

Ellipsoid zone of photoreceptors in hemorrhagic AMD.

Slawomir Teper MD PhD

Clinical Dept. of Ophthalmology, Medical University of Silesia, Katowice, Poland

Purpose

To determine usefulness of swept-source optical coherence tomography (SS-OCT) for assessment of integrity of ellipsoid zone of photoreceptors in hemorrhagic AMD.

Methods

19 patients with recent retinal hemorrhages were included in the study. The patients came from a group undergoing anti-VEGF PRN treatment due to neovascular AMD. They were evaluated by means of SS-OCT (Topcon Triton).

Results

Ellipsoid zone of photoreceptors was accessible by SS-OCT in all patients. Retinal hemorrhages >0.25 mm caused distinct optical shadowing but despite lower signal strength it was possible to assess the area of ellipsoid zone. In all patients with retinal hemorrhages adjacent to the zone – at least some photoreceptors disruption was observed. In 7 patients there was no ellipsoid zone present behind the hemorrhage due to previously observed atrophy and/or scarring.

Conclusions

SS-OCT is an excellent tool to evaluate even small structures behind hemorrhagic changes. Loss of ellipsoid zone of photoreceptors in AMD patients can be related not only to atrophy and scarring but also to retinal hemorrhages.

Financial disclosure

supported by the National Centre for Research and Development, Poland grant STRATEGMED1/234261/2/NCBR/2014