



## SCIENTIFIC LETTERS

### How frequently should asymptomatic patients be dilated? 20-year results



### ¿Con qué frecuencia debería dilatarse a los pacientes asintomáticos? Resultados de 20 años

Dear Editor,

This author previously reported the ten-year results of the efficacy of “routine” dilated fundus examination (DFE).<sup>1</sup> That ten-year review concluded that routine DFE was unwarranted for older, asymptomatic patients. The purpose of this correspondence is to provide an additional ten years of follow-up for the same group of patients.

Briefly, the initial reported categorized all patients who received DFE at a single facility in 1998 and were re-evaluated ten years later to determine the inherent risk of “missing” peripheral retina entities that were deemed clinically-significant – primarily lesions that could lead to choroidal melanoma (CM) or retinal detachment (RD). 68% of eligible patients were re-examined at ten years.

Patients who developed CM or RD during the same 10-year period (identified via ICD-9 codes) were cross referenced to the original cohort. This included four neoplasms and 30 retinal detachments. One CM was entirely asymptomatic at the time of discovery, but developed LP vision in the end. None of these 34 patients were detected because of routine DFE. Initial findings indicated that sequential DFE in the absence of patient symptoms was *ineffective* at discovering significant, peripheral retinal pathology. The limitations and advantage of this retrospective review were discussed in the original paper.

The original cohort was re-evaluated to determine if there were any updates to the original conclusion after 10 additional years of follow-up – or 20 years after the original retinal examination. Methodology duplicate to the original report was followed, and all surviving patients receiving DFE in 1998 were re-examined when possible. Of 374 surviving patients (23% of original cohort), DFE for 281 (or 75%) of the survivors was available for review.

206 of the 281 were found to have “unremarkable” DFE (no peripheral findings whatsoever), and another 75 were deemed to have peripheral—albeit clinically

insignificant—retinal findings (reticular changes, chorioretinal scars, pavingstone degeneration, etc.). Only three patients had clinically-significant peripheral retinal findings that could only be ascertained via DFE (one nevus and two long-standing, untreated, localized RDs). These 3 cases represent 1% of the surviving cohort.

ICD-9 and ICD 10 codes for all patients examined in the same facility during the identical time frame were searched to uncover the total number of ophthalmic neoplasms and RDs. A total of 5 choroidal melanomas and 37 RDs were uncovered for the second 10-year follow-up period (2008–2017). All but one of the patients was symptomatic. The outlier—a large-sized choroidal melanoma—was entirely asymptomatic and discovered via remote diabetic screening images. That patient underwent successful brachytherapy to reduce the tumor, but ultimately developed LP vision due to the associated optic neuropathy. He survives eight years after the initial discovery. Again, that none of these 42 patients was diagnosed because of routine DFE.

The inability to effectively recognize clinically-significant peripheral retinal findings through routine DFE, coupled with the possibility that incidental detection of *rare* peripheral pathology does little to alter the clinical course, it may be surmised that DFE need not be administered on a “routine” basis. Rather, patient symptoms are a more effective indicator for DFE. These 20-year data seem to indicate that the answer to the question posed in this review remains possibly “never.”

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### Reference

1. Varner P. How frequently should asymptomatic patients be dilated? *J Optom.* 2014;7:57–61.

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