

Radiofrequency Tonsillotomy in Children with CURIS® 4 MHz Radiofrequency Generator – How I do it

Stephan Grupp



Fig. 1: CURIS® 4 MHz radiofrequency generator (REF 36 01 00-01)

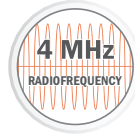


Fig. 2: ARROWtip™ monopolar microdissection electrode (REF 36 03 42)



Fig. 3: SuperGliss® non-stick bipolar forceps (REF 78 01 75 SG)

Introduction: The pediatric syndrome of obstructive sleep apnea (OSAS) is a frequent disorder in children most commonly caused by adenotonsillar hyperplasia. Restless sleep, concentration disorders, and daytime sleepiness, often seen as hyperactivity in children, are all consequences of OSAS. The treatment of choice is the volume reduction of lymphatic tissue in the pharynx. In recent years tonsillectomy has been increasingly replaced by a partial removal of tonsillar tissue (tonsillotomy). Different methods for this kind of treatment are being used around the world. In our clinic, one method has proven itself most useful – radiofrequency assisted tonsillotomy with the CURIS® impedance controlled 4 MHz radiofrequency generator.

Method: Tonsillotomy is being performed in children with pediatric OSAS and a tonsillar hyperplasia of greater or equal Brodsky III°. Usually the surgery is combined with an adenotomy. In most cases, the procedure can

be performed on an outpatient basis. Patients are being observed by the anesthesiologist for three to four hours postoperatively. They receive a 24-hour emergency telephone number from the respective surgeon as well as adequate pain medication. In the days following the procedure, the operating surgeon sees the patient regularly.

The surgery is performed under general anesthesia. After reinclination, the mouth is opened with a Würzburg tongue blade which is fixated to a chest support (Lübeck model). For cutting, we use an ARROWtip™ monopolar microdissection electrode with a 45° angle and the CURIS® 4 MHz radiofrequency generator set at 25 watts. We use the pre-programming feature of the device, which helps in quick set-up. The tonsillotomy is performed using goggles (magnification 2.4x). Care has to be taken that only the protruding tonsillar tissue is removed, ideally this accounts for about 50 % of total tonsillar volume. It is particularly important that the tonsillar capsule remains

intact during dissection. Thanks to the 4 MHz radiofrequency technology of the CURIS®, the lateral heat spread is potentially less and accommodates us in this regard.¹ Additional bipolar coagulation is rarely needed. However, bipolar forceps are always connected to the radiofrequency generator and ready-to-use. After the resection is complete, meticulous inspection for complete hemostasis is performed and bleeders are coagulated, if need be.

Conclusion: Tonsillotomy with the CURIS® 4 MHz radiofrequency generator in combination with the ARROWtip™ monopolar microdissection electrodes (REF 36 03 42) has proven to be the standard treatment method in our clinic for years. The ease of use for both OR staff and surgeons is to be emphasized.

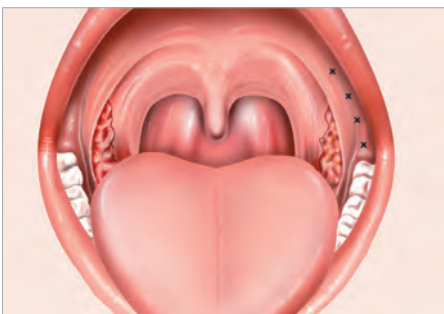


Fig. 4: Puncture sites for infiltration of local anesthetic

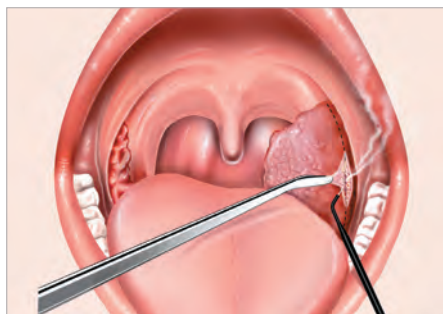


Fig. 5: The protruding part of the tonsil is dissected along the incision line and parallel to the palatal pillar.



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References: 1. Hoffmann TK et al. Comparative analysis of resection tools suited for transoral robot-assisted surgery. *European Archives Oto-Rhino-Laryngology*. 2014; 271 (5): 1207-1213

Featured Products



Qty.	REF	Description
2	36 03 42	ARROWtip™ monopolar microdissection electrode Ø 0.3 mm, 45° angled, total length: 107 mm

134° C autoclavable  



alternative product



Qty.	REF	Description
2	36 03 65	Monopolar electrode for RF tonsillotomy 0.25 x 10 mm, 45° angled, total length: 112 mm

134° C autoclavable  



Qty.	REF	Description
1	78 01 75SG	SuperGliss® non-stick bipolar forceps, length: 19 cm, angled tips: 1 mm

134° C autoclavable  



[REF 87 00 10] **CURIS®** 4 MHz radiofrequency generator
basic set with single-use patient plates

Qty.	REF	Description
1	36 01 00-01	CURIS® 4 MHz radiofrequency generator (incl. mains cord, user manual and test protocol)
1	36 01 10	Foot switch two pedals for CURIS®, cable: 4 m
1	37 01 54L	Bipolar cable for CURIS®, length: 3 m
1	36 07 04	Monopolar handpiece (pencil) cut & coag, shaft 2.4 mm, cable: 3 m
1	36 02 38	Cable for single-use patient plates, length: 3 m
1 (x50)	12 80H	Patient plates, single-use, 5 x 10 pcs. (not shown)

Unit settings / Other accessories*

CURIS®
4 MHz radiofrequency generator

ARROWtip™: Monopolar CUT 2
Power adjustment: 20 to 35 watts

SuperGliss® non-stick: Bipolar PRECISE
Power adjustment: 15 to 30 watts



Valid for the **CURIS®**
with the orange label.



CURIS®
4 MHz radiofrequency generator

ARROWtip™: Monopolar CUT 2
Power adjustment: 25 to 46 watts

SuperGliss® non-stick: Bipolar PRECISE
Power adjustment: 15 to 30 watts

* Please consider that this information is not meant to serve as a detailed treatment guide. Always adjust according to patient and application.

Product availability is subject to regulatory approval in individual markets. Products may therefore not be available in all markets. Lengths for orientation purposes; may vary slightly.



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