

Abstract

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The Association of Cataract With Leukocyte Telomere Length in Older Adults: Defining a New Marker of Aging.

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OBJECTIVE: Lens transparency, or the magnitude of cataract severity, is a potential in vivo marker of aging distinguishable from diagnosed cataract. To explore lens transparency as a marker of aging, we determined its association with leukocyte telomere length (LTL) measured with quantitative polymerase chain reaction.

METHODS: Cataract severity was directly measured in 259 participants, and prevalent cataract and incident cataract surgery were ascertained in 2,750 participants of the Health, Aging, and Body Composition Study.

RESULTS: LTL was unassociated with clinical cataract outcomes. Six of 259 had successfully aged lenses and a mean LTL of 5,700 bp, whereas 253/259 with poorly aged lenses had a mean LTL of 4,770 bp. Participants with a 1,000 bp greater mean LTL had nearly half the odds of any cataract (odds ratio = 0.47, 95% confidence interval 0.22-1.02) after adjustment.

CONCLUSION: Lens transparency might be associated with longer LTL in community-dwelling older adults and should be investigated further as a possible biomarker of aging.

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