The ROYAL COLLEGE of
OPHTHALMOLOGISTS

CORRESPONDENCE

Comment on: How is the risk of being diagnosed with referable diabetic retinopathy affected by failure to attend diabetes eye screening appointments?

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To the Editor:

I enjoyed reading the article "How is the risk of being diagnosed with referable diabetic retinopathy affected by failure to attend diabetes eye screening appointments?" published in your esteemed journal, and I would like to make some considerations about it. The paper demonstrated that failure to attend multiple consecutive screening appointments is associated with an increased risk of referable retinopathy being diagnosed at the next screening appointment, and suggested that approaches to reduce the number of missed appointments may help to reduce the incidence of referable retinopathy [1].

The lack of ophthalmologists in remote areas and their uneven distribution throughout the territory of many countries makes it difficult to have a proper screening of diabetic retinopathy [2]. Most general practitioners do not master the technique of direct ophthalmoscopy to assess the presence of this disease [3].

The availability of ophthalmologists is insufficient to meet its demand in many areas, favoring the development of an automatic retinal image analysis system. In 2018, the Food and Drug Administration approved the first device that uses artificial intelligence to detect diabetic retinopathy, the iDx-DR, which uses a cloud-based algorithm that classifies diabetic retinopathy as absent, mild or advanced. The sensitivity and specificity for detecting diabetic retinopathy was 90.5 and 91.6% and 100 and 91.1% for severe diabetic retinopathy at risk of vision loss [4].

In this way, automated image detection programs can improve the screening and monitoring of patients with diabetic retinopathy. Despite the promise of these technological advances, there are important points in the validation of many algorithms, which are validated only in retrospective data. The validation of algorithms in different camera systems and various populations other than the database remains a challenge in this area of research. In ophthalmology, artificial intelligence has unlimited potential to perform numerous tasks faster and more efficiently than humans, such as data and information processing. On the other hand, they have limitations inherent to technology, such as the lack of perception of the social and psychological aspects of human nature that may eventually influence the diagnosis.

Compliance with ethical standards

Conflict of interest The author declares that he has no conflict of interest.

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