OPTICAL COHERENCE TOMOGRAPHY FINDINGS IN PREECLAMPTIC WOMEN

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Background: The currently available information on the use of optical coherence tomography (OCT) in preeclampsia is based on case reports. The purpose of this study was to evaluate OCT findings in preeclamptic women.

Patients and Methods: The 27 preeclamptic women recruited for this study underwent ophthalmic and retinal OCT examinations. The size and location of ocular findings, involvement of the retinal layers and retinal nerve fiber layer (RNFL) thickness as determined by OCT were assessed.

Results: Four women (14.8%) had funduscopic findings related to preeclampsia: two had retinal hemorrhages and two had retinal edema. OCT revealed retinal pathology in 3 eyes (5.6%) of 2 patients (7.4%). There was a higher prevalence of ocular findings among women with severe preeclampsia accompanied by severe hypertension and/or neurological signs. OCT findings included: retinal edema, subretinal fluid, photoreceptors irregularities and lesions at the retinal pigment epithelium level (Elschnig spots). The choroid layer was normal. Peripapillary RNFL tended to be thicker in eyes with pathological findings on OCT.

Conclusions: The prevalence of ocular findings in both fundus and OCT examinations is relatively low in asymptomatic preeclamptic women. OCT was not more sensitive than funduscopy for detecting pathological ocular findings in preeclampsia, but it provided accurate definition and delineation of the findings. Given the unique ability of OCT to specifically define ocular findings in preeclampsia, we recommend that preeclamptic women diagnosed as having ocular involvement be evaluated and monitored by OCT.