abnormalities (eg, hypochromic or microcytic anemia), and dysgammaglobulinemia, with bone marrow plasmacytosis.[5] The present case accompanied these symptoms.

Unilateral involvement of optic nerve in this case could not be fully explained, but some previous reports demonstrated such pattern with paraneoplastic syndrome.[6,7] We need to be aware of unilateral paraneoplastic syndrome.

Conflict of interest

The authors declare no conflict of interest.

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Sir,

Change in subfoveal choroidal thickness in central serous chorioretinopathy

In an article regarding changes in subfoveal choroidal thickness (SFCT) in patients with central serous chorioretinopathy,[1] Drs Kang and Kim described decreases in SFCT of 39.9 and 66.9 μm respectively, following observation and treatment with reduced-fluence photodynamic therapy.

We would like to highlight some aspects of the study design that may have bearings on the interpretation of these results. Although the authors mentioned diurnal variation in the discussion,[1] it does not appear from the description of the methods that this was accounted for in the study design. Earlier studies[2,3] have demonstrated significant diurnal variation of SFCT measured using spectral-domain optical coherence tomography. In these papers, the amplitude (difference between the maximum and minimum choroidal thickness) exceeded 30 μm,[2,3] which is similar in magnitude to the change reported in the observation group in the current paper. Furthermore, when subjects with thicker choroids (defined as $\geq$400 μm) were sub-analyzed in one paper,[2] the mean amplitude was even larger (43.1 μm) with a maximum of 59 μm. In addition to within-subject diurnal variation between the initial and follow-up reviews, it is also important in this study to consider the effects of potentially different measurement times between the two groups of patients (ie, within-group variation), which might have had an effect on the mean choroidal thickness of each group.

Another point of interest is whether the authors utilized the eye-tracking feature of the Spectralis OCT (Heidelberg Engineering, Heidelberg, Germany) in performing the successive OCT scans between visits. As the choroid is known to exhibit spatial variation in thickness throughout the macula,[4,5] a minor change in the OCT scan position may result in differences in choroidal thickness measurements, which are sufficient to influence the comparison of SFCT. These concerns could have been mitigated by the use of the eye-tracking function that is also available on the Spectralis OCT, which we believe is an important methodological consideration in longitudinal measurements of choroidal thickness.

In conclusion, we congratulate the authors on an interesting paper, and urge investigators to consider the impact of diurnal variation of choroidal thickness on the results of such studies.

Conflict of interest

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Sir,

Reply to 'Change in subfoveal choroidal thickness in central serous chorioretinopathy'

Thank you for your constructive comments.[1] As you pointed out, the number of changes in choroidal thickness was not large, especially in eyes with spontaneously resolved central serous chorioretinopathy (CSC). In eyes with spontaneous resolution of CSC in our previous report, subfoveal choroidal thickness was 459.16 ± 77.50 μm at baseline and decreased to 419.31 ± 54.49 μm after spontaneous resolution; the difference was ~40 μm. In eyes treated with photodynamic therapy, choroidal thickness was also reduced from 416.43 ± 74.01 to 349.50 ± 88.99 μm; the difference was ~70 μm.[2] As we described in the Discussion section, diurnal variation may have been an issue, especially when the difference was not large. Previous reports have described diurnal variations of 33.7 and 33.0 μm.[3,4]

However, diurnal variation indicates a mean maximum–minimum difference in a day, not a casual change in a day. I admit that diurnal variation may result in bias; however, if the difference exceeds the amount of known diurnal variation, I believe that the difference would be meaningful.

I reviewed the OCT image data regarding the examination time and explored the incidence, which exceeded 3 h between examination at baseline and after resolution. For example, if a patient underwent OCT at 9:00 hours on 1 June and 11:00 hours on 15 July, the time difference was regarded as 2 h. There were no noticeable differences between the two groups ($P = 0.729$; Table 1). Changes in choroidal thickness in each group were also compared. The Mann–Whitney *U*-test revealed no significant differences between the <3 h group and >3 h group in both spontaneous resolution and low-fluence PDT ($P = 0.174$ and 0.207, respectively). Based on these results, I concluded that diurnal variation did not create substantial bias in the study, although the possibility did exist.

Table 1 Time difference between examination at baseline and after resolution of CSC

	Difference		P*
	<3 h	*>3 h*	
Spontaneous-resolution group	10 (62.5%)	6 (37.5%)	0.729
Low-fluence PDT group	14 (70.0%)	6 (30.0%)	

*P-value was calculated by Fisher's exact test.

Based on another suggestion, we also usually adopt the eye-tracking feature of the Spectralis OCT (Heidelberg Engineering, Heidelberg, Germany) when performing successive OCT scans at each visit. I agree with your concern that even a minor change in the OCT scan may cause differences in choroidal thickness measurements.

Conflict of interest

The author declares no conflict of interest.

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