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CHOROIDAL THICKNESS IN HEALTHY EYES MEASURED BY ULTRA-WIDEFIELD OPTICAL COHERENCE TOMOGRAPHY.

Oral

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Purpose:

To analyse choroidal thickness in healthy eyes by Ultra-Widefield swept-source optical coherence tomography (UW-OCT).

Methods:

Cross-sectional study. Exclusion criteria were axial length (AL) > 26mm and previous ocular or systemic pathology. Posterior pole choroidal thickness (subfoveal, nasal, temporal, superior and inferior quadrants) was manually measured at 2000µ intervals along 23mm of B-scan images using Xephilio UW-OCT (Canon, Japan) by two masked observers.

Results:

Out of the total 150 eyes, 66,6% were women, mean age was 41,03 ±21,82 years-old (18-72), mean AL 24,09 ±1,11mm(22,56-25,82). Mean subfoveal choroidal thickness
303,33 ±80,195µm (172-474).
Female choroidal thickness was higher compared to men in subfoveal region and each quadrant ($p<0.05$). Strong positive lineal correlation was found between subfoveal choroidal thickness and the 4 quadrants at 2000µm, obtaining Pearson's r equal to 0.75 (nasal), 0.63 (temporal), 0.59 (superior) and 0.766 (inferior)($p<0.05$). No statistically differences were found regarding age nor AL . Intraclass correlation coefficient was 0.862 in subfoveal measure, 0.744 in nasal quadrant, 0.873 temporal, 0.813 superior and 0.838 inferior.

Conclusions:

Choroidal thickness in female patients was thicker than male patients. Subfoveal choroidal thickness was strong linearly correlated with choroidal thickness in the 4 quadrants, decreasing as it distanced from foveal region. To the best of our knowledge this is the first choroidal analysis made by UW-OCT in healthy eyes.