Purpose: We evaluate functional and anatomical outcome after intravitreal ranibizumab injection in patients with acute central serous chorioretinopathy (CSC) and investigate fundus autofluorescence changes.

Methods: This is a small case series of 5 eyes with acute CSC treated with intravitreal injection of 0.5 mg ranibizumab. Baseline and follow-up visits included best-corrected visual acuity (BCVA), fundus examination, fundus autofluorescence (FAF), fluorescein angiography (FFA) and optical coherence tomography (OCT). The main outcome measures were changes in visual acuity, central macular thickness (CMT) and FAF findings.

Results: We studied 5 eyes of 5 patients with a mean age of 46 years. Mean follow-up was 11.2 months (range 6-21). The mean number of intravitreal injections was 1.2 (range 1-2). The mean initial BCVA was $0.18 \pm 0.04$ (logMAR) and it improved to $0.04 \pm 0.05$ (logMAR) at the final follow-up. The mean central macular thickness (CMT) measured with OCT was $479 \pm 121 \; \mu m$ at baseline and decreased to $196 \pm 50 \; \mu m$ at the final follow-up. Fundus autofluorescence imaging revealed hypoautofluorescence corresponding to the leakage points depicted by fluorescein angiography and hypoautofluorescence corresponding to the areas of subretinal fluid accumulation. After the resolution of subretinal fluid hyperautofluorescent dots were observed on FAF images.

Conclusions: Intravitreal ranibizumab injection resulted in complete resolution of subretinal fluid and visual acuity improvement in acute CSC cases. Prospective controlled studies are warranted to evaluate the long-term safety and efficacy. Different aspects of macular involvement in CSC cases can be evaluated with FAF imaging.