

Abstract

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Mortality and apolipoprotein E in African-American, and White elders: an attempted replication.

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OBJECTIVE: We have tried, with only partial success, to confirm findings in a recently reported study in this journal on the relationship of APOE genotype to mortality in community representative Hispanics (n = 659), Whites (n = 272), and African-Americans (n = 450), aged 65 and over, living in Northern Manhattan, New York.

METHODS AND RESULTS: That study found that using proportional hazards models adjusted for sex and lipid levels, Hispanics and Whites with the E2/E3 genotype, but not African-Americans, had the lowest mortality risk. Those under age 75 had risks comparable to those over age 75, suggesting minimal survivor bias. Nearly 50% of the mortality risk associated with the APOE genotype appeared to act through heart disease, diabetes, and stroke. The current study of African-Americans (n = 1,083) and Whites (n = 915) aged 71 and over living in the more rural Southeastern US, found no protective effect of the E2/E3 genotype for either African-Americans or Whites. Among younger Whites (age 71-75), point estimates suggested that the E2/E3 genotype might be protective, but at a nonsignificant level; self-reported African-American race, but not genotype, was a risk factor for mortality in this age group. Neither lipid level nor health condition attenuated the effect of APOE genotype.

CONCLUSION: Differences in findings may reflect issues of sampling, age, the relative distribution of the APOE alleles, or some other factor. Until such time as studies use truly representative samples and include younger ages, findings in this area must be treated with caution.

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