

Public education and ophthalmic research

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A large proportion of patients seen in the ophthalmic clinics suffer from chronic ocular conditions such as glaucoma, diabetic retinopathy and age-related macular degeneration. To empower patients to improve their health outcomes, patient education is essential. Ophthalmologists should provide general and specific eye care knowledge to patients, their relatives and the public. Over the past few years, the College of Ophthalmologists of Hong Kong (COHK) and the Hong Kong Ophthalmological Society (HKOS) have been jointly organizing various public educational events to increase local awareness about a variety of common and important eye diseases. Volunteer ophthalmologists have given public lectures on primary and secondary prevention of eye diseases and recent advances in treatment. Media coverage of these events has also been very useful in promoting the importance of maintaining good eye health within the community. Moreover, members of the public attending these events were also offered free eye screening (such as visual acuity measurement, intraocular pressure assessment, slit-lamp examination and Amsler chart evaluation). Subjects with potential eye diseases can then be promptly referred to ophthalmic clinics for further evaluation. Owing to the aging population of our society, the incidence of major preventable eye diseases such as diabetic retinopathy, age-related macular degeneration and glaucoma will certainly increase in the near future. It is well known that many diabetic patients do not follow recommended guidelines for regular eye examinations and blindness from diabetic retinopathy is still quite common.¹ Ophthalmologists can play an important role in educating and motivating

patients and their carers to prevent the development and progression of eye diseases.

In addition to educating the Hong Kong public and raising the awareness of various eye diseases, education events can also provide an excellent opportunity for ophthalmic epidemiological research. Cross-sectional epidemiological data can be collected within a short period of time and the findings could be highly relevant both locally and internationally. For example, a public education event on myopia with dilated fundus examination in highly myopic patients has generated useful data on the prevalence and risk factors of posterior and peripheral retinal lesions among high myopes in Hong Kong.² The main advantage of performing epidemiological studies at the time of public education events is that it can provide a community-based sample. Thus, sampling bias leading to over- or under-estimation of disease prevalence based on studies in referral-based tertiary eye centers can be minimized.

In this issue of the *Hong Kong Journal of Ophthalmology*, Lam et al³ report the results of a cross-sectional population-based study conducted during the "Dry Eye Day", the most recent public education event organized jointly by the COHK and HKOS in April 2011. Among various eye conditions seen by ophthalmologists, dry eye syndrome (DES) is probably one of the most frequently encountered. It has been estimated that around 10 to 20% of the adults in various communities have this syndrome. Moreover, its severity has been shown to be significantly correlated with

anxiety, depression and quality of life, and it is considered to be an important public health problem. It is therefore important for ophthalmologists to educate the public about this highly prevalent condition and how the discomfort caused by DES can be alleviated. With the support of volunteer ophthalmologists, nurses and medical students, over 230 subjects answered the Ocular Surface Disease Index (OSDI) questionnaire to evaluate the subjective symptoms caused by DES. Subjects with high OSDI scores were also recruited to undergo objective evaluation using the Schirmer's test. The results showed that the estimated

prevalence of DES in Hong Kong was around 7.7%. More interestingly, the data also showed that there is an inverse correlation between the daily duration of computer use and Schirmer's test score, which provides supporting evidence of an association between computer vision syndrome and DES. With the increasing use of computers and mobile devices such as smart phones and tablet computers in our information technology-driven society, further large-scale population-based studies to evaluate the impact of using various computer-based devices and the prevalence of DES are warranted.

References

- 1. Beck RW. The burgeoning public health impact of diabetes: the role of the ophthalmologist. Arch Ophthalmol. 2011;129:225-9.
- 2. Lai TY, Fan DS, Lai WW, Lam DS. Peripheral and posterior pole retinal lesions in association with high myopia: a cross-sectional community-based study in Hong Kong. Eye (Lond). 2008;22:209-13.
- 3. Lam DK, Wong VW, Chow VW, Chi SC. Epidemiology of dry eye syndrome in Hong Kong: a cross-sectional population-based study. Hong Kong J Ophthalmol. 2011;15:58-62.
- 4. Miljanović B, Dana R, Sullivan DA, Schaumberg DA. Impact of dry eye syndrome on vision-related quality of life. Am J Ophthalmol. 2007;143:409-15.
- 5. Li M, Gong L, Sun X, Chapin WJ. Anxiety and depression in patients with dry eye syndrome. Curr Eye Res. 2011;36:1-7