



Frenulotomy Using the H14-NS Handpiece with the Thin Chisel Fibertip

Tomaž Ivanušič

Introduction:

Er:YAG laser technology utilizing the H14-NS handpiece with Thin Chisel fibertip provides a highly controlled modality for minimally invasive soft-tissue surgery. By optimizing energy delivery at a wavelength of 2940 nm, precise micro-ablative cutting is achieved with simultaneous superficial vaporization and localized disinfection. Appropriate settings ensure safe and accurate tissue modification, significantly minimizing mechanical stress on surrounding capillaries and reducing bleeding for better surgical field visualization.

Laser	LightWalker AT S
Wavelength	2940 nm Er:YAG
Handpiece	H14-NS
Spot size	1.3 x 0.15 mm
Pulse mode	SP
Energy	40 mJ
Frequency	40 Hz
Water/Air	2/2



Dr. Tomaž Ivanušič graduated from the University of Ljubljana's Faculty of Medicine in Slovenia in 2017. After graduation, he completed a one-year internship, where he gained experience in different dental specialties. Even as a student, he actively participated in international congresses and events. In 2018, he was selected to join a group of 16 promising young dentists who attended an advanced course in aesthetic dentistry in Lisbon in Portugal. Dr. Ivanušič currently practices in his own private clinic in Slovenia, mostly performing endodontic, periodontic and prosthodontic treatments with a special focus on laser and aesthetic dentistry. In 2021 he was chosen as the best dentist in the country. He has finished the LA&HA master in laser dentistry and since 2022 he has been a lecturer and clinical expert on this program.

CLINICAL CASE:

A 19-year-old systemically healthy patient presented with an indication for a frenulotomy before orthodontic treatment. To ensure optimal patient comfort, local anesthesia was administered using Septanest with epinephrine (containing 40 mg/mL of articaine hydrochloride combined with 0.01 mg/mL of epinephrine).

The surgical procedure was performed using the H14-NS handpiece with a Thin Chisel fibertip. The entire surgical intervention was highly efficient, completed in just 4 minutes. The Thin Chisel fibertip allowed for smooth and precise tissue cutting. This resulted in an optimal, bloodless surgical field and minimal intraoperative trauma.

Postoperative healing was completely uneventful with no complications. The patient reported excellent comfort, and rapid, complete soft tissue healing was achieved.

Before



During



1 week follow up



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