

# CLINICAL UPDATE

## Less Invasive Eyelid and Periorbital Surgery

Patients in need of reconstruction of the eyelid or area surrounding the eye, whether for functional or cosmetic reasons, are increasingly being treated with less invasive surgical techniques — and in some cases with a non-surgical approach — pioneered at UCLA's Jules Stein Eye Institute.

“Across the entire medical field, we have seen a movement toward minimally invasive treatments,” says Robert A. Goldberg, MD, the Karen and Frank Dabby Professor of Ophthalmology and chief of JSEI's Orbital and Ophthalmic Plastic Surgery Division. “In both aesthetic and functional reconstructive eyelid and periorbital surgery, though,

the change over the last 10 years has been especially phenomenal.”

Dr. Goldberg's team has been a driving force behind the change, which has involved two separate trends: surgery through much smaller incisions; and the advent of hyaluronic acid gels that Dr. Goldberg's group was among the first to use in the periorbital area as injectable fillers, giving certain patients the option of an effective non-surgical treatment.

**Small-Incision Surgery** The small-incision approach has become the norm for the vast majority of surgical candidates in JSEI's Orbital and Ophthalmic Plastic Surgery Division, such

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▲ Dr. Robert Goldberg administers injectable filler to a patient's lower eyelid area.

## Contrast Sensitivity Linked to AIDS Mortality

HIV-infected individuals can experience a variety of visual disturbances. For example, there is an increased prevalence of abnormal contrast sensitivity (the ability to distinguish between various shades of gray) in this population. One of the goals of ophthalmologists interested in AIDS is to identify relationships between such HIV-related vision abnormalities and non-ocular HIV-related disorders. An on-going study, the Longitudinal Studies of Ocular Complications of AIDS (LSOCA), begins to address that issue. Study results demonstrate that abnormal contrast sensitivity is a risk

factor for death among people with AIDS, and that this risk is independent of other stage-of-disease clinical indices that are known predictors of increased mortality, such as duration of AIDS, decreased CD4+ T-lymphocyte count, or increased plasma HIV RNA level. Deaths continue to occur among people with AIDS, even among those who are taking antiretroviral drugs that suppress HIV.

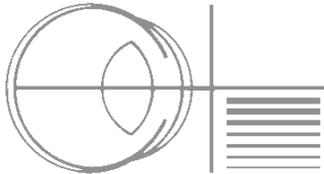
Gary N. Holland, MD, Jack H. Skirball Professor of Ocular Inflammatory Disease, who is a member of the SOCA Research

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▲ Counter-clockwise from top right, injectable fillers were used to treat 1) lower orbital rim hollows in a patient who underwent upper lid ptosis surgery, 2) lower eyelid retraction in an infant, and 3) Graves eyelid retraction, treated in the office with filler to stretch the levator for temporary improvement

that many of the more invasive operations have become almost obsolete. In the past, for example, orbital decompression surgery to treat the bulging resulting from Graves eye disease involved major surgery with relatively large incisions around the eye. Dr. Goldberg's group has transformed the technique so that it is done under local anesthesia through small incisions that are essentially invisible, and with a much more rapid recovery.

Patients seeking periorbital surgery for cosmetic purposes are also benefiting from the trend. "We are able to do more and more rejuvenations of the area around the eye or the upper face using hidden or tiny incisions," Dr. Goldberg says. For upper- and lower-facelift patients, tissues that could previously be accessed only through a large cut are now reached through an incision less than an inch long using endoscopes, cable sutures and other techniques. The result: faster rehabilitation and less damage to the normal tissue.

### **Injectable Technique Restores Volume**

The growth of non-surgical treatments represents an even more dramatic shift. This has occurred through hyaluronic acid gels that can be injected in a simple office procedure and used as volume fillers for the wide spectrum of patients with

cosmetic or functional concerns related to loss or collapse of tissue volume. "With this technique we have been able to achieve remarkable improvements in comfort, vision, and appearance," Dr. Goldberg says. "In many cases the results are better than what we would have achieved with surgery."

The U.S. Food and Drug Administration approved the first hyaluronic acid filler in 2003. At the time, few thought there would be applications around the eye, but Dr. Goldberg felt differently and began to develop techniques involving periorbital injections to address issues of volume loss or collapse. "I have long believed that volume collapse is a significant contributor to many aesthetic and functional eyelid problems," Dr. Goldberg explains. "The injectable fillers allow us to address this volume using a nonsurgical, minimally invasive approach." In addition to replacing volume, the gels can stretch the tissues when that is needed.

One of the main drivers of the new approach has been the growing understanding that much of facial aging relates to volume loss. Dr. Goldberg estimates that for as many as two-thirds of patients referred to him for aesthetic concerns, volume loss is the culprit and the filler gel can be used to address the problem in a safe and predictable manner.

The fillers are not permanent – but they can last a year or more in the eyelid area, and as the effect fades, it can be maintained through the use of additional fillers. "These gels are absorbable and made of sugar molecules that are already in the body, which makes them the safest fillers available," Dr. Goldberg explains. "I see many patients who have been hoping to find a non-surgical option, and they are delighted to hear that we can do this." 

## UCLA Study Links Smoking to Increased Risk for AMD

A study finds that even after age 80, smoking continues to increase one's risk for age-related macular degeneration (AMD). UCLA researchers reported that women who smoke had an 11 percent higher rate of AMD than other women their own age, while the risk of developing the condition became five-and-a-half times higher for women over the age of 80 when compared to women the same age who didn't smoke. Lead author and Fran and Ray Stark Foundation Professor of Ophthalmology at UCLA's Jules Stein Eye Institute, Anne L. Coleman, MD, PhD, commented that study findings indicate that "it's never too late to quit smoking. We found that even older people's eyes will benefit from kicking the habit."

The study evaluated a group of 1,958 women who had retinal images taken at five-year intervals, starting with a baseline exam at 78-years-old. The



◀ Eye with tissue atrophy (yellow region) in macula

images were compared to check the appearance of AMD and to see if smoking affected the person's likelihood of developing the condition. Four percent of participants were smokers.

Dr. Coleman explained, "Age is the strongest predictor for AMD, yet most of the research in this field has been conducted in people younger than 75 years. Our population was considerably

older than those previously studied. This research provides the first accurate snapshot of how smoking affects AMD risk later in life." Talking about the results, Dr Coleman added: "We saw a slightly higher rate of AMD in women after age 80, but the rate was dramatically higher in older women who smoked. The bottom line is that AMD risk increases with age. And if you smoke, your risk of developing the disease rises even further."

*The National Eye Institute and the National Institute on Aging funded the research. Findings were published in the January 2010 issue of "The American Journal of Ophthalmology."*

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### Contrast Sensitivity Linked to AIDS Mortality



Group and lead author of the current study notes, "Investigations to date have identified links between altered contrast sensitivity and

mortality due to trauma-related deaths in motor vehicle accidents or in the setting of other disease states, such as diabetes mellitus. The current study is the first to demonstrate a similar relationship between abnormal contrast sensitivity in people with AIDS and an increased mortality risk."

It has been suspected that HIV-related vision changes are caused by damage to retinal blood vessels. Many of the deaths among LSOCA participants were attributed to diseases in which there are damaged blood vessels as well, such as heart attacks, which suggests the basis for the relationship. "Contrast sensitivity may represent another useful marker of a global increase in risk for death in the AIDS population," according to Dr. Holland. "Continued study of the relationship may have implications for

understanding the systemic effects of long-term HIV infection, particularly on organs susceptible to microvascular damage, such as the brain, heart, and kidney. It may even lead to better methods for monitoring the health of HIV-infected individuals."

*LSOCA is an on-going, prospective, multi-center, NIH-supported observational cohort study designed to collect data on ophthalmic conditions associated with AIDS that have been seen since the introduction of highly active antiretroviral therapies. Enrollment began in September 1998. Study participants must have a diagnosis of AIDS, as defined by 1993 Centers for Disease Control and Prevention criteria. The current study includes data collected through December 31, 2008.*

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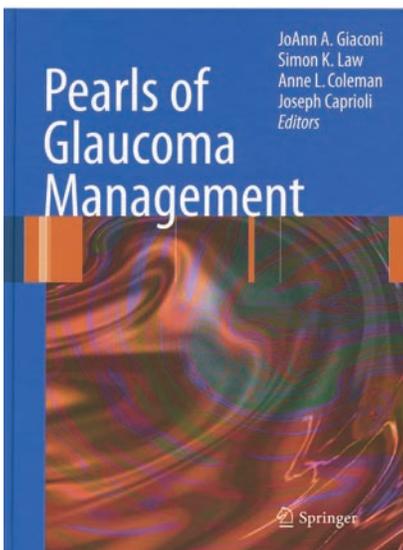


AARP The Magazine ranks Jules Stein Eye Institute as No. 3 in the country for complex eye-care referrals.



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## UCLA Glaucoma Faculty Publish Book



*“Pearls of Glaucoma Management,” a new book by glaucoma faculty at the Jules Stein Eye Institute, provides general ophthalmologists and glaucoma specialists with valuable information and evidence-based recommendations for clinical practice. Chief editor JoAnn A. Giaconi, MD, along with co-editors Joseph Caprioli, MD, Anne L. Coleman, MD, PhD, and Simon K. Law, MD, PharmD, asked questions of the world’s experts in glaucoma. The answers provided are based on the literature and the authors’ own experiences to explain how they prefer to manage patients and specific problems in glaucoma to improve treatment outcomes.*



Giaconi JA, Law SK, Coleman AL, Caprioli J. Pearls of Glaucoma Management, Springer-Verlag New York, LLC, January 2010

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