

COMMUNITY-BASED STUDY ON PREVALENCE AND CAUSES OF VISUAL IMPAIRMENT AMONG THE ELDERLY IN TAIPEI AND MATSU

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Purpose: This study was conducted to investigate and compare the prevalence and causes of visual impairment of the elderly people in the urban (Taipei) and rural (Matsu) areas.

Methods: People of the age of 65 or older were enrolled for interviews and ophthalmic examinations in a visual health care survey in Taipei and Matsu. The clinical examination included visual acuity testing, slit-lamp and dilated retinal examination for those with a visual acuity worse than 6/12. Visual impairment was defined as a best-corrected acuity in the better-seeing eye worse than 6/12.

Results: Samples of 572 (367 residents in Taipei, and 205 residents in Matsu) elderly people were included. The proportion of overall bilateral presenting acuity worse than 6/12 was 19.2% (8.0% in Taipei and 39.1% in Matsu, $p < 0.0001$). We estimated the proportion of visual impairment among the elderly in Taiwan was 2.80% (1.91% in Taipei and 4.39% in Matsu, $p < 0.0001$). Cataract-related disease was the most frequent factor (70.5%) associated to visual impairment, retinopathy-related disease with/without macular edema the second (40.9%). There was no significant difference in the distribution of factors associated to visual impairment between Taipei and Matsu. Multiple logistic regression revealed that retinopathy with/without macular edema was the most significant associated factor correlated with the visual impairment among the elderly (OR=25.02, 95%CI: 4.32-145.01).

Conclusions: Although cataract was the most frequent factor in visual impairment, we found retinopathy with/without macular edema was the most significantly associated factor related to visual impairment for the elderly people

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