

00150 **Prevalence, Risk Factors and Impact of Myopic Macular Degeneration on Visual Impairment and Functioning Among Adults in Singapore**

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Aims: To determine the prevalence, risk factors, and impact of myopic macular degeneration (MMD) on visual impairment and functioning among adults in Singapore.

Methodology: A comprehensive eye examination, including subjective refraction, axial length and visual acuity (VA) measurements were performed in adults aged ≥ 40 years in the Singapore Epidemiology of Eye Diseases (SEED) study. From fundus photographs, MMD was graded using the International META-PM classification. Vision-specific functioning (VSF) was assessed with a validated visual-functioning questionnaire (VF-11) using Rasch analysis.

Result: A total of 8,716 subjects were included in this analysis. The mean age (\pm SD) was 57.2 ± 9.5 years (33.5% Malays, 33.2% Indians and 33.3% Chinese). The prevalence of myopia (spherical equivalent [SE] ≤ -0.5 diopters [D]) and high myopia (SE ≤ -5.0 D) was 35.7% and 6.0%, respectively. The age-standardized prevalence of MMD was 3.8% (95% confidence interval [CI], 3.4-4.3%). The prevalence of MMD was 7.7% among low to moderate myopes, and 28.7% among high myopes. The prevalence of MMD increased non-linearly with SE and age. MMD was associated with older age, more myopic SE, and lower education. Subjects with Meta-PM categories 3 or 4 in the betterseeing eye had worse best-corrected VA (β , 0.19; 95% CI, 0.16-0.23) and poorer VSF (β , -9.7; 95% CI, -17.6- -1.8) than those without MMD after multivariate adjustments.

Conclusion: Approximately one in 26 adults in Singapore has MMD. Older age and myopic SE are major risk factors of MMD. Severe MMD has a substantial impact on visual impairment and functioning.