

## Glaucoma caused by isolated microspherophakia: A long story

Dear Sir,

We read with great interest the original article by Senthil *et al.*<sup>[1]</sup> regarding trabeculectomy in patients with microspherophakia. We have followed-up a patient who underwent a trabeculectomy is diagnosed with a microspherophakia and glaucoma in the glaucoma clinic of Yuzuncu Yil University in for 17 years.

A 16-year-old girl with microspherophakia was examined in our clinic for uncontrolled glaucoma in July 1997. The intraocular pressure (IOP) was 40 mm Hg in the right eye and 44 mm Hg in the left eye. We performed lensectomies (March 1997) in both eyes with a 1-week intervals. Postoperatively, no treatment was required until the 6-month follow-up after the surgery. During this time, the IOP started to rise again (September 1997) and was controlled with a topical  $\beta$ -blocker and carbonic anhydrase inhibitors. Two years after lensectomies, a trabeculectomy (June 1999) was found in the right eye. The condition led the eye to an uncontrolled glaucoma despite medical treatment. The IOP remained <20 mm Hg with no medication in right eye and with topical eyedrops in the left eye until the 4-year follow-up visit. Then, the IOP was increased to 26 mm Hg with a progression of the c/d ratio in both eyes. A second trabeculectomy (July 2003) with mitomycin-C was performed in the right eye, and a first trabeculectomy (March 2003) with mitomycin-C was performed in the left eye. The IOP was fairly regulated without a topical treatment until March 2008 (approximately 8.5 years later). Subsequently, bilateral topical  $\beta$ -blocker 2 times a day was prescribed because of the increased IOP in both eyes, which always remained higher than 20 mm Hg. The treatment was continued. On the last examination (Jun 2014) [Fig. 1a and b], IOP found 18 mm Hg and 16 mm Hg and the c/d ratio was 0.85 and 0.75 respectively in the right and left eye [Fig. 1c and d].

Willoughby and Wishart described a case of spherophakia with glaucoma where, following a lensectomy, it was possible to control the IOP successfully without additional

medication.<sup>[2]</sup> In contrast, our letter in reply to Willoughby's study showed that lensectomy could control the IOP in the short-term period, but subsequently trabeculectomy was required in both eyes.<sup>[3]</sup> Lensectomy provided by a temporary reduction in the IOP and 6 months later medical glaucoma treatment and trabeculectomy were required. Trabeculectomy had caused a long period of regression in the IOP. Topical treatment was used intermittently for a low tens IOP. Furthermore, one of the effected eyes needed a secondary surgery.

There was no visible evidence of progression had been observed in our patient during 17 years. Trabeculectomy in glaucoma associated with microspherophakia can be an effective treatment option over a long period. Trabeculectomy should be used in a progression case.

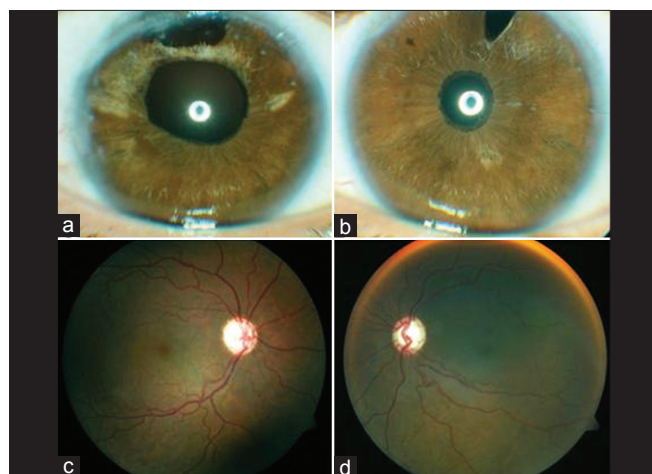
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## References

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**Figure 1:** (a) Biomicroscopic view of the anterior segment after lensectomy in the right eye. (b) Biomicroscopic view of the anterior segment after lensectomy in the left eye. (c) Glaucomatous changes in the optic disc in the right eye. (d) Glaucomatous changes in the optic disc in the left eye

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