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# Treatment of Recalcitrant Melasma with Erbium:YAG Laser

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**SUMMARY**

Melasma represents a chronic inflammatory pigment disorder. Current treatment strategies aim at accelerating epidermal cell turnover, slowing down melanin synthesis, destroying melanin and melanosomes, reducing vascular inflammation and UV protection.

The treatment outcome of melasma 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 Erbium:YAG laser in treating recalcitrant cases are 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 by vaporization of melanocytes, inducement of melanophage disruption as well as improved cellular turnover. Erbium:YAG laser is associated with long downtime and the outcome too can be unpredictable.

However, when using the SP Dynamis FS01 applicator (Fotona, Slovenia), a full epidermal thickness ablation can be safely achieved with minimal residual heat (heat can potentially worsen the melasma). Full epidermal thickness is important as the target is melanocytes which are located at the basal layer of the epidermis. Based on the various anecdotal evidence, the author has established that the most optimal parameter for the FS01 applicator for the treatment of melasma is a fluence of between 18 and 22 J/cm2, MSP.

The use of Erbium:YAG laser should not be restricted to patients with recalcitrant disease. It should be part of an early treatment protocol.

Further clinical studies are needed.

# Skin Conditioning Prior to Aesthetic Laser Treatment - the Way to Minimize Risks of Complication

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**SUMMARY**

Aesthetic professionals share a common goal to create beauty and repair damage. In laser/light-based rejuvenation, the third important objective is to prevent damage, prior to the treatment, which might possibly be caused by the treatment itself. The number and scope of laser procedures is growing all the time, but it is also the case that more and more medical providers performing these procedures do not have enough knowledge of preparing skin for safe, low-risk light therapy.

The goals of skin conditioning are: to speed up the healing process, to avoid common complications (like PIH, hypopigmentation) and to obtain faster and better outcomes. The important role of the medical provider is also to recognize the risk groups of patients who are prone to side effects of laser skin therapy and to offer them effective skin conditioning.

Skin conditioning regime is in general easy to perform, a 4-step protocol of Exfoliation, Bleaching, Stimulation and Prevention of Damage will help any medical provider to achieve more predictable outcomes with aesthetic laser treatments.