

Management of Rhinophyma Using Radiofrequency Surgery of the Nose

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To date, surgery remains the primary option for the treatment of rhinophyma. Over the last few years many different surgical techniques have been described. With the introduction of a radiofrequency monopolar cutting probe, effective, easy-to-handle and fast tissue resection is now possible. The probe can also be used for coagulation, thus producing excellent visibility of the surgical field and minimizing damage to the surrounding tissue. Specially designed probes facilitate the reshaping and sculpturing of the nose and help to even out irregularities on the skin surface.

Introduction: Rhinophyma, first described in 1845 by Ferdinand von Hebra, represents the most severe expression of the final stage of acne rosacea. It is characterized by a benign, slowly growing enlargement of the lower third of the nose with irregular thickening and grotesque nodular formation of the hypertrophic nasal skin. Histology is mandatory to rule out possibly underlying skin cancer. Although the bony and the cartilaginous framework of the nose are unaffected, the aesthetic subunits of the nose can be distorted. Additionally, functional impairment in terms of nasal airway obstruction can arise. Multiple surgical approaches to the treatment of rhinophyma have been described, some carrying the risk of persistent intraoperative bleeding due to the exceptional vascularity of the nose. Controlling haemorrhage by electrocautery or laser carries the danger of damaging the underlying cartilage by thermal injury.

Case study: A 75-year old patient with a history of progressive hypertrophy of his nose presented himself at our clinic. In his younger years he was diagnosed with acne rosacea. Over the years his nose slowly enlarged and lost its normal contours. Physical examination revealed a hypertrophy of the sebaceous and subcutaneous tissue of the lower third of the nose, primarily of the tip of the nose and of the alar region. Purulent and keratinous material could easily be squeezed from the nose. To objectively compare cosmetic results, photographs were taken from the anterior-posterior and side view before surgery, during and immediately after RF resection and the follow-up visits.

Methods: Radiofrequency tissue resection of the rhinophyma was performed on an outpatient basis under local anesthesia. The patient rested on the OR table in a slightly upright position. The nose was anesthetized by injecting a ring block around the entire nose using 1% prilocaine with 1:200.000 epinephrine. An additional local anesthetic was applied to the lateral nasal walls and the columella, achieving full anesthesia within 10 minutes. Electrosurgical resection of the rhinophyma was performed with the CURIS®

radiofrequency unit (Sutter Medizintechnik, Freiburg/Germany) in the "Cut 2" monopolar mode at an intensity of 34 watts and in the "Softspray" mode at an intensity of 40 watts. With a triangular-shaped wire loop and a round-shaped wire-loop electrode of 10 mm in diameter (both Sutter Medizintechnik, Freiburg/Germany) the rhinophyma was first delaminated in thin layers down to the level at which the skin appeared normal. Great care was taken to preserve pilosebaceous units to prevent scarring. After excising redundant tissue, sculpturing of the nasal contour was achieved by using a ball electrode of 3 mm diameter (Sutter Medizintechnik, Freiburg/Germany) to even out irregularities on the nasal surface.

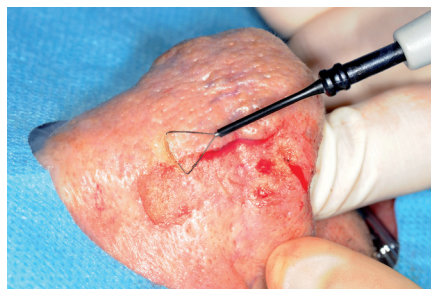


Fig. 1: Radiofrequency monopolar resection of a rhinophyma while carefully preserving pilosebaceous units to prevent scarring.

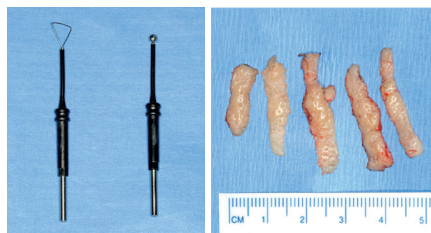


Fig. 2a: Sutter triangle-shaped wire loop electrode (REF 360812) and Sutter ball electrode (REF 360817).

2b: Thin layers of resected rhinophyma tissue for histopathologic analysis.

Results: The patient tolerated the procedure well and was closely monitored by regular outpatient follow-up examinations for 2 months after the intervention. No significant pain was reported in the postoperative period. Already 2 weeks later the patient's nasal skin started to re-epithelize. Neither wound infections nor scarring nor pigmentary disturbances occurred. The patient claims to have

gained a better quality of life as he no longer tends to avoid social interactions as he used to do before.



Fig. 3: Sculpturing of the nasal contour by evening surface irregularities.

Conclusion: Radiofrequency monopolar surgery in the treatment of rhinophyma has proven to be an easy-to handle, fast and efficient treatment modality. The combination of monopolar cutting and coagulation at the same time not only facilitates the re-shaping and sculpturing of the nose but also guarantees gentle haemostasis with excellent visibility of the surgical field.



Fig. 4: CURIS® RF unit (Sutter, Germany)



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Featured Product



360812 – Loop electrodes

Qty.	REF	Description
5	360812	Wire loop electrode malleable, triangular 9 mm, Tungsten 0.2 mm



360815 – Loop electrodes

Qty.	REF	Description
5	360815	Wire loop electrode malleable, Ø 8 mm, Tungsten 0,2 mm



360817 – Ball electrodes

Qty.	REF	Description
5	360817	Ball electrode malleable, Ø 3 mm



360804 – Needle electrodes

Qty.	REF	Description
5	360804	Needle electrode fine, straight, malleable, Ø 0,5 mm



780175SG – SuperGliss® non-stick

Qty.	REF	Description
1	780175SG	SuperGliss® non-stick bipolar forceps, 1.0 mm tip, angled, working length 60 mm



870010 – CURIS® basic set with single-use patient plates

Qty.	REF	Description
1	360100-01	CURIS® radiofrequency generator (incl. main cord, user's manual and test protocol)
1	360110	Footswitch two pedals for CURIS® (cut & coag), 4 m cable
1	370154L	Bipolar cable for CURIS®, length 3 m
1	360704	Monopolar handpiece (pencil) cut & coag, shaft 2.4 mm, cable 3 m
1	360238	Cable for single use patient plates, length 3 m
1 (x50)	360222	Safety patient plates, single use, packing 5 x 10 pcs. (not shown)

*Optional model

CURIS® basic set with re-usable patient plate (REF 870020)

Unit settings / Other accessories

CURIS®
 Loop electrode: Monopolar CUT 2 or SOFTSPRAY
 Power adjustment: 30 to 40 watts
 Ball electrode: Monopolar CONTACT Coag
 Power adjustment: 5 to 8 watts
 Forceps: Bipolar PRECISE
 Power adjustment: 15 to 30 watts

Other accessories:

Optional: Rubber patient plate (REF: 360226)



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