ASSOCIATION BETWEEN PREVIOUS CATARACT SURGERY AND AGE-RELATED MACULAR DEGENERATION

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Purpose: To assess the association between age-related macular degeneration (AMD) and previous cataract surgery.

Methods: We studied 17,947 randomly selected participants from the Korea National Health and Nutrition Examination Survey who were aged ≥40 years and underwent additional ophthalmologic examinations by the Korean Ophthalmologic Society between 2008‒2012. Early and late AMD diagnosis using digital fundus images, and graded according to the International Age-related Maculopathy Epidemiological Study Group guidelines. The associations between previous cataract surgery and early/late AMD were identified using multivariate logistic regression analysis of data from right or left eyes. Clustered multivariate logistic regression analysis was performed using both eyes to assess inter-eye correlation in same subject. Results: By univariate logistic regression, both early and late AMD prevalence were higher in subjects with pseudophakia/aphakia compared to subjects with cataract as a reference group, or subjects with phakic eye (including clear lens) as a reference group using right eye only, left eye only, or both eyes. In univariate logistic regression, both early and late AMD prevalence were higher in eyes with cataract or pseudo/aphakia compared to eyes with clear lens using the right eye, the left eye, or both eyes. However, after adjusting for age with multivariate logistic regression, all statistically significant differences in AMD prevalence among subgroups disappeared. Conclusions: We found no association between the previous cataract surgery and increased early/late AMD risk in our representative large national patient database. This suggests that increasing age, and not cataract surgery history, is predictive of AMD risk.