Younger siblings, C-reactive protein, and risk of age-related macular degeneration

---

Abstrak

In this study, we examined the relationship between exposure to siblings and 1) the risk of age-related macular degeneration (AMD) and 2) C-reactive protein levels. We retrospectively analyzed pooled cross-sectional data from 2 studies: the Cardiovascular Health and Age-Related Maculopathy Study (2001-2002) and the Age-Related Maculopathy Statin Study (2004-2006). Associations between number of siblings and AMD were assessed by using multinomial logistic regression. Associations between number of siblings and C-reactive protein levels were examined by using a generalized linear model for γ distribution. A higher number of younger siblings was associated with significantly lower odds of early AMD in those with a family history of AMD (odds ratio = 0.2, 95% confidence interval: 0.1, 0.8) (P = 0.022) but was unrelated to AMD for those who had no family history of the disease (odds ratio = 1.0, 95% confidence interval: 0.9, 1.2) (P = 0.874). A higher number of younger siblings correlated with lower C-reactive protein levels (β = -0.19, 95% confidence interval: -0.38, -0.01) (P = 0.036). This supports the theory that immune modulation contributes to AMD pathogenesis and suggests that exposure to younger siblings might be protective when there is a family history of AMD.