RETINA MÉDICA 08:30 | 10:45 SALA VEGA

Mesa: Vitor Ágoas, Margarida Queiróz, Carla Teixeira

09:54

CL61-CLINICAL FEATURES AND LONG-TERM PROGRESSION OF RETICULAR PSEUDODRUSEN IN AGE-RELATED MACULAR DEGENERATION: FINDINGS FROM A MULTI-CENTER COHORT

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Purpose: To determine whether reticular pseudodrusen (RPD) confer a long-term increased risk of progression to late age-related macular degeneration (AMD) in the second eye of patients with unilateral wet AMD.

Methods: Multicenter, prospective, longitudinal, observational, study with a cross-sectional analysis. Patients with wet AMD in one eye were recruited from 2 centers and included for evaluation of the risk of progression to late AMD in the second eye (study eye). A minimum follow-up of 5 years was required, unless progression to late AMD occurred first. Baseline retinal profile of patients was evaluated using multimodal retinal imaging, including fundus color photography (FCP), fundus auto-fluorescence (FAF), infra-red (IR), red-free (RF) and optical coherence tomography (OCT). Baseline images were graded by two separate centers for the presence or absence of RPD. Presence of RPD was considered when visible in at least one image mode. Baseline RPD profile and its impact in long-term AMD progression was evaluated.

Results: We recruited 88 patients (48 female) with a mean age of 75.57 ± 7.05 years and mean follow-up of 65.65 ± 20.90 months. All patients had performed FCP, RF and FAF but only 53.41% (n=47) had IR and OCT available The baseline prevalence of RPD on all patients was 58% (n=51). There was no statistically significant association of RPD presence with increased patient age (p=0.29). Most patients with RPD were women, comprising 30 of the total 51, although the difference was not statistically significant (p=0.39). The presence of RPD was more easily noted in IR (55.3% of cases), followed by FAF (53.4%), OCT (42.6%), RF (19.3%) and FCP (17.0%). After 5 years, 54.50% (n=48) of the study eyes progressed to late-stage AMD, after a mean time of 30.61 ± 20.35 months. Patients who presented with RPD progressed more rapidly to late-AMD than patients without RPD (29.28 and 33.64 months, respectively), although the difference was not statistically significant (p=0.38). Of the study eyes which progressed, 81.25% (n=39) developed CNV and 18.75% (n=9) geographic atrophy (GA). After correcting for age and gender, the presence of RPD was significantly associated with development of late-stage AMD (OR=2.55, p=0.04). The same trend was observed relating RPD presence and progression to neo-vascular AMD or geographic atrophy independently but, in these cases, the association did not reach statistical significance (OR=2.23, p=0.08 and OR=1.48, p=0.60; respectively).

Conclusion: A multimodal approach using IR, FAF and OCT is mandatory for detecting RPD, underdiagnosed with FCP. RPD are highly prevalent in the fellow eyes of patients with unilateral AMD. Presence of RPD in this high-risk subset of patients is associated with increased long-term risk of progression, highlighting the importance of comprehensive multimodal retinal imaging and careful monitoring of all at-risk patients.