A 33-year-old man presented to our clinic with a 3-day subacute history of a paracentral scotoma in the right eye. He reported a viral prodrome 2 weeks prior to the initiation of visual symptoms. The best-corrected visual acuity of the right eye was 20/20. Results of the anterior segment examination were normal. A classic dark-gray teardrop-shaped lesion was detected in the IR image but was unremarkable in the color fundus photograph and fundus autofluorescence images (Figure 1).

A horizontal spectral-domain optical coherence tomography (SD-OCT) B-scan showed focal reflectivity reduction of the ellipsoid zone (EZ), corresponding to a dark-gray lesion and hyperreflectivity at the Henle fiber layer (HFL) and outer nucleus layer (ONL) (Figure 2A). He also underwent examination using prototype confocal AO scanning laser ophthalmoscopy (AO-SLO) and AO-OCT imaging systems (Canon). The lateral resolution of AO-SLO and OCT imaging was approximately 3 μm, and the axial resolution of AO-OCT was 3.4 μm at the retina. Confocal AO-SLO imaging showed disruption of the cone photoreceptor mosaic, which corresponded to the AMN lesion in the IR image (Figure 2A and B). AO-OCT revealed hyperreflective dots at the HFL and ONL and showed signal attenuation in the EZ and interdigitation zone (IZ; Figure 2B).

Two months later, the patient reported a slight persistent scotoma, and his best-corrected visual acuity had not decreased. A slight AMN lesion was detected in the IR image (Figure 2C). The SD-OCT scan showed almost complete restoration of the EZ. However, the reflectivities of the ONL and HFL were still prominent (Figure 2C). Confocal AO-SLO imaging showed recovery of the cone photoreceptor mosaic (Figure 2D), and AO-OCT showed recovery of the EZ; however, the IZ was not well restored and a few hyperreflective dots at the ONL and HFL were still observed (Figure 2D).