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Tattoo Removal with the ALEXLAZR™

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Introduction

As trends go, tattooing has been around since the times of ancient Egypt. Recently, tattoos have seen a resurgence in popularity, attributable in part to a greater social acceptance of tattoos, including an increased number of women getting tattoos. But if tattooing has seen a recent spike in incidence, eventually, too, will tattoo removal.

Statistics from the American Society of Dermatological Surgery suggest that over half of the people receiving tattoos want them removed in five years, and that over 70% of those individuals who get tattoos regret their decision later on in life.

In 2004, nearly 19,900 tattoo removal procedures were performed in North America. In 2009, nearly 33,900 tattoo removal procedures are expected to be performed (a 21% increase), making tattoo removal one of the fastest-growing segments of the dermatology industry.*

While several methodologies exist today to remove tattoos, including dermabrasion, cryosurgery, and surgical excision, laser tattoo removal seems to represent the treatment modality of choice, clearly due to the safety and efficacy afforded by noninvasive, laser-light therapy.

This paper examines the efficacy of a Q-switched, alexandrite 755 nm laser (ALEXLAZR from Candela) treating a multicolored tattoo.

Method

The subject was a 70-year-old male, Fitzpatrick skin type II, with a tattoo on his right leg. The tattoo was treated 12 times using a 755 nm laser, with a 50 ns pulse duration at the following treatment parameters: 3–5 J/cm² and 4 mm spot size. No epidermal cooling was provided prior to or during the laser treatment. Topical anesthesia is sometimes incorporated into the pretreatment routine. Patients are given cooling compresses after the laser treatment.

Results

The attached photography demonstrates the safety and efficacy of the laser treatments. The treatments were well tolerated by the patient, and he was very pleased with the final result. Only on close inspection of the photograph, taken several months after the final treatment, were the remaining tattoo ink and small areas of hypopigmentation barely visible.

Discussion

Q-switched lasers remove tattoos by delivering laser light into the skin in very short bursts of energy, creating a photoacoustical effect that fragments the ink and allows the body's natural process of phagocytosis to eliminate the dispersed ink particles. Since laser light is monochromatic, different wavelengths are required to treat different tattoo colors. In general, Q-switched alexandrite lasers like the ALEXLAZR are effective on the more common green, blue, and black tattoo inks while Q-switched Nd:YAG lasers favor red, blue, and black pigmentations.



CLINICAL BULLETIN

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The ALEXLAZR from Candela is simple in its design and efficacious in its use. By selecting the proper spot size and fluence parameters and by taking advantage of the ALEXLAZR's 5 HZ repetition rate, tattoos are treated quickly and effectively. The clinical endpoint of the treatment is a slight discoloration of the tattoo. The laser-tissue interaction can also be readily followed during the laser treatment using the ALEXLAZR, helping to assure patient safety.

Patients are told that each treatment will reduce the intensity of the tattoo by 30–50%. Several treatments (8–12) are generally required to reduce the tattoo satisfactorily for most patients.

The ALEXLAZR can also be used to treat dermal and epidermal pigmented lesions, making it a very versatile and profitable laser for your practice.

I have used the ALEXLAZR from Candela for over five years and am impressed with its speed, efficacy, and ease-of-use in treating tattoos and pigmented lesions.



Figure 1. Pretreatment.



Figure 2. Several months post-treatment.

**Millennium Research Group*

Treatment parameters are subject to change—please consult your sales representative or clinical consultant, or visit www.mycandela.com to obtain current information regarding the use of your Candela device.

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