Dear Sir,

We have read with interest the article titled «Treatment of ARMD: an unresolved matter» and would like to congratulate its authors, Dr. Flores-Moreno et al. We believe that the cost of treatment is important. But not the only unresolved matter because said successful treatments require us to maintain reinjections for years to avoid continuous relapses. An early detection of these relapses is quickly becoming an unresolved matter for clinicians.

On the basis of the daily observations that one of the main causes for the lack of quality of vision in ARMD patients is their inability to read, the objective of this study was a researching the efficacy of associating a Near Vision and Reading Optotype to the classic Amsler grid for the regular domestic control and early diagnosis of neovascular or wet Age Related Macular Degeneration (ARMD).

The plate designed for the study comprises on one side the various versions of the Amsler grid and on the other the near sight for reading scales with numerical and circles variants with oriented opening for use in culturally complex or extreme situations (fig. 1). Patients were instructed to use it weekly. In addition to carrying out the classical control of the grid (always in with the same near vision glasses, light and distance) they should establish and mark the smallest line they can read for each eye, with an immediate visit to the ophthalmologist if any of the tests shows a different result, such as variations in the grid (increase or decrease of the smallest line they can read) or the appearance of new lesions or areas of lower vision.

Fig. 1: «Double» domestic test with Amsler grid and Near vision optotype for early diagnostic of neovascular ARMD (courtesy of Pharma-Lepori Laboratories).
appearance of new scotoma or metamorphopsia) or an increased difficulty in reading the smallest line that was read in the previous test.

20 neovascular membrane high-risk patients (single eye with white drusen) were included in a retrospective study or patients with wet ARMD which had already been treated and inactivated with different treatment guidelines (intravitreous with bevacizumab, ranicizumab or triamcinolone, photodynamic therapy) but with a risk of relapse in their neovascular membrane. These patients had previously been instructed to perform the dual grid control and the maximum reading line and to ask for an appointment whenever a new neovascular membrane appeared (n = 6) or the previously in active membrane became active again (n = 14). In all cases, said activity was confirmed by OCT and angiography. In 70% of cases (n = 14) the only sign of alarm was a reduction in the reading scale of 25% (n = 4) with the patient perceiving the alteration in both tests (Amsler grid and near sight optotypes), and only in 5% (n = 2) the only altered sign was the grid. In all cases with worsened eyesight (far sight VA equal to or worse than 3/10) and 100% of previously treated neovascular ARMD cases, the only altered sign was a reduction in reading capacity and in none of the cases modifications in the Amsler grid. This proves the greater sensitivity of the reading test in comparison with the Amsler grid in early diagnosis.

Previous studies have demonstrated that even though the grid is the universally established self-diagnosis test since its description by the Swiss ophthalmologist Marc Amsler in 1953 up to now (1), its maximum efficiency or sensitivity in early diagnosis of ARMD varies between 40% and under 10% depending on the preciseness of its instructions for use and the intellectual level of patients (2,3). In addition to the lack of domestic compliance and the lack of interaction, which brings about a lack of control about the quality of the test, the physiopathological causes of the low efficiency in early diagnostic are: A) The «Filling-in phenomenon»), or the inability of the brain to ignore the scotoma (fig. 2). B) the inability to detect scotoma smaller than 6 degrees. C) the inability to maintain central fixation why the attention is maintained in the periphery, with the «Crowding phenomenon» of the peripheral lines. Said. Sensitivity is greater with the grid having the black background than the one having the white background (4) and could be increased up to five times with the inclusion of crossed polarized filters assembled on test mounts for visualizing the grid (5,6). It could also be increased up to 75% utilizing the new Preferential Hipercuacity Perimeter (PHP, Zeiss), but its high cost together with the necessity of using it within the hospital and the false positive rate exceeding 15% excluded as a valid alternative (7). The Macular Mapping Test, which can be used at home because it is freely accessible through the Internet, requires the cooperation of someone who is trained and with good visual acuity as well as an investment in time and considerable intellectual ability. This makes its universal use as an early diagnostic screening self test difficult (8,9).

The usefulness of including the near vision optotype for monitoring the development of macular pathology could possibly prove its usefulness for the domestic monitoring of other frequent and severe macular pathologies such as macular edema of diabetic or other origins such as uveitis we are there is no standard test established for the early diagnostic of their development (10). Considering the explosive increase of ARMD cases with the progressive ageing of the population pyramid, the difficulty of an early diagnosis of post-treatment relapses, the easy execution and great sensitivity of the test, we believe that monitoring with the near vision optotype should be included as an additional test among general public health measures carried out regularly in the population over 65, even without immediate ophthalmological risk factors and...
particularly if these risks exist (single eye with con-tralateral ARMD or white drusen).

We conclude that associating both tests (near vision Optotype/Amsler grid and reading) is much more sensitive for early diagnostic both in post-treatment monitoring as in early diagnostic of patients at risk of neovascular ARMD (drusen, ARMD in the contralateral eye, etc) who are only using the grid. The use of the near vision optotype does not involve extra time, is easier to understand and to carry out by elderly patients than the grid, requires them to use the prescribed near sight eyeglasses which they frequently forget when performing only the grid test (thus reducing even more its low sensitivity), and in addition it can be utilized with the patient’s usual special low vision aids (magnifiers, etc.) and does not require supplementary instructions. Monitoring neovascular ARMD requires the inclusion of the near vision reading optotype due to its high sensitivity, which is considerably superior to the classical Amsler grid.

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REFERENCES