TYPICAL EXUDATIVE AMD VS. RAP: CAN WE PREDICT THE NEOVASCULAR PHENOTYPE OF THE FELLOW EYE?

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PURPOSE: To assess and compare the incidence of neovascularization, neovascular phenotypes and fundus changes of fellow eyes of patients with unilateral typical exudative age-related macular degeneration (eAMD) and retinal angiomatic proliferation (RAP).

MATERIAL AND METHODS: Seventy-nine fellow eyes of patients with unilateral typical eAMD (Group 1, n=40) and RAP (Group 2, n=39) were included. Color fundus pictures of fellow eyes at the time of diagnosis of neovascularization in the first eye, were retrospectively analyzed. Classification was performed by a certified grader of the Coimbra Ophthalmology Reading Centre, using an innovative semiautomated software – RetmarkerAMD®. The diagnoses of AMD neovascular phenotypes were double-checked using multimodal retinal imaging. RESULTS: The incidence of neovascularization was 50% in group 1 and 38.5% in group 2, during a follow-up time of 88.83±25.72 months and 32.79±20.89 months, respectively. In spite of the shorter follow-up, time to conversion was significantly shorter in the RAP group (chi2=8.88; Prchi2=0.0029). The neovascular phenotype of the fellow eye was typical eAMD in 80%, Polypoid Choroidal Vasculopathy in 15% and RAP in 5% of patients in group 1 and it was RAP in 73.3% and typical eAMD in 26.7% of patients in group 2. Total number and area of drusen were significantly inferior in fellow eyes of RAP (p<0.05).

CONCLUSION: The risk of neovascularization is significantly higher in fellow eyes of RAP but the neovascular phenotype isn’t always RAP. We have also observed that total number and area of drusen are significantly inferior in fellow eyes of RAP.