None of the authors has any financial/conflicting interests to disclose.

References

1. Hillenkamp J, Kraus J, Framme C, et al. Retreatment of full-thickness macular hole: predictive value of optical coherence tomography. Br J Ophthalmol 2007;91:1445–1449.
2. Yao Y, Qu J, Dong C, et al. The impact of extent of internal limiting membrane peeling on anatomical outcomes of macular hole surgery: results of a 54-week randomized clinical trial. Acta Ophthalmol 2019;97:303–312.

Correspondence

To the Editor:

We read with great interest the article by Moon et al[1] concerning "Changes in subfoveal choroidal thickness (SFCT) following intravitreal dexamethasone (DEX) implant therapy for diabetic macular edema."

We really appreciated the aim to find out a new predictor parameter to estimate good functional and anatomical responses to DEX injection. We agree that choroidal thickness (CT), known to be related to systemic and eye diseases, could be useful for such a purpose.[2–4]

However, we would like to make some observations.

To measure the SFCT, the authors described an unusual technique.

They state that the measurements have been taken with a line perpendicular to sclero–choroidal interface. In our opinion, it should be better to pay attention to be perpendicular to the retinal pigment epithelium instead of the choroidal–scleral junction, which is blurred and bumpy, making it difficult to be perpendicular.[5–7]

In addition, we are concerned about the assessment of just SFCT in patients with subretinal fluid. In these cases, the normal retinal morphology is modified and the fovea could be displaced compared with the choroid, and during follow-up, the slice of imaged choroidal tissue could be different. Our statement is based on the different choroidal characteristics between Fig. A and B. In fact, in Fig. A, to the left of the arrow, there is some solid tissue going from the retinal pigment epithelium to the choroidal–scleral junction, which is missing in Fig. B, suggesting that these are different choroidal slices.

In our opinion to obtain reliable data, the measurements of small structures must be very precise because small mistakes could greatly affect the results, especially when the described findings are a few microns.[8–10]

Marco Gioia, MD*
Maddalena De Bernardo, MD, PhD*
Luigi Capasso, MD, PhD†
Nicola Rosa, MD*
*Department of Medicine,
Surgery and Dentistry "Scuola Medica Salernitana",
University of Salerno,
Baronissi, SA, Italy
†ASL Napoli 1,
Napoli, Italy

None of the authors has any financial/conflicting interests to disclose.

References

1. Moon KY, Choi SY, Song JH. Changes in subfoveal choroidal thickness following intravitreal dexamethasone implant therapy for diabetic macular edema. Retina 2020. doi: 10.1097/IAE.0000000000003029 Epub ahead of print.
2. De Bernardo M, Altieri V, Coppola A et al. Choroidal evaluation in patients under alpha-lytic therapy. Graefes Arch Clin Exp Ophthalmol 2020;258:2729–2736.
3. Gioia M, De Bernardo M, Capasso L, Rosa N. Comment on: Choroidal structural analysis in Alzheimer's disease, mild cognitive impairment, and cognitively healthy controls. Am J Ophthalmol 2021;225:207–208.
4. Capasso L, Gioia M, De Bernardo M, Rosa N. Choroidal thickness and microRNA146 in lupus nephritis patients [letter]. Clin Ophthalmol 2020;14:2773–2774.
5. Gioia M, De Bernardo M, Capasso L, Rosa N. Correspondence. Retina 2021;41:e3.
6. Gioia M, De Bernardo M, Capasso L, Rosa N. Reply. Retina 2021;41:e23–e24.
7. Gioia M, De Bernardo M, Capasso L, Rosa N. Comment on: Evolution of dome-shaped macula is due to differential elongation of the eye predominant in the peri-dome region: OCT measurements. Am J Ophthalmol 2021;226:270–275.
8. De Bernardo M, Vitiello L, Rosa N. Optic nerve ultrasound measurement in multiple sclerosis. Acta Neurol Scand 2019;139:399–400.
9. Rosa N, De Bernardo M. Ultrasound assessment of optic nerve sheath diameter in healthy volunteers. J Crit Care 2017;40:279.
10. De Bernardo M, Salerno G, Cornetta P, Rosa N. Axial length shortening after cataract Surgery: new approach to solve the question. Trans Vis Sci Tech 2018;7:34.

Reply

OPEN

To the Editor:

We thank Gioia et al[1] for their comments on our article, titled "Changes in subfoveal choroidal thickness after intravitreal dexamethasone implant therapy for diabetic macular edema," published in *Retina*.[2] We are pleased with their interest in our study.

They have suggested that the subfoveal choroidal thickness (SFCT) measurement in our study might

have been inaccurate because the measurement line was perpendicular to the choroidal–scleral interface and not to the retinal pigment epithelium. In addition, they claimed that the slice of the imaged choroidal tissue for SFCT measurement during follow-up could be different in patients with subretinal fluid and that it could have confounding effects on the results.

Regarding the SFCT measurement technique, we are afraid that the description of our method for measuring SFCT in the article was confusing. Indeed, we originally intended to state that SFCT measurement was performed perpendicular to the retinal pigment epithelium—going vertically from the outer border of the hyperreflective line of the retinal pigment epithelium to the choroidal–scleral junction in the center of the macula—as adopted in previous studies and suggested by Gioia et al as well.[1,3–5]

The second concern raised by Gioia et al could be another limitation of this study. Since the choroid is a highly vascularized structure, and its thickness and detailed morphology keep changing—often influenced by many factors—serial slices of enhanced depth imaging-optical coherence tomography scans during follow-up might have been slightly different. However, to avoid this confounding factor, optical coherence tomography scans with poor choroidal image quality were excluded from the study, and two experienced examiners (M.K.Y. and C.S.Y.), who were blinded to the patients' clinical data, performed independent measurements and carefully selected the horizontal sections passing through the fovea for final analysis. The intraclass correlation coefficient to assess the reliability of the 2 examiners' measurements was 0.99 (95% confidence interval: 0.98–0.99), indicating excellent reliability. The eye tracking feature of the Heidelberg Spectralis system also ensured that sequential scans were obtained of the same location, enabling accurate assessment of changes in choroidal thickness. Therefore, even if a few serial optical coherence tomography scans were not completely consistent, they would have limited influence on choroidal thickness as they were examined for very close positions. Furthermore, the large sample size of this study could compensate for the possibility of such small errors. Moreover, although linear regression analysis showed that each unit change (-0.1 logarithm of the minimum angle of resolution) in best-corrected visual acuity improvement was associated with a 3.91-μm decrease in SFCT, the actual changes in the mean choroidal thickness ranged from 19 μm to 48 μm depending on the subgroup.

Once again, we thank Gioia et al for their important insight into the need for a more accurate assessment of the choroid, which is of fundamental importance in choroidal research. We look forward to future studies that suggest more precise and standardized methods for measuring the choroid.

Ji Hun Song, MD, PhD
Ka Young Moon, MD
Shin Young Choi, MD
Department of Ophthalmology, Ajou University School of Medicine, Yeongtong-gu, Suwon, Republic of Korea.

Supported by the National Research Foundation of Korea (NRF) grant funded by the Korea government (MSIT) (No. NRF-2020R1C1C1010497).
None of the authors has any conflicting interests to disclose.

References

1. Gioia M, De Bernardo M, Capasso L, Rosa N. RE: changes in subfoveal choroidal thickness following intravitreal dexamethasone implant therapy for diabetic macular edema. Retina 2021. doi: 10.1097/IAE.0000000000003257. Epub ahead of print.
2. Moon KY, Choi SY, Song JH. Changes in subfoveal choroidal thickness after intravitreal dexamethasone implant therapy for diabetic macular edema. Retina 2021;41:1283–1292.
3. Nourinia R, Ahmadieh H, Nekoei E, et al. Changes in central choroidal thickness after treatment of diabetic macular edema with intravitreal bevacizumab correlation with central macular thickness and best-corrected visual acuity. Retina 2018;38:970–975.
4. Rewbury R, Want A, Varughese R, Chong V. Subfoveal choroidal thickness in patients with diabetic retinopathy and diabetic macular oedema. Eye (Lond) 2016;30:1568–1572.
5. Rayess N, Rahimy E, Ying GS, et al. Baseline choroidal thickness as a predictor for response to anti-vascular endothelial growth factor therapy in diabetic macular edema. Am J Ophthalmol 2015;159:85–91.e1.

Correspondence

To the Editor:

We read with enthusiasm the photo essay titled "Hemorrhagic Bacillary Layer Detachment in Macular Telangiectasia Type 2" recently published by Prithvi Ramtohul et al.[1] High-resolution optical coherence tomography scans clearly demonstrated the presence of a split between the external limiting membrane and ellipsoid zone, with hemorrhage occupying the bacillary layer detachment