Clinical Bulletin 2/08

Dr. Julio Lomelli is President of the Venezuelan Academy of Laser Dentistry.
He has performed over 25.000 laser treatments since he pioneered in 1997 with a Fotona laser, being the first Venezuelan laser dentist in his country.

Dr. Lomelli currently owns two Er:YAG and one Nd:YAG Fotona laser systems.

Tooth Hypersensitivity Treatment

Recommended Parameters:

Laser source:	Er:YAG (2940 nm)
VSP Mode:	SP
Pulse energy:	80 - 90 mJ
Frequency:	2 Hz
Handpiece:	R02
Water/Air Spray Setting:	None

Treatment procedure:

- Remove plaque on the affected tooth by gently rubbing the area with wet gauze or a prophylaxis brush.
- To establish a reference sensitivity measure and set a treatment goal, spray air on the affected area (the patient will react) and request that the patient quantifies the pain on a scale from 0 to 10.
- After explaining the procedure to the patient, establish a working distance for the treatment. Hold the handpiece approx. 6 cm from the affected tooth and while emitting the laser move the handpiece slowly from left to right while gradually closing in on the tooth. When the patient starts feeling sensitivity, immediately stop the advance towards the tooth. Move the handpiece slightly away from the tooth (0,5 to 1 cm) so that the patient does not feel overpowering hypersensitivity anymore.
- At the working distance, move the handpiece three times slowly from mesial to distal ends covering the neck area of the tooth and following the contour of the gum. Allow a slight overlap of each shot. Aim the laser beam as closely as possible to the gum border. If gum tissue is touched, it will harm at this low power setting.
- Stop the laser emission and with the patient's mouth closed rub the treated area in order to wet the zone with the patient's own saliva.
- Repeat the previous two steps twice more.
- Have the patient rinse gently with water at body temperature and test with the air spray to determine any decrease in sensitivity. Do not use the air spray at full strength. The process can be repeated 2 more times (3 passes each), after swishing, repeat the air test until no sensitivity is felt.
- If sensitivity remains, the procedure may be repeated after 48 hours in order completely eradicate sensitivity. In some cases the patient may declare to feel no sensitivity because of the dramatic decrease in sensitivity. But one day later the patient may realize that some sensitivity has returned and returns for a final touch-up. The procedure has been 100% effective and lasting on all types of patients with the exception in cases of Taurodontism due to the peculiar anatomy of the teeth.
- Patients must be instructed not to brush for one day, then brush for three days without toothpaste, so the calcium in the saliva will work on the affected area. After the fourth day we can polish using resin polishers in order to eliminate any roughness that may have remained, which can lead to increased adhesion of bacterial plaque.

This laser technique is shown to be extremely effective in treating hypersensitivity, although the etiology (brushing technique or other) must be addressed for a long-lasting result.

(Courtesy of Dr. Julio Lomelli)

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