3 de Dezembro **08h30 | 10h00 – Sala 1**

Retina Médica | Medical Retina

Moderadores | Chairs: Bernardete Pessoa (CHUP), Fernanda Vaz (CHLO), Isabel Pires (CHUC)

CO 101

CHOROIDAL VASCULAR FEATURES IN CENTRAL SEROUS CHORIORETINOPATHY: WIDEFIELD MULTIMODAL ANALYSIS

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Purpose: To evaluate choroidal vascular features of patients with central serous chorioretinopathy (CSC) using widefield (WF) swept-source Optical Coherence Tomography (SS-OCT) and ultra-widefield (UWF) Indocyanine Green Angiography (ICGA).

Methods: Observational study with a prospective design conducted in patients with CSC. All cases underwent UWF ICGA using a confocal scanning laser ophthalmoscopy (SLO) device and WF SS-OCT. WF *en face* OCT images of the choroid and mid-late UWF ICGA images were created using Photoshop. The image analysis protocol comprised the analysis of choroidal vascular features in UWF ICGA (symmetric vortex veins territories; pachyvessels crossing watershed territories; choroidal vascular hyperpermeability (CVH) and intervortex anastomosis) and WF *en face* SS-OCT images (pachyvessels crossing watershed areas and intervortex anastomoses). Correlation between the variables of interest was performed using the Pearson correlation coefficient. Statistical significance was set as <0.05.

Results: A total of 23 eyes from 12 patients diagnosed with CSC were included in the analysis. Symmetry analysis in UWF ICGA showed asymmetric vortex vein territories in 16 eyes (70%). The most prevalent asymmetric territory was the inferior-nasal (10 eyes, 43%). Pachyvessels crossing choroidal watershed zones were present in 20 of eyes (87%) with a perfect agreement between UWF ICGA and *en face* UWF OCT (r = 1.0). Both horizontal and vertical watershed areas were crossed in 8 eyes (40%). Evaluation of intervortex anastomosis showed a higher prevalence when evaluated by *en face* WF OCT (26%, 6 eyes). A moderate correlation between asymmetric vortex vein territories and intervortex anastomoses was observed (r = 0.51). Mid-late CVH in ICGA was present in 19 cases (83%), among which 5 cases (26%) showed diffuse CVH. A moderate positive correlation (r = 0.53) was also observed between diffuse CVH and pachyvessels crossing both meridians.

Conclusion: WF *en face* SS-OCT can be used to detect non-invasively choroidal vascular anomalies in CSC. Pachyvessels crossing the horizontal and vertical meridians are moderately associated with diffuse CVH in ICGA, supporting its role as a non-invasive biomarker of choroidal venous insufficiency.

Keywords: Central Serous Chorioretinopathy; swept-source Optical Coherence Tomography; Indocyanine Green Angiography; Vortex veins