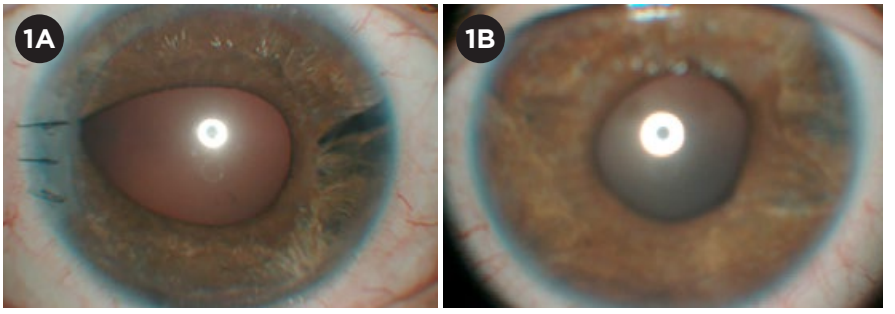
Turning His Brown Eyes Blue: A Patient's Hazardous Goal

What do you do when a patient is determined to pursue unapproved and unsafe cosmetic treatment? This month, Jake E. Radell and Joseph F. Panarelli, MD, discuss a challenging case, with additional commentary by Ron W. Pelton, MD, PhD, Academy Ethics Committee chair.



EXPLANTATION. *The patient's eyes after we removed his initial iris implants.*

An Initial Surgery in Panama

Kevin Kole* was initially happy with his "new" eyes. In 2007, he had traveled to Panama to receive artificial NewIris implants, which turned his naturally brown eyes to a stunning blue. But 10 years later, he started to notice cloudy vision and haloes in his right eye.

We get a look. In 2017, at his initial exam at our clinic, Mr. Kole had best-corrected visual acuity (BCVA) of 20/40 in his right eye and 20/20 in the left. He had an elevated intraocular pressure (IOP) in the right eye. Anterior segment examination was notable for mild corneal edema in the right eye. Endothelial cell counts were 550 cells/mm^2 in the right eye and 1,350 cells/mm^2 in the left eye. His central corneal thickness was 740 µm in the right eye and 600 µm in the left. His IOP was initially controlled with topical therapy. We recommended removal of the implants in order to avoid further damage to his eyes.

Patient's hesitance. Although Mr. Kole was hesitant about surgical intervention, six months later he began to develop bullous keratopathy in the right eye with worsening pain. After another four months, he agreed to have both iris implants removed.

Implants explanted. Although the iris implant removal was uncomplicated, the damage had already been done. He required a partial corneal transplant—Descemet stripping automated endothelial keratoplasty—in the right eye. His IOP began to climb in that eye after surgery, and he noted that vision in the eye was subjectively worse. Optical coherence tomography revealed swelling of the inner retina just outside the macula, and a fluorescein angiogram confirmed the presence of a branch retinal artery occlusion (Mr. Kole was sickle-cell trait positive).

IOP control. Mr. Kole then underwent placement of a glaucoma drainage implant in the anterior chamber for control of his IOP. He did not want to undergo cataract extraction for fear of causing further damage to the iris, which dilated poorly and would have required pupil stretching. Postoperatively, Mr. Kole was doing well with a BCVA of 20/25 and IOP of 12-14 mm Hg in the right eye. His left eye pressure had been maintained on topical therapy. His endothelial cell count in both eyes was stable throughout this time frame.

Counseling on experimental procedures. We had extensive discussions with Mr. Kole regarding the psychosocial factors leading to his desire for lighter colored eyes. He told us that he still wanted to lighten his eyes, and we carefully explained that all surgical eye-lightening procedures are experimental and associated with significant ocular complications.

Another Trip Overseas

After hearing about another group offering a "new" type of iris-lightening procedure, Mr. Kole flew to Turkey.

SLT to lighten the iris. The procedure in Turkey utilized selective laser trabeculoplasty (SLT) to depigment the iris. This laser is able to lyse intracytoplasmic melanosomes via selective photothermolysis due to its affinity for melanin. Melanosome lysis results

CASE REPORT BY **JAKE E. RADELL** AND **JOSEPH F. PANARELLI, MD;**
ADDITIONAL COMMENTARY BY **RON W. PELTON, MD, PHD.**

Joseph F. Panarelli, MD.

in decreased pigmentation and, therefore, lightening of the iris. The initial goal for Mr. Kole was to deliver 100 spots of laser at 0.4 mJ to each eye. Fourteen sessions per eye were planned, but the procedure was discontinued after several days due to fluctuating IOP in the left eye and worsening inflammation in both eyes.

Our patient returns. Upon returning to New York City, Mr. Kole came immediately for follow-up. We noted significant inflammation in both eyes and elevated IOP in the left eye. A glaucoma drainage implant was placed in the left eye, and inflammation was controlled with topical steroids, but the posterior subcapsular cataract in his right eye had worsened, and his vision began to drop.

The decision about how to proceed next was challenging. The patient was receiving psychiatric treatment, which included both medical and cognitive therapy, but he could not walk in public without wearing dark shades to "hide" his eyes and protect him from the intense glare that he now faced.

Given the extent of iris damage in the right eye, we—along with a team from Wills Eye Hospital—offered him cataract removal with insertion of an IOL and the HumanOptics iris implant in both eyes. This required removal of the remaining atrophic iris. He underwent this procedure, is pleased with the color of his iris implants, and is doing well in the early postoperative course.

Discussion

This case reminds us that the physician's job may extend beyond the scope of our individual subspecialty. This patient's psychological issues ultimately translated directly to ocular pathology, and we had to think creatively to help him achieve his desired outcome.

Although Mr. Kole's right eye had significant lenticular changes as well as iris defects, the left eye was only slightly distorted, with an oval pupil and minimal transillumination defects.

Ultimately, the question was whether we as surgeons could and should take on significant risk to protect the patient from himself. Though the patient had been under psychiatric care and treatment attempted, this was not going to deter the patient from pursuing unsafe and unapproved treatments to lighten his eyes—and he even contemplated suicide when he was forced to stop the laser treatments in Turkey.

In the end, we felt that with proper planning and approach, we could achieve the patient's desired outcome without taking an unacceptable amount of risk. *—Mr. Radell and Dr. Panarelli*

* Patient name is fictitious.

Mr. Radell is a third-year medical student at the Icahn School of Medicine at Mount Sinai in New York, N.Y. *Financial disclosures: None.*

Dr. Panarelli is chief of the glaucoma service and director of the glaucoma fellowship at New York University Langone Health's Department of Ophthalmology in New York, N.Y. *Relevant financial disclosures: None.*

Dr. Pelton practices oculofacial plastic surgery in Colorado Springs, Colo. He is a board member of the Ophthalmic Mutual Insurance Company (OMIC) and Academy Trustee-at-Large. *Relevant financial disclosures: OMIC: C.*

See disclosure key, page 8. **For full disclosures,** see this article at aao.org/eyenet.

The Rising Incidence of BDD

The patient in this case study clearly displays the signs and symptoms of body dysmorphic disorder (BDD). The American Psychiatric Association (APA) classifies BDD as part of the obsessive compulsive and related disorders category. These patients present with a "preoccupation with one or more perceived defects or flaws in physical appearance that are not observable or appear slight to others."[1] As with this patient's fixation on iris color, the obsessions can be extremely debilitating, causing social and occupational impairment, and eventually leading to dangerous medical choices.

BDD patients' desire for—and frustration with—surgical "solutions." The foundational theme of the Academy's Code of Ethics is "protecting the patient," and it was designed to help the ophthalmologist make medical decisions that are in the best interest of the patient. In patients with BDD, the surgical repair of perceived imperfection(s) is the classic "desert mirage," because it offers hope that is rarely delivered. One study has found that over 80% of patients with BDD are unhappy with their cosmetic outcome,[2] and another found that the overwhelming majority have worse BDD symptoms after surgery.[3] It is important to understand that compared with other psychiatric diseases, patients with BDD have substantially higher rates of suicide[4] and aggressive behavior toward their surgeon.[5] Protecting such patients would most probably entail a psychiatric referral. The Academy's Code of Ethics would rarely support a solely cosmetic surgical intervention for patients such as Mr. Kole—though in this case, the surgeons were right to replace a damaged body part.

Look for signs of BDD. In this age of social media and digitally enhanced beauty, interest in cosmetic procedures of all types is on the rise,[6] and surgeons will encounter more BDD. Be wary of patients with cosmetic "flaws" that seem minimal, and familiarize yourself with tools to help diagnose BDD.[7] Remember your oath to do no harm and understand that "protecting" these patients very rarely involves surgery. *—Dr. Pelton*

1 APA. *Diagnostic and Statistical Manual of Mental Disorders.* 5th ed. APA: 2013.
2 Veale D et al. *Br J Psychiatry.* 1996;169(2):196-201.
3 Sarwer DB. *Aesthet Surg J.* 2002;22(6):531-535.
4 Vashi N. *Beauty and Body Dysmorphic Disorder: A Clinician's Guide.* Springer International Publishing: 2015.
5 Sweis IE et al. *Aesthetic Plast Surg.* 2017;41(4):949-954.
6 https://www.medicalnewstoday.com/articles/324693. Accessed Jan. 29, 2021.
7 The Body Dysmorphic Disorder Foundation Scales Used for BDD. https://bddfoundation.org/professionals/scales/. Accessed Jan. 24, 2021.