Is age a risk factor for diabetic retinopathy?

We read with interest the article by Namperumalsamy et al describing the prevalence of diabetic retinopathy and its associated risk factors in a South Indian community. The authors reported that older age (>50 years) was a significant risk factor for the prevalence of diabetic retinopathy. This finding has potential ramifications in view of the increasing proportion of older people worldwide, who are more likely to develop and require treatment for diabetes and its complications.

A review of the literature shows that the effect of age on the prevalence and severity of diabetic retinopathy is still unclear, and varies with the population being studied. In the United Kingdom Prospective Diabetic Study, Stratton et al reported that older age (>50 years) was a risk factor for progression of diabetic retinopathy (RR 2.1, 95% CI 1.5 to 2.7) but not for its incidence. We performed a review of patients with diabetic retinopathy in Singapore and found that patients aged 65 years and younger had a higher risk of pre-existing diabetic retinopathy at presentation (multivariate OR 2.2, p<0.001). Other studies have also identified younger age as a risk factor for diabetic retinopathy. The Wisconsin Epidemiological Study of Diabetic Retinopathy reported that severity of retinopathy was related to younger age at diagnosis. The same study found that the 10-year incidence of retinopathy, progression of retinopathy, and progression to proliferative retinopathy were highest in the group diagnosed before 30 years of age. A clinic-based cross-sectional study in Singapore reported that younger age was a risk factor for vision-threatening retinopathy (multivariate OR 0.97, p<0.001). We believe that the differences in the impact of age on diabetic retinopathy in various studies may be explained by confounders such as variations in genetic, environmental or lifestyle factors, and the type of patients screened (population-based vs clinic-based). Additional studies will be required to clarify the impact of age on diabetic retinopathy and its variation among different populations. This will enable clinicians to identify patients at risk of developing diabetic retinopathy early and target those with higher-risk profiles for closer follow-up. Nevertheless, we agree with the authors that more medical manpower and resources will be required to manage diabetic retinopathy in the years to come as the number of diabetics increases worldwide.

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Competing interests None.

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CORRECTION

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Lad EM, Nguyen TC, Morton JM, et al. Retinopathy of prematurity in the United States. Br J Ophthalmol 2008; 92: 520–5. Table 3 in this article original showed some data that should not have been shown. The authors have requested these data be replaced by asterisks, which has been done.