcomes of contemporary ST-elevation myocardial infarction (STEMI) are not well delineated.

Methods: We assembled a prospective registry of patients with acute STEMI evaluated for primary coronary intervention at Montefiore Medical Center (MMC) (2008-12). Additional details, including data on rehospitalizations and deaths, were obtained through electronic query of MMC medical records. MMC is the principal provider for the 1.4 million residents of the Bronx, NY.

Results: We divided the cohort (n=771; age 59; 31% women; 20% black, 42% Hispanic; socioeconomic score -2.4) into young (<45 yrs, n=89), middle-aged (45-64, n=428), and older (≥65, n=254) groups. There were more women, non-Hispanic whites, HTN, hyperlipidemia, and prior CVD across increasing age groups. By contrast, BMI, smoking, cocaine use, HIV+ status, and family history were higher in the younger age groups. In particular, among those <45 yrs, 64% were smokers, 17% used cocaine, and 7% were HIV+. In turn, 3-vessel disease and β-blockers were more common in older patients. During median follow-up of 3.8 yrs, incident events per 100 person-years for the 3 age groups were: death, 0.3, 1.8, and 5.9; and death or any readmission, 18.3, 23.4, and 32.3. Incidence rate ratios between younger and middle-aged groups were 0.02 and 0.78 for the 2 outcomes, respectively.

Conclusion: In this mostly black and Hispanic low-income community, STEMI affected a similar proportion of younger adults as in national registries, but herein we detail a high burden of smoking, cocaine use and HIV in this group as compared to their older counterparts. Although mortality was much lower for younger patients, readmission rates were more comparable to middle-aged patients. These findings highlight the consequences of adverse social habits for STEMI and its aftermath in inner-city younger adults, and call for increased prevention efforts in such settings.