1550173

Neighborhood Socioeconomic Status and Long-Term Stroke Incidence After Myocardial Infarction

Gerber, Y; Goldbourt, U; Benyamini, Y; Tanne, D; Drory, Y
Tel Aviv University, Tel Aviv, Israel

Background: Neighborhood socioeconomic status (SES) has been suggested to affect cardiovascular disease incidence and outcome over and above individual SES measures. However, data linking neighborhood SES to stroke risk after myocardial infarction (MI) are lacking. We examined long-term stroke incidence according to neighborhood SES in a cohort of patients hospitalized with a first acute MI.
Methods and Results: Consecutive patients aged 65 years or less discharged from 8 hospitals in central Israel after incident MI in 1992-3 were followed through 2005. Individual demographic, socioeconomic, and clinical data were obtained at study entry. Neighborhood SES was estimated through a composite census-derived index developed by the Israel Central Bureau of Statistics. During a median follow-up of 13.1 years, 200 incident strokes occurred in 1410 patients. Accounting for death as a competing risk, patients residing in disadvantaged neighborhoods had a higher stroke incidence (Figure). The age-, sex-, and origin-adjusted hazard ratio (HR) for stroke in the lower vs. upper neighborhood SES tertile was 2.07 (95% CI: 1.40-3.04, P < 0.001), and 1.56 (95% CI: 1.01-2.40, P = 0.045) after further adjustment for cardiovascular risk factors, comorbidity, MI characteristics, and individual SES measures.
Conclusions: Neighborhood SES is strongly associated with stroke risk after MI. The association is partly, but not entirely, attributable to individual SES measures and other potential confounders. Prevention efforts should be targeted toward MI patients residing in poor neighborhoods.