PREVALENCE OF STRABISMUS AND ITS RISK FACTORS IN SCHOOL CHILDREN: THE HONG KONG CHILDREN EYE STUDY

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METHOD AND PARTICIPANTS

A total of 4273 school-children aged 6-8 years old among 571 primary school participated in the study, out of 5000 subjects whom were invited according to the randomized sampling frame during March 2015 to December 2017. Participants had undergone comprehensive ophthalmological examinations and detailed questionnaires. Ocular examinations were conducted by ophthalmologists. Ocular alignments were defined upon unilateral & alternate cover tests and prism test. Detailed questionnaires on family history of ocular diseases and various living habits were surveyed.

INTRODUCTION

Strabismus is an important cause of amblyopia and visual impairment in school children.

AIM

This population based study serves as an indicator for implementing healthcare policies and to identify high risk populations

RESULTS

Prevalence of strabismus among school children in Hong Kong is 3.11% (Figure 1)
Among types of strabismus, exotropia outnumbered esotropia by 9.42:1 (Figure 2)
Upon multivariate analysis,
Ocular risk factors: strabismus with myopia (≤−1.00D), hyperopia (≥+2.00D), astigmatism (≥+2.00D), and anisometropia.
Other non-ocular risk factors: maternal smoking during pregnancy, family history of strabismus and advanced maternal age at childbirth. (Figure 3)

CONCLUSION

Prevalence of strabismus among schoolchildren in HK aged 6-8 years old is high, compared with other countries. With exotropia being the most prevalent type, the high prevalence of myopia in this locality plays a role. Maternal smoking and refractive errors become the major concerns in preventing strabismus.

REFERENCES