



## Removal of Skin Papilloma using the LightWalker Dental Laser

Natasa Prebil, DMD

### Introduction:

A 45 year old male patient came to my dental surgery to have his dental health checked. His teeth had been in good condition. He was a non-smoker, had been generally healthy and reported no allergies or long-term use of medications or chronic diseases. No allergies or dermatological diseases were observed.

The patient complained of frequent irritation and associated discomfort through the repeated injuries of a lesion that occurred while shaving in the perioral region. He had already consulted a dermatologist and a surgeon for skin cancer screening. They concluded that it was a benign lesion, Papilloma reg. labi superior sin. and proposed laser treatment instead of conventional surgery because of the lesion's position in the naso-labial fold. The lesion was a round, light-brown colored papule, around 5 mm big, with a sharply defined border and a dome-shaped, cobblestone-like surface and soft consistency. The patient didn't know how long it had persisted, but certainly more than 30 years. The lesion remained unchanged for over the years.

Laser	LightWalker AT	
	Step 1	Step 2
Wavelength	2940 nm Er:YAG	2940 nm Er:YAG
Handpiece	R15	R15
Spot size	3 mm	3 mm
Fluence (J/cm <sup>2</sup> )	7	7
Frequency (Hz)	20	10
Pulse mode	SP	SP
Water/Air	/	
Passes/technique	Ablation of top layers	Ablation of lower layers (approaching the level of the skin)
Sessions	1	



*Dr. Nataša Prebil graduated with a degree in Stomatology in 1996 from the University of Ljubljana, Slovenia, and subsequently started her career as pediatric dentist. She began working with patients with special needs and is now working mainly with adult patients. In 2006 she opened her own private clinic, followed by a second clinic in 2013. Dr. Prebil began working with dental lasers in 2009 and completed the LA&HA Dental Master's Program in Laser Dentistry in 2018. She uses lasers primarily in oral surgery, periodontics and endodontics, as well as in facial aesthetics.*

## CLINICAL CASE:

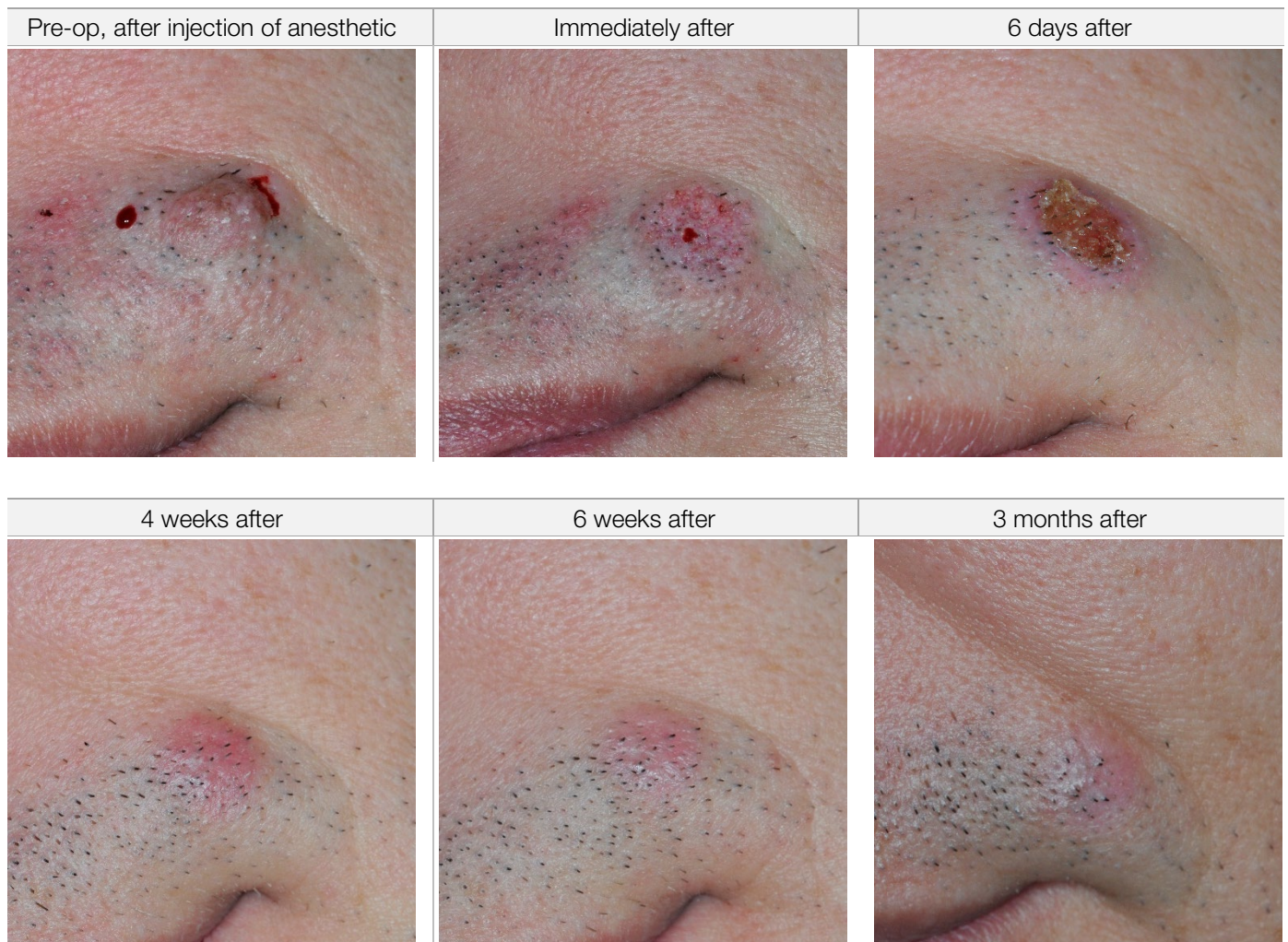
The working field was disinfected with Spitaderm solution (ingredients; Propanol, chlorhexidine digluconate, hydrogen peroxide) and then cleaned with physiological solution and dried out at the end. A local anesthetic was infiltrated into the tissue surrounding the lesion (0.2 ml 3% Scandonest, Mepivacaine HCl injection).

The Er:YAG wavelength was used with an R15 handpiece using a 3 mm spot size, starting with 7 J/cm<sup>2</sup> fluence, 20 Hz frequency, and SP mode. SP mode was chosen due to its greater coagulatory effect (minor bleeding was expected) compared to shorter pulse durations. When almost all the lesion had been removed, the frequency was decreased to 10 Hz and finished with fine ablation. The lesion was ablated to the level of the skin. Debris was sponged off by applying a wet sponge, damped in physiological solution during the ablation procedure. This is important for efficient ablation, reducing eschar and rehydrating the skin. Total time of the procedure was approx. 5 minutes.

The lesion was vaporized subsequently. No pain and bleeding were encountered during treatment. Immediately after the procedure, light bleeding appeared. I pressed with a gauze for a few minutes to stop the bleeding and applied a Diprogenta cream (ingredients betamethasone, gentamicin), protected with a plaster. The patient was instructed to apply Bepanthen antiseptic cream for a few days following and protect the area of the treatment with a patch if necessary. I also recommended to avoid sun exposure and to not remove the thin crust which would form.

There were no local complications resulting from the procedure. The patient was followed up at 6 days and checked again 4 and 6 weeks after the procedure. At the 6-day recall there were no signs of inflammation, a thin crust persisted and at the margin the formation of new thin pinkish skin was observed. At the 4 and 6 week recalls, pinkish color skin was observed that became normally tanned over time.

Er:YAG laser is an effective tool for painless removal of benign skin lesions such as papilloma. With a careful approach, ablation with Er:YAG results in quick healing without scarring. This approach offers a better and more aesthetic alternative to standard excision.



Published by the Laser and Health Academy. All rights reserved. © 2021

Disclaimer: The intent of this Laser and Health Academy publication is to facilitate an exchange of information on the views, research results, and clinical experiences within the medical laser community. The contents of this publication are the sole responsibility of the authors and may not in any circumstances be regarded as official product information by the medical equipment manufacturers. When in doubt please check with the manufacturers whether a specific product or application has been approved or cleared to be marketed and sold in your country.

