Procedure Guidelines for **Lower Eyelid Plastic Surgery (Blepharoplasty) using Radiofrequency**

**Indications / Contraindications**

Lower eyelid surgery is performed under local anesthesia. Aside from correcting excessive skin/wrinkles, the objective of lower eyelid surgery is also the removal of prolapsing orbital fat (“lacrimal or tear sacs”). In general, one large and two small fat compartments appear at the lower eyelid. The large central fat compartment is flanked by the small temporal and medial fat compartments. In old patients, these compartments are almost always confluent and cannot always be distinguished. Relatively large blood vessels run through the fatty tissue. They must be carefully coagulated during surgery to prevent undesired bleeding.

**Patient Preparation**

When planning lower eyelid surgery (blepharoplasty), the functional aspects of the lower eyelid must receive special attention. The lower eyelid must fit completely and firmly against the globe of the eye. Otherwise, there will be a risk of having to deal with an ectropion even after small skin resections. This is an extremely aggravating complication. Before surgery the elasticity of the lower eyelid should be tested (e.g. by way of snap test, Fig. 1); the elasticity should be sufficient to minimize the ectropion risk. These concerns are also ample reason for approaching the necessary skin resection with due caution. Snap Test: The lower eyelid is lifted from the globe and released. The lower lid should immediately snap back. After one second at the latest, the lower eyelid should again tightly nestle around the globe. If this is not the case, it is essential to proceed with increased caution during lower eyelid surgery.

**Intervention**

The skin incision is performed using a short ARROW improves monopolar microdissection electrode (e.g. REF 36 03 21) starting directly underneath the eyelashes and medially at the level of the lacrimal punctum; laterally the incision slants downward and ends in a skin fold (Fig. 2). The electrode should glide through the tissue without any resistance. The eyelashes must be kept out of the way while making the incision. If appropriate, a subcutaneous tunnel may first be formed from the lateral side using scissors. Then, this tunnel will be severed. In the next step, skin of the orbicularis oculi muscle is dissected and prepared (skin flap technique, Fig. 3). The surgeon must be cautious not to dissect the skin too far downward to avoid uncontrollable pitted contractures. The skin-muscle flap technique is the preferable option if for esthetic reasons the dissection must be made far to the caudal side. An incision is made 10 mm below the eyelid margin and the orbital septum is prepared. All bleeding must be coagulated to prevent hematomas in the preseptal space. In the event a fat prolapse was diagnosed before surgery, bulging fatty tissue is removed using e.g. small scissors while light pressure is exerted on the globe of the eye (Fig. 4). The bulging fatty tissue is removed after careful bipolar coagulation of all vessels (e.g. REF 78 01 48SG). If appropriate, a muscle strip is carefully excised and if necessary the orbicularis oculi muscle may be laterally attached to the orbital margin to guard against an ectropion. Afterward, the excessive skin is carefully resected. For the procedure, the patient is asked to look upward and open the mouth (Fig. 5). Following subtle hemostasis, the incision is closed using 6-0 monofilament thread and intradermal suturing.

**Postoperative Treatment**

If at all possible, the patient should lie flat for several hours after surgery while the surgical site is cooled for 15 minutes every hour using a cooling aggregate to prevent edema and hematoma formation.

**Settings**

For CURIS® 4 MHz radiofrequency generator (REF: 36 01 00-01)

- **Dermal incision ARROW improves** Monop. CUT 1
  - Output: 10-20 watts
- **Skin preparation ARROW improves** Monop. CUT 2
  - Output: 15-23 watts
- **SuperGliss® non-stick** bipolar PRECISE
  - Output: 23 watts
- **Other accessories**:
  - Monopolar handpiece (REF: 36 07 04), cable (REF: 36 02 38), single-use patient plate (REF: 36 02 22)

For CURIS® 4 MHz radiofrequency generator (REF: 36 01 00-01)

- **Dermal incision ARROW improves** Monop. CUT 1
  - Output: 25-36 watts
- **Skin preparation ARROW improves** Monop. CUT 2
  - Output: 30-50 watts
- **SuperGliss® non-stick** bipolar PRECISE
  - Output: 23 watts
- **Other accessories**:
  - Monopolar handpiece (REF: 36 07 04), cable (REF: 36 02 38), single-use patient plate (REF: 36 02 22)

* Please consider that this information is not meant to serve as a detailed treatment guide. Always start with the lowest settings and adjust them accordingly.

**Disclaimer:** These procedure guidelines have been carefully researched and compiled with the help of specialist physicians. They are not meant to serve as a detailed treatment guide. They do not replace the user instructions for the medical devices used. Sutter accepts no liability for the treatment results beyond legal regulations.