



Diode Laser-Assisted Operculectomy Using a 1064/1940 nm tandem mode

Tomaž Ivanušič

Introduction:

Fotona's unique TANDEM technology delivers the synergistic effects of multiple diode laser wavelengths by automatically switching between different wavelengths throughout a treatment. This enables soft-tissue ablation with simultaneous coagulation and disinfection, or simultaneous photobiomodulation of the target tissue for superior treatment outcomes.

Laser	Fotona SkyPulse® – Multi 3 (10/19)
	Step 1
Wavelength	1940/1064 nm
Handpiece	R21-C3
Power	1940 nm: 1.2W, 1064: 1.8 W
Mode	CW
Pulse duration	1940 nm 50 ms, 1064 nm 50 ms
Sessions	1 session



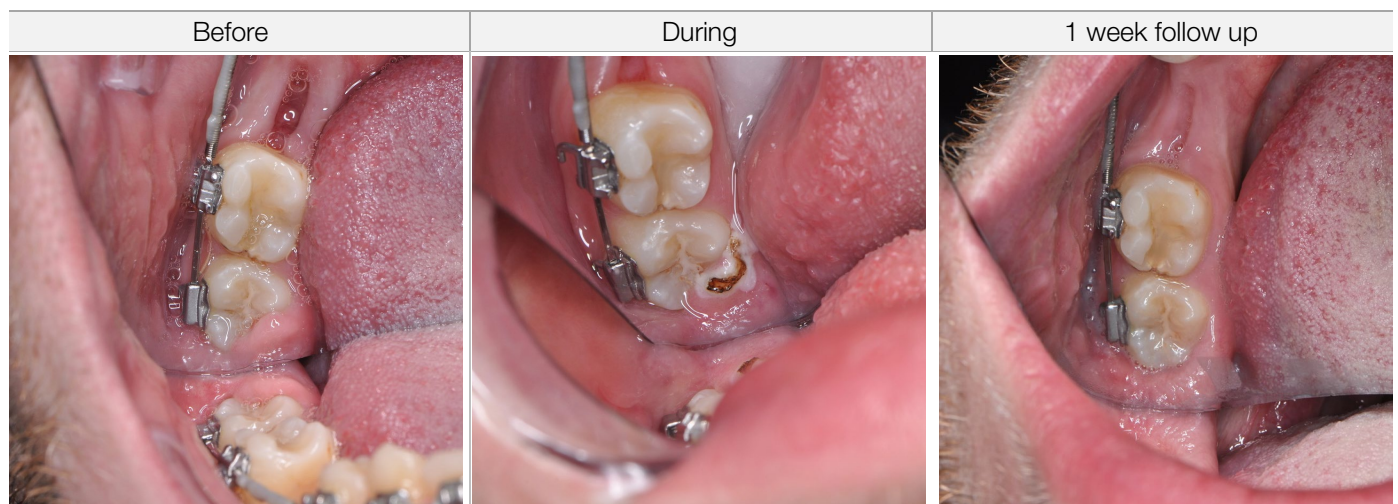
Dr. Tomaž Ivanušič graduated from the University of Ljubljana's Faculty of Medicine in Slovenia in 2017. After graduation, he completed a one-year internship, where he gained experience in different dental specialties. In 2018, he was selected to join a group of 16 young dentists who attended an advanced course in aesthetic dentistry in Lisbon, Portugal. Dr. Ivanušič currently practices in his own private clinic in Slovenia, mainly 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 completed the LA&HA Master in Laser Dentistry and since 2022 is a lecturer and clinical expert with this program.

CLINICAL CASE:

A 22-year-old systemically healthy patient with fixed wire braces presented with recurrent food accumulation and localized discomfort beneath the gingival tissue flap of a partially erupted mandibular molar. To eliminate the food trap and facilitate proper oral hygiene, an operculectomy was indicated. The procedure was performed using the SkyPulse® laser with 1940/1064 nm diode in Tandem mode. This modality allowed for smooth, precise tissue cutting and effective simultaneous coagulation. This resulted in an optimal, bloodless surgical field and minimal intraoperative trauma. The 1940 nm wavelength was primarily used for cutting while the 1064 nm wavelength was used for coagulation.

Postoperative healing was completely uneventful. The patient reported excellent comfort with no complications, and complete soft-tissue recovery was achieved. The food trap was successfully resolved, significantly improving the patient's ability to maintain oral hygiene around the orthodontic hardware.

Operculectomy using Tandem mode for cutting and coagulation provides an efficient, safe, and comfortable treatment option for managing soft tissues.



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