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Fundoscopy findings of diabetic and/or hipertensive patients

Achados de fundoscopia de pacientes diabéticos e/ou hipertensos

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Dear editor:

I would like to add some points as comments on the article Fundoscopy findings of diabetic and / or hypertensive patients [1] published in your journal.

The article shows that, in order to reduce the harmful effect of systemic arterial hypertension and diabetes, patients must be followed-up by the general practitioner, who should conduct annual eye examinations to enable the early diagnosis of these pathologies and help reducing costs to the public health system.[1]

The study comprised patients from a Basic Health Unit that mostly serves individuals with systemic arterial hypertension and diabetes treated in the public health system. However, the hierarchical organization of the Brazilian Unified Health System places Ophthalmology away from the entrance door of the system. Policies developed by the Ministry of Health place the ophthalmological service at secondary and tertiary complexity levels. Another reason for the difficulty in accessing ophthalmological care lies on the number of physicians working only in the private system, which reduces the medical assistance availability to many citizens who depend on the public health system.[2]

It is necessary investing in the qualification of general practitioners who work in Basic Health Units in order to improve the screening of hypertensive and diabetic patients with ophthalmological issues. It can be done through the development of teaching models focused on training these professionals to perform fundoscopy exams. [3]

Other alternatives lie on launching telemedicine centers to support professionals and on developing portable retinography devices with algorithms capable of helping health professionals to screen population's ophthalmological issues. Nowadays, software based on artificial intelligence use can identify different pathologies as accurately as specialists. These images can be rapidly classified by algorithms developed to analyze retinography images, which allow investigating and monitoring high prevalence diseases such as diabetic retinopathy. [4]

The first autonomous artificial intelligence system focused on screening diabetic retinopathy was developed in 2018. Algorithms associated with smartphone-use to diagnose ophthalmic diseases started being developed. [5]

Thus, the ophthalmological care and screening of diabetic and hypertensive patients treated in Basic Health Units can be improved by making training programs available to health professionals who work in these units, as well as by using the existing technology to enable the early diagnosis of these patients and to reduce costs of the public health system to treat patients' sequelae.

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