

Socioeconomic Status, Not Geography or Ethnicity,
Is Associated With Mortality After Acute Aortic Dissection in Jerusalem Emergency Departments

A Multicenter Retrospective Cohort Study

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BACKGROUND & OBJECTIVE	GEOGRAPHIC & SOCIOECONOMIC COMPARISON	INDEPENDENT PREDICTORS OF MORTALITY
- Jerusalem contains populations with a marked socioeconomic gradient. - Acute aortic dissection is a uniformly time-critical emergency. - We asked whether geography, ethnicity, or socioeconomic status were associated with emergency-care processes or mortality.	Jerusalem residents: 38 East vs 34 West Median SES cluster East 2 West 5 P = .004 EMERGENCY-CARE PROCESS Median time from ED arrival: Triage 15.0 min · First vital signs 18.1 min ECG 16.4 min · First blood draw 39.0 min CT 75.5 min · ED length of stay 233.7 min Surgical incision 321.0 min (among operated patients) No measured ED process interval differed between East and West Jerusalem residents (all P ≥ .34). MORTALITY BY DISSECTION TYPE Type A 58.2% Type B 24.0% P = .005 OUTCOMES In-hospital mortality 34.8% (32/92) Overall mortality 48.9% (45/92) ICU admission 76.1% (70/92) Median total hospitalization 8.55 days	Multivariable logistic regression (n=61; 29 deaths) Type A vs B dissectionaOR 22.30 95% CI2.45–203.16P=.006 Absence of known aortic aneurysmaOR 22.70 95% CI2.16–238.73P=.009 Higher socioeconomic cluster aOR 1.70 / cluster 95% CI1.15–2.52P=.008 Age aOR 1.072 / year 95% CI1.013–1.135P=.016 EAST vs WEST: MORTALITY 42.1% East vs 61.8% West P = .096 — not statistically significant ETHNICITY Mortality did not differ significantly by ethnicity: Jewish 50.8% · Muslim 39.1% · Other 75.0% P = .372 INTERPRETATION - Despite a pronounced socioeconomic gap, no measured ED process interval differed by residence. - Residence and ethnicity were not independent predictors of mortality. - The association between higher socioeconomic cluster and mortality was paradoxical and should be considered hypothesis-generating. - The authors discuss possible survivorship/collider bias, ecological measurement, and residual confounding as explanations. KEY MESSAGE Emergency-care processes and adjusted mortality did not differ by residence or ethnicity, despite a substantial socioeconomic gradient.
CONCLUSIONS		
Among patients with acute aortic dissection presenting to Jerusalem emergency departments, mortality approached 50% and was driven primarily by dissection type and age. Emergency-care processes and adjusted mortality did not differ by residence or ethnicity. The paradoxical association between higher socioeconomic cluster and mortality should be interpreted cautiously and tested in larger population-linked datasets that capture out-of-hospital deaths.		
LIMITATIONS	ETHICS & FUNDING	
- Retrospective design and incomplete documentation of some process intervals. - Small sample for multivariable modeling; wide confidence intervals and potential overfitting. - Prehospital/out-of-hospital deaths were not captured. - Socioeconomic status was an area-level, not individual-level, measure. - Findings are hypothesis-generating and not population-level estimates.	Ethics: approved by the Shaare Zedek Medical Center Helsinki committee (SZMC-0169-24) and corresponding Hadassah committees; informed consent was waived for the retrospective deidentified study. Funding: no specific grant. Conflicts of interest: none declared.	