Today, 20/20 is not always an acceptable outcome for premium lens patients. Even with all the advances in IOLs and surgical technologies, visual anomalies can still occur, and an IOL’s optic design may or may not be a factor. Among these phenomena, dysphotopsia is one patients often complain about; however, rarely is it reported in patients’ charts.

**ARC-SHAPED SHADOW**

Negative dysphotopsia, described as an arc-shaped shadow, usually in the temporal field of vision, is a rare condition that can present after in-the-bag posterior chamber IOL implantation. Positive dysphotopsia, in the form of halos, glare, and streaks, is more commonly noticed by patients. Those phenomena tend to occur especially in scotopic conditions, whereas patients are more likely to report that negative dysphotopsia persists all the time.

The literature on negative dysphotopsia is growing, but we do not yet have the means to distinguish patients who will be symptomatic from those who will be dysphotopsia-free after surgery. Patients who are sensitive to light seem to be more affected when light enters the eye temporally (40º to 90º), and it is the subsequent shadow symptoms they complain most about. Full resolution without surgical intervention occurs for some patients; if the condition persists, IOL exchange or secondary lens implantation can be performed to alleviate the symptoms.

Anecdotally, I have found that when dysphotopsia occurs in one eye, the contralateral eye is at higher risk for the same condition. I have also noticed that patients with chronic negative dysphotopsia often delay second eye surgery for fear of experiencing the same complication. I now have a good surgical strategy for treating these patients that includes implanting the Softec HD Oval IOL (Lenstec).

**CASE PRESENTATION**

In March 2012, a 69-year-old woman underwent uncomplicated cataract surgery in her left eye at another center. The day after surgery, UCVA was 20/25; however, the patient described what she referred to as a “bubble” or a “blinder” in her temporal field of vision. At 1 week, UCVA remained 20/25, and complaints of the shadow continued. The UCVA was stable at the next follow-up, but the patient still complained of the shadow, so she was referred to a retina specialist for evaluation. The retinal exam was unremarkable, and visual field tests yielded nothing of substance.

She was referred to me in May 2012, and I diagnosed her with negative dysphotopsia. We discussed her options, including reverse optic capture, IOL exchange, and secondary lens implantation. Unsatisfied with the lack of a proven treatment, the patient sought a second opinion outside our office. That physician confirmed the diagnosis and discussed similar treatment options but, in the end, recommended observation rather than additional lens surgery.

The patient returned to our office in March 2013 with complaints of glare and halos in her fellow eye, and she reluctantly scheduled cataract surgery. At

**TAKE-HOME MESSAGE**

- Patients who are sensitive to light seem to be more affected by negative dysphotopsia when light enters the eye temporally.
- IOL exchange or secondary lens implantation can be performed to alleviate the symptoms of negative dysphotopsia.
- An IOL with a large optic may avoid the symptoms of negative dysphotopsia.
The literature on negative dysphotopsia is growing, but currently there is no way to distinguish patients who will be symptomatic from those who will be dysphotopsia-free after surgery.

every visit, she stressed that she could not tolerate having the same type of shadowing in both eyes. I therefore suggested implanting the Softec HD Oval, which has a wide, oval optical zone (5.75 X 6.50 mm) and a large overall length (12.5 mm). These factors together reduce the risk of negative dysphotopsia. The size of the optic makes this lens essentially pupil-independent, meaning it is less sensitive to decenteration and more forgiving as capsular centration occurs postoperatively.

The patient continued to be nervous about surgery in her fellow eye, asking me for promises that the same phenomenon would not occur again. Eventually she underwent uncomplicated surgery in April 2013. On postoperative day 1, she had a UCVA of 20/20 and no complaints of negative dysphotopsia. To date, she has remained symptom-free in her right eye. The dysphotopsia persists in her left eye, but she reports that she can cope with it.

CONCLUSION

When the Softec HD Oval is implanted in the capsular bag, its large overall length causes it to be positioned farther back than shorter IOLs. This design factor together with the oval shape of the lens optic have the potential to enhance visual outcomes. The optic of the Softec HD Oval is wide enough to avoid light scatter and gives patients clear, crisp vision.

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