wider deformities or bone involvement in severe cases of the syndrome.

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Wei-liang Chen, DDS, MD, MBA
Zhuo-shan Huang, DDS, PhD
Juan-kun Liao, DDS, PhD
Rui Chen, DDS
Department of Oral and Maxillofacial Surgery
Sun Yat-sen Memorial Hospital
Sun Yat-sen University
Guangzhou, China

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Localized Cutaneous Argyria From a Nasal Piercing Successfully Treated With a Picosecond 755-nm Q-Switched Alexandrite Laser

Localized argyria is characterized by permanent blue to slate-gray discoloration of skin and/or mucous membranes due to cutaneous impregnation by aerosolized silver particles, often from occupational, topical (silver sulfadiazine), or percutaneous (piercings and acupuncture) exposure.[1] Although topical therapy is ineffective, nanosecond 1,064-nm Q-switched neodymium-doped yttrium aluminum garnet (Nd:YAG) laser therapy can be safe and effective. There has been only 1 previous report, however, of successful treatment of cutaneous localized argyria with picosecond alexandrite laser devices.[2]

A 30-year-old Caucasian woman presented to the clinic with a well-defined, blue-gray, asymptomatic hyperpigmented macule localized to the right nasal ala of several years duration. Although the patient reported having had that area professionally pierced, she switched out the metal piercing for a silver one before the area was completely healed. Within a few months, she noticed progressive darkening of the skin around the piercing, prompting her to remove it. Despite removal of the nasal piercing, the hyperpigmentation failed to improve.

A diagnosis of localized argyria secondary to a silver nasal piercing was made based on history and characteristic clinical findings. The affected area was treated with a picosecond 755-nm Q-switched alexandrite laser (PicoSure; Cynosure, Inc., Westford, MA) with a 750 ps pulse duration, 3-mm spot size, 2.83 J/cm^2 fluence, and 10 Hz frequency. Significant clearance in pigmentation was achieved after 2 sessions a month apart (Figure 1). Post-treatment adverse events included mild transient erythema, edema, and scaling without crusting or blistering.

Discussion

The authors describe the use of a picosecond 755-nm Q-switched alexandrite laser for the treatment of localized cutaneous argyria. Q-switched delivery of laser energy in the picosecond range more optimally matches the thermal relaxation times of tattoo pigment particles than nanosecond pulse durations.[3] This produces greater tensile stress on these pigmented structures, enhancing their destruction by means of photothermal and photomechanical effects, leading to more rapid pigment resolution.[4,5]

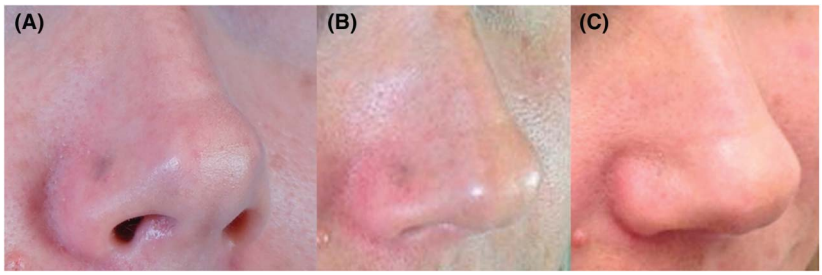

Figure 1. Before (A) and 1 month after the first (B) and second (C) sessions with a picosecond alexandrite laser for localized argyria due to a silver nose piercing. Significant clearance noted after the second treatment.

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Daniel P. Friedmann, MD, FAAD
Sara Buckley, BS
Westlake Dermatology Clinical Research Center
Westlake Dermatology & Cosmetic Surgery
Austin, Texas

Vineet Mishra, MD, FAAD
Division of Dermatology and Cutaneous Surgery
University of Texas Health Science Center
at San Antonio, San Antonio, Texas

D.P. Friedmann has performed clinical research for Cynosure, Inc. The remaining authors have indicated no significant interest with commercial supporters.

Successful Treatment of Under-Eye Pigmentation in Skin Type IV With a Picosecond Alexandrite Laser With Diffractive Lens Array

Infraorbital dark circles are among the most common concerns of patients in an aesthetic dermatology practice. They result from a confluence of factors such as facial volume loss, skin laxity, excess subcutaneous vascularity, skin pigmentation, exogenous medication use, and fat pad herniation.[1] An optimal cosmetic outcome often requires a variety of treatment methods to address this multifactorial etiology. Pigmentation in this sensitive area can be difficult to treat, particularly in darker skin types, because of the increased risk of postinflammatory hyperpigmentation.

The picosecond 755-nm alexandrite laser (PicoSure; Cynosure, Inc., Westford, MA) was approved by the Food and Drug Administration (FDA) for the treatment of unwanted tattoos and pigmented lesions in 2012. A subsequently developed fractionated optic for the picosecond 755-nm alexandrite laser called the diffractive lens array (DLA) has been FDA-cleared for the treatment of wrinkles and acne scars in Fitzpatrick skin Types I through IV.[2] Studies have also demonstrated this device to be effective in addressing conditions such as photodamage, striae, and minocycline-induced skin pigmentation.[3–5] Thus far, the utility of this device in the treatment of under-eye pigmentation has not been described.

A 44-year-old, Fitzpatrick skin Type IV, Hispanic woman requested treatment for dark under-eye circles (Figure 1A). Whereas examination revealed that her complaint of under-eye circles could also be partially