CENTRAL CHOROIDAL THICKNESS IN EYES WITH CENTRAL SEROUS RETINOPATHY MEASURED USING SPECTRAL-DOMAIN OPTICAL COHERENCE TOMOGRAPHY

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PURPOSE: To examine central choroidal thickness in eyes with central serous retinopathy (CSR) using spectral-domain optical coherence tomography (SD-OCT).

METHODS: Fourteen subjects with CSR in active phase (16 affected eyes and 12 fellow eyes), 12 subjects with CSR in inactive phase (24 eyes) and 20 subjects (40 eyes) with no retinal or choroidal disease, underwent high-definition raster scanning using SD-OCT with enhanced depth imaging software. Choroidal thickness was measured from the posterior edge of the retinal pigment epithelium to the choroid/sclera junction.

RESULTS: The mean age of the active CSR subjects, inactive CSR subjects and control group were 34.2, 38.4, and 35.6 years respectively. There was no difference between the ages of the groups. The mean visual acuity of the eyes with active CSR, inactive CSR and control group were, 0.83, 0.98, 1.0 snellen lines respectively and the difference between groups was not significant. The choroidal thickness at the center of the fovea during the active phase in the affected eyes (range, 462 to 568 mm; mean 505.2 mm), in the fellow eyes (range, 348 to 460 mm; mean 399.5 mm) and during the inactive phase of the CSR subjects (range, 295 to 515 mm; mean 447.3 mm) was significantly thickened compared with the control group (range, 241 to 313 mm; mean 287 mm; P < 0.05).

CONCLUSIONS: Choroidal thickness in active and inactive phase of CSR across the macula demonstrates a thick choroid. This finding may be due to the disturbance of the choroid in CSR subjects.