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A Population-based Study on the Prevalence and Associated Factors of Age-related Macular Degeneration in Northern Iran the Gilan Eye Study.

Behboudi H(1), Nikkiah H(2)(3), Alizadeh Y(1), Katibeh M(4)(5), Pakbin M(6)(7), Ahmadi H(2), Sabbaghi H(2)(8), Nourinia R(9), Karimi S(2)(3), Behnaz N(2), Piryaiee G(2), Yaseri M(10), Kheiri B(2), Moradian S(2).

Author information: (1)Department of Ophthalmology, Guilan University of Medical Sciences, Rasht, Iran. (2)Ophthalmic Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran. (3)Department of Ophthalmology, Torfeh Eye Hospital, Shahid Beheshti University of Medical Sciences, Tehran, Iran. (4)Ophthalmic Epidemiology Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran. (5)Center for Global Health, Department of Public Health, Aarhus University, Aarhus, Denmark. (6)Noor Research Center for Ophthalmic Epidemiology, Noor Eye Hospital, Tehran, Iran. (7)Translational Ophthalmology Research Center, Tehran University of Medical Sciences, Tehran, Iran. (8)Department of Optometry, School of Rehabilitation, Shahid Beheshti University of Medical Sciences, Tehran, Iran. (9)Ocular Tissue Engineering Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran. (10)Department of Epidemiology and Biostatistics, Tehran University of Medical Sciences, Tehran, Iran.

Purpose: To estimate the prevalence and associated factors of AMD in an Iranian population in 2014. Methods: In this population-based cross-sectional study, a total of 2975 Iranian residents (age: ≥ 50 years) from the urban and rural areas of Gilan province were included. The prevalence of different grades of AMD was determined using the International Age-Related Maculopathy Epidemiological Study Group grading system. Results: Of 2975 eligible individuals, 2587 (87.0%) subjects participated and 2275 (76.5%) subjects (62.6 ± 8.8 years old) had gradable fundus photographs. Age- and sex-standardized prevalence of early and late AMD based on the 2016 Iran census were 13.2% (95% confidence interval [CI], 10.6-16.2) and 0.7% (95% CI, 0.4-1.3), respectively. In multivariate analysis, each decade increase in age was associated with the adjusted odds of any (adjusted odds ratio [AOR] = 1.31, 95% CI, 1.09-1.56; $P = .0031$), early (AOR = 1.27, 95% CI, 1.06-1.53; $P = .012$) and late AMD (AOR = 2.39, 95% CI, 1.08-5.28; $P = .031$). Hyperopia was identified to be less frequent in late AMD (AOR = 0.20, 95% CI, 0.04-0.80; $P = .024$). No significant association was found between AMD and sex, smoking, outdoor working, diabetes, hypertension, pseudophakia, hyperlipidemia and myopia. Conclusion: Gilan Eye Study demonstrated the first estimate of age-specific AMD prevalence in Iran being compatible with other WHO regions. With the expected increase in the life expectancy and aging of Iranians, the number of people affected by AMD will be increasing in future. Healthcare policy makers should be advised to provide more efficient eye care services and preventive strategies in this regard.

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