



R-SWEEPS Endodontic Treatment

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Introduction:

Endodontic treatment of second molars presents the clinician with several challenges, including complex morphology of the root canal system, difficult access in the mouth, as well as special cases involving immature teeth or canals that are wide.

Mechanical over-shaping and widening of the root canals is contraindicated in certain clinical cases, therefore, we must rely on irrigation methods to provide sufficient disinfection of the root canal system.

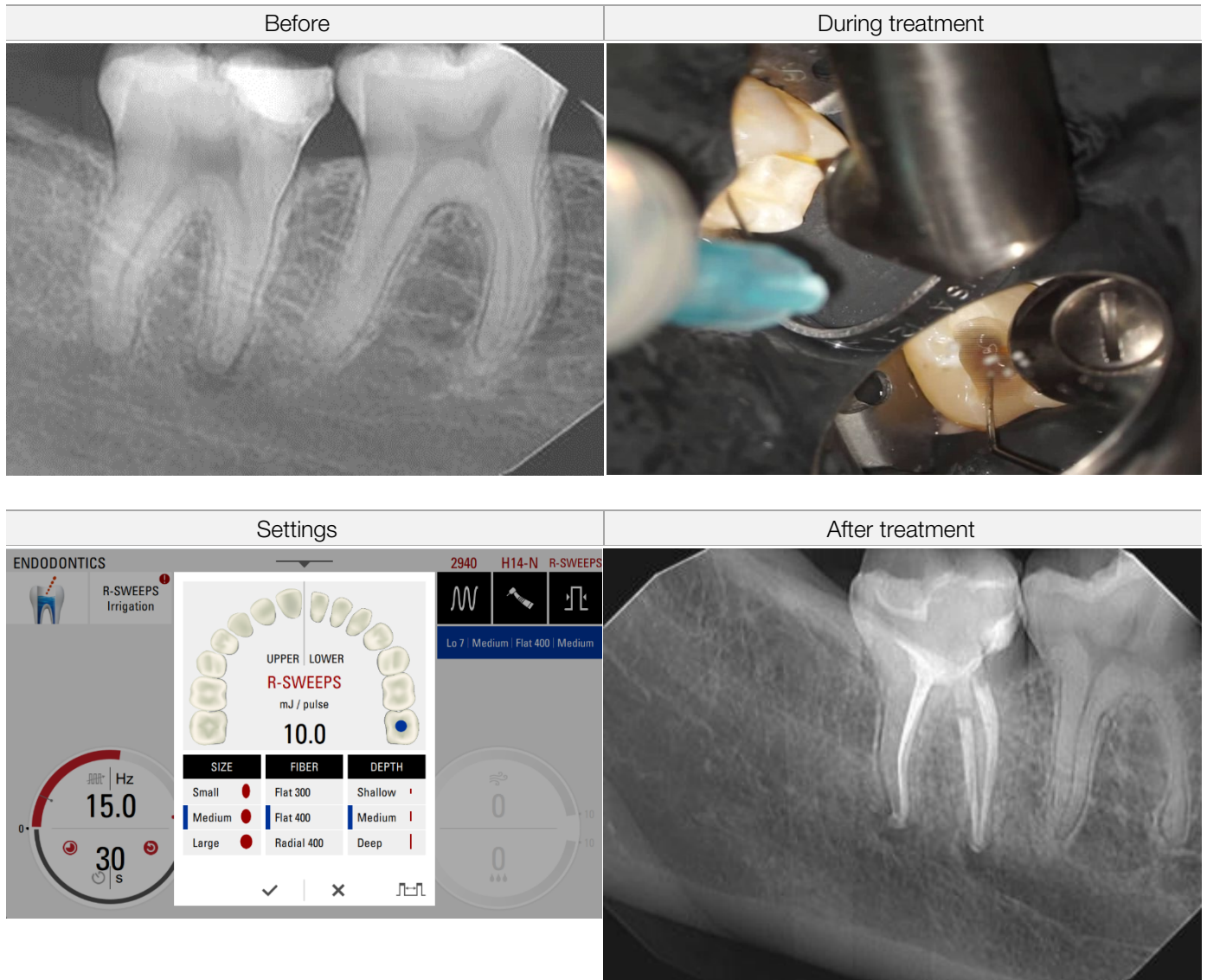
Laser	SkyPulse Multi-4
Wavelength	2940 nm
Handpiece	H14
Fiber tip	Flat SWEEPS 400/9
Pulse mode	R-SWEEPS
Energy	10 mJ
Power	0.3 W
Frequency	15 Hz
Water	0
Air	0
Passes/Repeats	1 time with 17% EDTA for 20 seconds, 2 times with 5.25% NaOCl for 20 seconds



Dr. Tomaž Ivanušič graduated from the University of Ljubljana's Faculty of Medicine in 2017. He currently works as dentist in a private clinic in Slovenia, mostly performing endodontic, restorative and periodontal treatments with a special focus on laser dentistry. As part of his daily workflow he uses the Fotona LightWalker® and develops new treatment possibilities. He also conducts lectures in preventive and restorative dentistry and works part time as researcher, lecturer and trainer at Fotona, where he has also been involved in research and development of new laser systems, in particular SkyPulse®.

CLINICAL CASE:

A 24-year-old female patient came to my clinic with dull pain in her lower right jaw. A diagnosis of symptomatic apical periodontitis in tooth 47 was established. After local anesthesia was applied and caries removed, pre-endodontic buildup was made. After that, I proceeded with endodontic treatment using mechanical shaping with the Mtwo rotary system up to an ISO30/6 file. The canal in the distal root was oval in shape. Final irrigation was made with the R-SWEEPS modality, with one cycle using 17% EDTA for 20 seconds and two cycles using 5.25% NaOCl for 20 seconds. For irrigation, a Flat SWEEPS 400/9 fiber tip positioned 4 mm deep in the irrigant was used. After that, the root canals were obturated with Totalfill BC sealer and gutta-percha using the single-cone technique. The patient reported no discomfort during the treatment and only mild discomfort on the day after.



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