Abstract 24

FUNDUS AUTOFLUORESCENCE IN EXTENSIVE MACULAR ATROPHY WITH PSEUDODRUSEN (EMAP) AND DIFFUSE TRICKLING GEOGRAPHIC ATROPHY (DTGA)

Oral

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Purpose:

To establish whether Extensive Macular Atrophy with Pseudodrusen (EMAP) has a specific shape pattern on blue-light autofluorescence (BAF) with respect to Diffuse Trickling Geographic Atrophy (DTGA) and non-DTGA secondary to age-related macular degeneration.

Methods:

We reviewed our prospectively maintained database to enroll patients with a diagnosis of EMAP, DTGA or non-DTGA and a minimum follow-up of 1 year. Atrophic areas and progression rates were calculated on BAF images (Spectralis HRA+OCT) using Region Finder tool. Circularity, roundness, and homogeneity were chosen as shape descriptors and extracted using ImageJ. Variables were compared between disease groups using Kruskal-Wallis test.

Results:

A total of 28 EMAP, 27 DTGA and 30 non-DTGA eyes were included in the analysis. Median follow-up time was around 3.5 years, not significantly different between groups. EMAP was characterized by a fast BCVA loss (0.14 logMAR/year) and atrophy expansion (1.04 mm/year) and by a low circularity, roundness, and homogeneity, albeit similar to DTGA. On the other hand, EMAP and non-DTGA significantly differed in terms of atrophy progression rate, circularity, roundness, and homogeneity.

Conclusions:

Our study found that EMAP and DTGA display very similar features on autofluorescence: the macular atrophic area has a fast progression, fringed borders, elongated shape, and a non-homogeneous fluorescent signal.