# Correspondence

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# The Relationships between Anterior Chamber Parameters and Obesity

Dear Editor.

We read with interest the article titled "Evaluation of anterior segment parameters in obesity" [1], in which the authors showed that obesity was associated with higher intraocular pressure (IOP) and lower anterior chamber depth (ACD). The study was undoubtfully well designed and conducted, and the results were clear.

However, in the Materials and Methods section, the manner in which "age- and sex-matched healthy subjects" were randomly selected from a general population to prevent bias should be described more specifically, because there might be a concern about selection bias. Comparison of the ages between the two groups should also be performed to show the similarity in age distribution between the two groups.

In the Discussion section, the authors postulated that increase in retrobulbar fat associated with obesity might cause a decrease in ACD and an increase in IOP. In addition, there should be explanation for the lack of difference in axial length between the two groups. Evaluation of the grade of cataract could also be helpful as cataract might have influenced the decrease in ACD. Investigation and comparison of exophthalmometric values could also be useful to determine the presence of eveball protrusion caused by the pressure from increased retrobulbar fat. In addition, because body height might be positively correlated with both ACD and axial length [2], inclusion of the height in the analyses would produce more meaningful results. Although the authors showed that anterior chamber angle had significant correlation with body mass index (BMI), there was no significant difference in anterior

chamber angle in a comparison between the two groups. Multivariate analysis would be necessary to address the controversy, as well as to exclude the effects of confounding factors.

Finally, we would like to point out that the mean BMI in the obese group was 39.8, which suggests that most of the patients were not simply obese, but severely obese with class II (BMI between 35.0 and 39.9) or III obesity (BMI ≥40.0) [3]. Therefore, although the results did show that patients with severe obesity might have increased IOP and decreased ACD, it appears that addition studies should be performed to evaluate the changes in anterior segment parameters in patients with class I obesity (BMI between 30.0 and 34.9) and overweight patients (BMI between 25.0 and 29.9).

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### **Conflict of Interest**

No potential conflict of interest relevant to this article was reported.

#### References

- Gunes A, Uzun F, Karaca EE, Kalaycı M. Evaluation of anterior segment parameters in obesity. *Korean J Ophthal*mol 2015;29:220-5.
- Wong TY, Foster PJ, Johnson GJ, et al. The relationship between ocular dimensions and refraction with adult stature: the Tanjong Pagar Survey. *Invest Ophthalmol Vis Sci* 2001;42:1237-42.

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 Aronne LJ. Classification of obesity and assessment of obesity-related health risks. Obes Res 2002;10 Suppl 2:105S-15S.

## Author reply

#### Dear Editor.

We appreciate the thoughtful comments regarding the article entitled "Evaluation of anterior segment parameters in obesity" [1], recently published in the Korean Journal of Ophthalmology. We agree with the comments on the relevance of description of control selection to prevent bias. In this study, control subjects were individuals from the general population admitted to the ophthalmology clinic for routine examination. In addition, all of the subjects in the obese and control groups were in the same age range, with a similar mean age.

As mentioned, there was no difference in axial length (AL) between the two groups. Although AL was significantly associated with greater body height [2], there is no clear data about the effect of obesity on the measurement of AL. Therefore, these findings need to be investigated in a larger patient group.

As recommended, evaluation of the grade of cataract, exophthalmometric values, and body height could be helpful to detect relationships between obesity and anterior chamber depth, anterior chamber angle, AL and intraocular pressure. Also, multivariate analysis might provide more meaningful results.

In conclusion, we are grateful for the comments and the suggested research possibilities.

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#### References

- Gunes A, Uzun F, Karaca EE, Kalayci M. Evaluation of anterior segment parameters in obesity. *Korean J Ophthal*mol 2015;29:220-5.
- Yin G, Wang YX, Zheng ZY, et al. Ocular axial length and its associations in Chinese: the Beijing Eye Study. *PLoS One* 2012;7:e43172.

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# Recurrent Unilateral Vogt-Koyanagi-Harada Disease with Posterior Scleritis

Dear Editor,

Vogt-Koyanagi-Harada (VKH) disease usually presents as bilateral panuveitis associated with poliosis, vitiligo,

alopecia, and central nervous system and auditory signs. Simultaneous onset in both eyes is common. In unilateral cases, the second eye is typically affected within 2 weeks of the first eye. We describe the case of a patient with unilateral VKH in which relapse was accompanied by posterior scleritis after tapering systemic steroid treatment.

A 37-year-old woman visited our clinic with blurred vision in her left eye. She had suffered from severe headache with tinnitus for 1 week, left eye pain for 4 days and metamorphopsia for 1 day. She also complained of a several month history of alopecia (Fig. 1A). The initial