16th International Conference on

## **Clinical and Experimental Ophthalmology**

September 18-20, 2017 | Zurich, Switzerland

## Comparison of the pattern of macular ganglion cell-inner plexiform layer defect between ischemic optic neuropathy and open-angle glaucoma

Masoud Aghsaei Fard, Marjan Afzali, Parisa Abdi, Mehdi Yasseri, Katayoon B E and Sasan Moghimi Tehran University of Medical Sciences, Iran

To compare the pattern of macular ganglion cell plus inner plexiform layer (GCIPL) and peripapillary retinal nerve fiber layer (RNFL) thickness changes in moderate to severe primary open-angle glaucoma (POAG) with nonarteritic anterior ischemic optic neuropathy (NAION) using optical coherence tomography (OCT) auto-segmentation. A total of 138 eyes (42 eyes with chronic unilateral NAION and their 42 unaffected fellow eyes, 32 eyes of 32 moderate to severe glaucoma patients, and 22 eyes of 22 healthy normal subjects) underwent neuro-ophthalmologic examinations and spectral-domain OCT in a cross-sectional study at a single academic institution. GCIPL and total retinal thicknesses were obtained from 208 by 208 cube scans of the macula centered around the fovea. The scanned region was divided into two concentric regions (inner and outer, with diameters of 3 and 6 mm, respectively) and eight sectors (four sectors in each of the inner and outer regions). Peripapillary RNFL thickness was also measured. Peripapillary RNFL, total macula, and GCIPL were significantly thinner in NAION and POAG eves compared to unaffected fellow eves of NAION and to age-matched healthy control eves in all eight sectors (P < 0.001). There was no significant difference in peripapillary RNFL, total macula, and outer region GCIPL thicknesses between the affected eyes of the patients with NAION and glaucoma patients. However, the inner region GCIPL was significantly thinner in NAION eyes compared to POAG eyes after adjusting for age, sex, and mean deviation of the visual field (P ¼ 0.001). Also, the GCIPL sector thicknesses were more strongly correlated with visual acuity than were the macular sectors in all patients (most sectors P \_ 0.001). Patients with NAION show differences in the tissue damage with greater loss of parafoveal GCIPL tissue thickness compared to patients with POAG.

## Biography

Marjan Afzali has completed his MD (General practitioner) from Ian University of Medical Sciences, Tehran, Iran, and speciality in Ophthalmology from Farabi Eye hospital, Tehran University of Medical Sciences, Iran in 2016. She is serving as an Ophthalmologist in her compulsary Health service period in Ahvaz University of Medical Sciences, Ahvaz, Iran. She has published more than 5 papers since started her residency course in Farabi hospital.

coral2100@yahoo.com

Notes: