

Treatment of Recalcitrant Melasma with Fractional Erbium:YAG, Fractional Q-Switched Nd:YAG and Long-Pulsed KTP Laser

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Melasma is a chronic inflammatory pigment disorder. The current treatment strategies aim at accelerating epidermal cell turnover, slowing down melanin synthesis, destroying melanin and melanosomes, reducing vascular inflammation and UV protection. Laser treatment has been conventionally used as a second or third line treatment for melasma, as the outcome is unpredictable and complications are often seen. It is not uncommon to encounter recalcitrant cases, which can be traumatizing for both the clients and the clinicians.

The use of the Fotona SP Dynamis Erbium:YAG laser in treating recalcitrant cases has been well documented. It is believed that the high affinity for water absorption of the Erbium:YAG laser can indirectly reduce melanin deposits from both the epidermis and dermis via the vaporization of melanocytes, inducement of melanophage disruption as well as improvement in cellular turnover. Interestingly, the Fotona StarWalker's fractional Q-Switched Nd:YAG laser with FS20A handpiece has been found to improve the outcome of recalcitrant melasma, albeit the actual mechanism remains unknown. The author postulates that this most likely resembles what is known in the case of the Erbium:YAG laser.

The introduction of Fotona StarWalker's VERDE long-pulsed KTP laser is indeed a game changing innovation. The use of the long-pulsed KTP laser in melasma has been previously documented, but such evidence is limited due to the scarcity of the technology worldwide. VERDE KTP utilizes photothermolysis, as opposed to a photoacoustic effect, and is thereby a safe treatment for melasma of epidermal distribution. The author opined that a combination of Fotona SP Dynamis and StarWalker is considered the best match in the history of Melasma treatment because it offers 3 wavelengths (532 nm, 1064 nm, 2940 nm) with 6 treatment modalities (QS1064, Fractional QS1064, VERDE, Frac3, VERSA and Erbium:YAG MSP). Laser treatment should not be restricted to patients with recalcitrant disease. It should form part of the early treatment protocol.

Treatment of Benign Papilloma in Oropharynx with Erbium:YAG Laser

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Oral squamous cell papillomas are smaller than 1 cm in diameter, painless, and can occur anywhere in the oral cavity in patients over a wide age range. They have papillary (warty) projections and are often pedunculated. The lesions may have a white appearance if excessive keratinisation is present. Squamous cell papillomas are most often associated with HPV-6 and 11 and are not premalignant. Erbium:YAG laser is the treatment of choice.

A 25-year-old male was referred with a complaint of soft-tissue mass between his uvula and palatum molle. According to the history, this lesion had developed two months earlier. Clinical examination showed that there was a pink-coloured lesion extending from the middle line of the uvulae and approximately 0.7 cm in length. There was nothing abnormal in his systemic review. The lesion was completely excised from its connection under local anesthesia with Erbium:YAG. Pathology revealed characteristic findings of a squamous papilloma, including multiple squamous lined papillary fronds containing fibrovascular cores. A month later, the clinical follow-up showed complete tissue healing. A one year of follow-up was done and no evidence of recurrence of the lesion was noted.

Oral squamous papillomas can be found in the oral cavity and the clinical diagnosis of these lesions is important. Laser can be used by ENT surgeons to treat these kinds of oral lesions and should be considered as an alternative to conventional surgery.

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