

Author Response: The Evolution of the Plateau, an Optical Coherence Tomography Signature Seen in Geographic Atrophy

We would like to thank our colleagues, Marchese and Querques,¹ for initiating a discussion regarding our recent publication, “The Evolution of the Plateau, an Optical Coherence Tomography Signature Seen in Geographic Atrophy.”² In our study, we used longitudinal eye-tracked optical coherence tomography (OCT) to explore the origin of the “wedge-shaped subretinal hyporeflectivity” described by Querques et al.³ in some eyes with geographic atrophy (GA) secondary to age-related macular degeneration (AMD).³ We showed that this OCT signature, which we termed “plateau,” formed during the spontaneous collapse of drusenoid pigment epithelial detachments. This discovery allowed us to seek a histopathologic correlate for this OCT signature, and we concluded that the plateau was a mound of cellular processes, mostly Müller cells, bounded by a layer of persistent basal laminar deposit. Basal laminar deposit, a thickening of extracellular matrix material internal to the native RPE basal lamina, is strongly associated with AMD progression, and its reflectivity increases when overlying RPE and outer retinal structures are lost.⁴ Thus, we linked this finding to a previously described OCT signature called “outer retinal corrugation”⁵ in which persistent basal laminar deposit presents with a less elevated and corrugated configuration.⁴

We acknowledged that this OCT signature was first described by Querques et al.³ in a previous case series, and the aim of our article was to expand the series with “longitudinal” OCT data and assign a histopathologic correlate to the OCT findings. Our findings required us to reassess the original description by Querques et al.,³ in terms of tissue composition and morphology. We agree with Marchese and Querques that the morphology of these features varies and, while many may have a plateau configuration (wide at the base and flat at the apex), the shape of others may be more triangular. Since the plateau is formed during the collapse of drusenoid pigment epithelial detachments into GA, it is often accompanied by a “hyporeflective wedge-shaped band in geographic atrophy,” a distinct OCT signature described by Monés et al.⁶ This finding appears near the GA border as a hyporeflective band in the axonal portion of the outer plexiform layer.⁵ Consequently, we remain concerned that the terms “wedge-shaped subretinal hyporeflectivity” and “hyporeflective wedge-shaped band in geographic atrophy” could lead to confusion, as they may be used to describe distinct elements that often appear in the same eye.

In accordance to what the authors of the correspondence suggest, to specify not just morphology but also position within the retinal layers, we suggest “sub-RPE plateau” to distinguish it from the “hyporeflective wedge-shaped band in geographic atrophy” originally described by Monés et al.⁶ In essence, the “sub-RPE plateau” is a large form of outer retinal corrugations, and the contents of both are located in the sub-RPE space. This clarification has clinical significance, because the relatively hyporeflective contents of outer retinal corrugations, plateaus, and hyporeflective wedge-shaped bands in geographic atrophy

should not be confused with intra- or subretinal fluid needing treatment.

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Acknowledgments

Supported by the Macula Foundation, Inc., New York, New York, United States. CAC's research and the Project MACULA Web site have been supported by National Institutes of Health Grant R01EY06019, EyeSight Foundation of Alabama, International Retinal Research Foundation, Edward N. and Della L. Thome Foundation, the Arnold and Mabel Beckman Initiative for Macular Research, and Research to Prevent Blindness.

Disclosure: **A.C.S. Tan**, Bayer (F, R), Zeiss (F, R); **K.K. Dansingani**, None; **C.A. Curcio**, Genentech (C), Novartis (C), Merck (C), Janssen Cell Therapy (C), Ora Clinical (C); **K.B. Freund**, Genentech (C), Optovue (C), Optos (C), Heidelberg Engineering (C)

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Citation: *Invest Ophthalmol Vis Sci.* 2017;58:6196.
doi:10.1167/iops.17-23339

