

PERIFOVEAL VASCULAR STRUCTURE IN DIABETIC PATIENTS WITHOUT DIABETIC RETINOPATHY USING OCT ANGIOGRAPHY (OCT-A).

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PURPOSE:

To evaluate optical coherence tomography angiography (OCTA) characteristics of macular vascular details in diabetic patients without retinopathy

METHODS:

Prospective analysis comprising 11 eyes from 6 patients without retinopathy. We analyzed the following clinical parameters: diabetes duration (months), treatment and HbA1C (%). Mean visual acuity was 0,7. The OCT-A images and corresponding OCT B-scan were assessed. Measurements included central macular thickness (CMT), superficial (sFAZ) and deep (dFAZ) foveal avascular zone (FAZ) area using 3x3 and 6x6 protocol. We also measure the choroidal thickness (7 subfoveal measurements with 500 microns width-apart). We have use the non parametric test: Wilcoxon to do the statistical analysis.

RESULTS

Mean age was 64±11,36, 2 were females and 4 males. HbA1c mean was 7,1 with a range 5,9-9,9 and with a mean of 27,7 months after diabetes diagnosis. All patients were treated with metformina. Central macular thickness mean was 253,363±8,8, sFAZ6x6 mean was 369,22±155,5 and deep 476,23±243,6 and higher on FAZ3x3 (501,99±218,83), the difference was statistically significant (0,0273). Regarding sFAZ (dFAZ) was 369,22±155,5 on 6X6 protocol and 316,42±104,6 on 3X3 protocol and is was different statistically.

	6X6	3X3	
SUPERFICIAL PLEXUS	369,22±155,5	316,42±104,6	0,0137
DEEP PLEXUS	476,23±243,6	501,99±218,83	0,0273
	0,0645	0,0039	

Conclusions: OCT-A was useful to evaluate the vascularity of superficial and deep capillary plexus. The area of the dFAZ was enlarged when we compared with sFAZ in both 6x6 and 3x3 maps but the difference was only significant on 6X6 plexus. Further studies about FAZ area and VA correlations during the natural course of diabetic vascular disease are needed to increase the knowledge about this pathology.

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