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CAN ANTI-VEGF TREATMENT INFLUENCE CHOROIDAL THICKNESS? – A RETROSPECTIVE STUDY OF PATIENTS WITH EXUDATIVE AGE-RELATED MACULAR DEGENERATION

Oral

Moleiro A.F.*, Rodrigues R., Vilares--Morgado R., Falcão--Reis F., Carneiro Â., Falcão M.

São João University Hospital Center ~ Porto ~ Portugal

Purpose:

To evaluate choroidal thickness (CT) progression over time in patients with exudative age-related macular degeneration (AMD) and its relation with anti-VEGF treatment.

Methods:

Retrospective case series study of patients observed between January 2022 and April 2022 at Ophthalmology Department of our center diagnosed with bilateral exudative AMD (eAMD) or unilateral eAMD and intermediate AMD (iAMD) in contralateral eye with a minimum previous follow up of two years. Subfoveal CT was measured in both eyes using cross-sectional spectral domain optical coherence tomography images, obtained every year during follow-up period. Statistical analysis was performed to correlate CT variation with number of intravitreal injections. 66 eyes with eAMD and 20 eyes with iAMD from 43 patients (mean age, 81.15±6.10 years) followed during 7.15±2.65 years were included.

Results:

eAMD eyes were treated with 54.83 (range 6-100 injections) anti-VEGF intravitreal injections. CT of eyes with eAMD decreased 56.65±11.66 µm over the follow-up period (p<0.001) at a rate of 6.49 µm per year. CT of eyes with iAMD decreased 29.30±22.07 µm over the follow-up period (p>0.2) at a slower rate of 0.68 µm per year. In the subgroup of patients with unilateral eAMD and contralateral iAMD (n=20) CT changes were significantly different between the two eyes (p< 0.001). Number of intravitreal injections correlated inversely with CT in eyes with eAMD (r = -0.232; p<0.001).

Conclusions:

A significant thinning of choroid in eyes with eAMD and an inverse correlation with number of anti-VEGF injections was observed, suggesting the influence of prolonged anti-VEGF suppression on choroidal thickness decrease. Further studies with a higher number of eyes are needed to validate our results.