Graves’ Disease – Eyelid Surgery
By Clinton McCord, MD, FACS

The inflammation that occurs with Graves’ disease can cause severe scarring of the muscles in the eyelids and extra fat and tissue deposits which cause the eyelids to be puffy and retracts the eyelids away from the eye causing exposure of the eye. These changes alter a person’s appearance in a disturbing way but also introduces a medical problem of exposure of the eye and cornea which can threaten vision. Many people will have exposure to the degree that it causes their eyes to be very gritty and watery and discomfort is their major problem. In some people, however, dry spots will actually form on the surface of the eye causing exposure keratitis which can lead to scarring and damage to the eye. Eyelid surgery can improve this problem so that the eyelids are able to protect the eye more adequately and an improvement in appearance can also be obtained. Before surgery many people with this exposure situation will have the need to squint (usually unconsciously) in order to keep their eyes from being so dry.

Upper Lid Surgery
To help this problem, surgical loosening of the upper eyelid retractor muscles (levator and Muller’s muscle) and release of scar tissue in the muscles can allow the upper lids to lower to a more normal level to protect the cornea. At the same time that this is done the excessive fatty tissue and skin folding can also be trimmed to improve appearance. There are formulas that are used during surgery to determine the amount of loosening of the muscles required but there are significant differences between people in the amount of scarring that occurs and there are even differences between the different eyelids in the same person. Following surgery there is always a lot of improvement, many times the desired amount, but in many cases additional “touch up” surgery is needed to get the positioning as exact as possible.

Lower Lid Surgery
After the inflammation of Graves’ disease, the same puffiness and retraction can occur in the lower lids so that the lower lids are pulled downwards exposing the white portion of the eye (“scleral show”). With this situation, an unhealthy exposure of the eye can also occur and surgical procedures can improve the protection of and the appearance of the lower lid. With lower lid surgery the scarred muscle in the lower lid (capsulo-palpebral fascia) can be loosened and at the same time extra skin folding and fat can also be trimmed as in the upper lid. To be able to reposition the edge of the lower lid upward to improve the “scleral show,” the lateral tendon in the lower lid must be tightened and a spacer material must be inserted within the eyelid (usually tiny ear cartilage strips) acting as “internal struts.” These internal struts are attached to the cartilage that is normally present in the eyelid and are
not noticeable externally. The type of procedure will allow the eyelid to resume its more normal position to protect the eye and have marked improvement in appearance.

Problems Involved with Eyelid Surgery for Thyroid Patients

Bruising and Swelling

There is usually a good bit more bruising and swelling with surgery for thyroid eye problems than the standard “baggy eyelid operation” (blepharoplasty). The reason for this is that thyroid patients have more reactive tissue and tend to swell more, and because the surgery is more involved. In some situations low dose cortisone medication can be used to reduce the amount of tissue reaction with the surgery. Ice packs and head of bed elevation help to control bruising and swelling.

Post Operative Stiffness of the Eyelids

Even though the eyelids are improved in position so that they can protect the eye and have a more normal appearance with the thinning down of the lids, the stiffness incurred by the scar tissue will persist to some degree. It is impossible to remove every last bit of scar tissue imposed by the thyroid problem so despite a much more normal and better protection of the eye, there will continue to be some stiffness of the lids.

Need for General Anesthesia for Surgery

If a person is having one set of eyelids corrected (usually the upper lids) the procedure can be performed entirely with local anesthesia and deep sedation as an outpatient. If upper and lower lids are done together, then because this procedure is so much longer and more complex, a general anesthesia is recommended.

Post Operative Care

A person will be much more ambulatory after eyelid surgery, although application of ice packs and medication will be necessary. Stitches will be removed a week after surgery and a 4 to 6 week checkup will be scheduled.

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