3. 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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Conflict of Interest

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

References

1. Gunes A, Uzun F, Karaca EE, Kalayci M. Evaluation of anterior segment parameters in obesity. *Korean J Ophthalmol* 2015;29:220-5.
2. 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

best-corrected visual acuity (BCVA) was 1.0 in the right eye and 0.16 in the left eye. The initial intraocular pressure was 10 mmHg in both eyes. A mild anterior chamber reaction was observed without keratic precipitate. On fundus examination of the left eye, serous retinal detachment was observed, but no vitreous cells or haziness were detected (Fig. 1B-1D). The patient was diagnosed with unilateral VKH disease, and prescribed prednisolone 60 mg/day. She was also administered topical prednisolone and cyclopentolate eye drops. Four weeks later, all of her symptoms had resolved completely and the BCVA of the left eye had recovered to 1.0. Thus, we began to taper systemic steroid from 60 to 5 mg over 2 months.

After 3 weeks, periorbital swelling, chemosis, conjunctival injection and itching sensation occurred in the left eye, appearing as acute allergic conjunctivitis (Fig. 1E). Neither periorbital pain nor serous retinal detachment was reported. One day later, symptoms were aggravated; although BCVA was still 1.0 in the left eye, serous retinal detachment had developed, though to a less severe degree than on initial presentation. Ultrasonography of the left eye revealed increased thickness of the posterior scleral wall and typical T sign (Fig. 1F and 1G), which is caused by the spread of inflammation along Tenon's space into the optic nerve sheath. We recommended that she be hospitalized and start high-dose intravenous steroid pulse therapy (methylprednisolone 1 g/day for 3 days). After starting high-dose steroid pulse therapy, the patient's general condition and ocular/visual symptoms began to improve. Now she stopped steroid therapy and in the past several months, there have been no other complications or sequelae.

VKH is a non-necrotizing diffuse granulomatous inflammation involving the uvea. Although the exact cause of inflammation remains unclear, current evidence suggests that it involves an autoimmune process driven by T lymphocytes associated with melanocytes. The differential diagnosis of VKH disease includes sympathetic ophthalmia, uveal effusion syndrome, posterior scleritis, acute posterior multifocal placoid pigment epitheliopathy, and sarcoidosis. VKH disease usually presents as bilateral panuveitis. Simultaneous onset in both eyes is common, and, in unilateral cases, the second eye is typically affected within 2 weeks of the first.

There have been few reports of unilateral VKH disease. A et al. [1] reported the case of a 4-year-old boy with unilateral VKH disease; even though there was no inflammation in the unaffected eye in that case, ultrasonography revealed thickening of the choroids in both eyes.

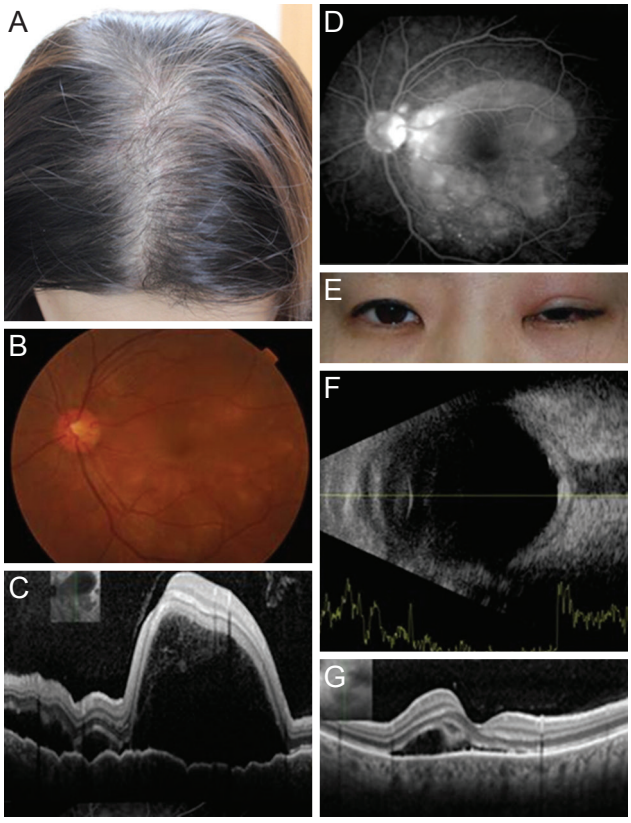

Fig. 1. (A) Alopecia developed several months before ophthalmic symptoms. (B) Initial fundus photography of the left eye, diffuse serous retinal detachment was observed. (C) Initial optical coherence tomographs showed subretinal fluid with serous retinal detachment, involing macula. (D) Initial fluorescein angiography showed some leak points and pooling into the subretinal space. (E) Recurred state, there was upper lid erythema, swelling and ptosis. (F) Recurred state, the ultrasonographs showed the increased thickness of the posterior scleral wall and the typical T sign caused by the spread of inflammation along the Tenon's space into the optic nerve sheath. (G) Recurred state, the serous retnal detachment was relapsed in optical coherence tomographs. But it was less severe than initial state.

Posterior scleritis is a relatively rare disease that occasionally appears with exudative retinal detachment and multiple pinpoint leaks on fluorescein angiography, similar to the signs of VKH disease. Furthermore, posterior scleritis can be differentiated from orbital cellulitis based on complaints of lid swelling, erythema and eye pain in scleritis. Orbital cellulitis and posterior scleritis are both potentially life-threatening conditions that require urgent management [2,3].

Differentiation between VKH disease and posterior

scleritis is achieved through observation of sun set glow fundus and neurologic or dermatologic signs not seen in posterior scleritis. Posterior scleritis is also usually unilateral, and T-sign is a unique characteristic of this disease. Recently, there have been some reports, especially in Japan, of posterior scleritis appearing concurrently with VKH disease in patients; Kouda et al. [4] reported that posterior scleritis was an early manifestation of VKH.

In our case, neurologic symptoms such as headache and tinnitus appeared as clinical features of VKH, while T-sign and lid swelling were signs of posterior scleritis. Anterior chamber reaction and serous retinal detachment were also observed in both VKH and posterior scleritis. Thus, we conclude that our case involved unilateral VKH disease with posterior scleritis.

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Conflict of Interest

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References

1. A VP, Kumar JS, K NN, et al. Unusual case of Vogt-Koyanagi-Harada syndrome presenting as non-specific headache. *J Clin Diagn Res* 2014;8:VD06-7.
2. Rubinstein A, Riddell CE. Posterior scleritis mimicking orbital cellulitis. *Eye (Lond)* 2005;19:1232-3.
3. McCluskey PJ, Watson PG, Lightman S, et al. Posterior scleritis: clinical features, systemic associations, and outcome in a large series of patients. *Ophthalmology* 1999; 106:2380-6.
4. Kouda N, Sasaki H, Harada S, et al. Early manifestation of vogt-koyanagi-harada disease as unilateral posterior scleritis. *Jpn J Ophthalmol* 2002;46:590-3.

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Intravitreal Bevacizumab for the Treatment of Optic Disc Edema in a Patient with POEMS Syndrome

Dear Editor,

Polyneuropathy, organomegaly, endocrinopathy, monoclonal gammopathy, and skin changes (POEMS) syndrome is a rare multisystem disorder of obscure etiology that is associated with plasma cell dyscrasia [1]. Optic disc edema (ODE) has been reported to be a common ocular manifestation of POEMS syndrome [2]. Vascular endothelial growth factor (VEGF) has been regarded to have an important role in the pathophysiology of POEMS syndrome. We present a case of a young female patient presenting with bilateral optic nerve head edema after being diagnosed with POEMS syndrome, who was successfully treated with repeated intravitreal bevacizumab injections. The study protocol was approved by the Institutional Review Board of Yonsei University Severance Hospital and followed the tenets of the Declaration of Helsinki.

A 34-year-old female patient presented with progressive narrowing of her visual field (VF). She had been diagnosed with POEMS syndrome 3 months previously at the department of hemato-oncology and had received palliative radiotherapy of 5,000 cGy to her right iliac crest, in which a plasmacytoma was located. She was also prescribed thalidomide 100 mg/day orally. According to her medical records, she had bilateral ODE at the time of diagnosis. At that time, lumbar puncture had revealed a slightly increased intracranial pressure of 16.18 mmHg. Her best-corrected visual acuity and intraocular pressure were 20 / 25 and 18 mmHg, respectively. There were no abnormal findings in either eye, with the exception of severe bilateral ODE.

Automated perimetry showed bilateral enlarged blind spots and VF constriction. A fluorescein angiogram revealed early, well delineated hyperfluorescence in both optic discs, compatible with ODE (Fig. 1A-1H). Indocyanine green angiography revealed no abnormalities of choroidal perfusion.

Although her central vision was largely unaffected, the