TABLE 2. Patient Factors and Examination Findings Suggesting Retronychia (Note That Not all Need to be Present to Make Diagnosis)

Patient Factors
History of microtrauma or macrotrauma
Female
Young age
Toenail (particularly great toenail)
Examination findings
PNF inflammation
Thickened/layered nail
Nail ridging
Shortened/disappearing nail bed
Onycholysis
Xanthonychia
Nail growth arrest
Pain

PNF, proximal nail fold.

had overall milder retronychia. However, given that nail avulsion carries morbidity, we suggest that, for patients with a milder phenotype, it is reasonable to start with conservative methods. In addition, we believe that aggressive clipping of the onycholytic nail is a particularly important component, as onycholysis is likely key to maintaining the cycle of microtrauma that allows for progression of retronychia.[2,5]

In summary, there are several patient factors and examination findings that should be used by dermatologists to aid in the diagnosis of retronychia (Table 2), although not all need to be present. Although PNF nail fold inflammation is a key characteristic, such as in distal ingrown nails, this inflammation is usually secondary to a foreign body reaction; oral antibiotics should therefore be reserved for those patients with other signs of acute infection and a cultured causative organism. Our study demonstrated lower cure rates with avulsion than previously reported and suggests that, for mild cases, improvement can be achieved with conservative measures, including clipping the onycholytic nail plate to minimize microtrauma.

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Picosecond 755-nm Alexandrite Lasers Are an Effective Treatment for Imatinib-Induced Hyperpigmentation

The dermatological side effects of imatinib mesylate (IM) include pigmentary abnormalities such as hyperpigmentation. This may be cosmetically unappealing and socially disabling for patients, especially for those with oncologic conditions that require IM for extended durations. In the case series previously reported by Kok and colleagues,[1] Patient 1 from this series had extensive facial pigmentation, including the forehead, nasal bridge, bilateral temporal areas, infraorbital regions, and nasal ala (Figure 1), which was consistent histologically with acquired dermal melanocytosis (ADM). This patient was severely

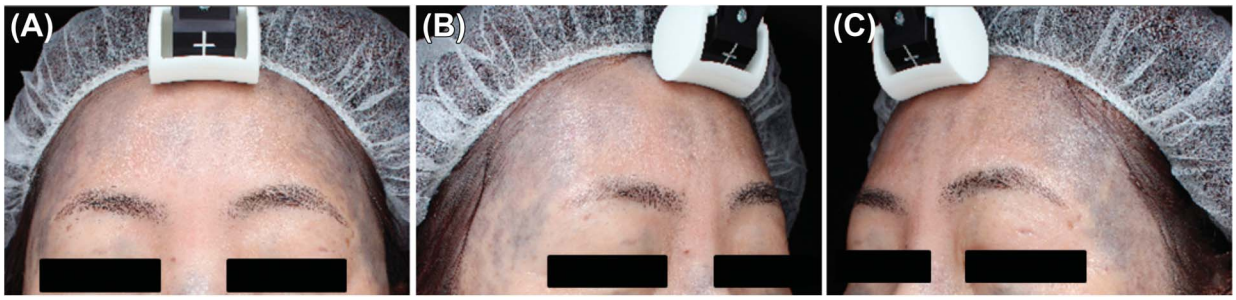

Figure 1. Pre-treatment photographs, bluish-gray hyperpigmentation over the forehead, nasal bridge, bilateral infraorbital regions, nasal ala, and temples.

distressed by the facial ADM and was keen for treatment. After little improvement with a topical bleaching agent (modified Kligman formula) for 6 months, she underwent 5 sessions of picosecond 755-nm alexandrite laser (spot size 3 mm, boost 4, at a fluence of 2.33 J/cm^2) treatment every 2 months. She had significant improvement of the facial pigmentation after completing 5 sessions. The VISIA system was used for photography, which included 3 standard close-up views, captured in a standardized manner (Figure 2). The effect was sustained at 6 months after treatment, and she remains satisfied with the cosmetic outcome. Patients 2 and 3 from the case series both opted for conservative management and were lost to follow-up.

The treatment of ADM is challenging. Topical bleaching agents that act on the tyrosinase pathway have modest effects for ADM,[2] possibly due to the lack of penetration to affect dermal melanocytes. Laser therapy has been used to treat ADM in Asians, including Q-switched ruby laser with adjunctive topical bleaching agents.[3] The Q-switched ruby laser has the main constraint of higher rates of post-inflammatory hyperpigmentation after treatments. More recently, the picosecond 755-nm alexandrite laser was also reported to be effective in the treatment of ADM in Asians and associated with a lower risk of postinflammatory hyperpigmentation in the Asian skin of Fitzpatrick phototype III or IV.[4] This is particularly important, given the cosmetic expectations of patients who seek treatment for this condition. The patient in this report similarly had a favorable cosmetic outcome. The lower risk of dyspigmentation and scarring with the picosecond alexandrite lasers therefore confer a significant advantage as a tool for treating dermal pigmentation.

Proposed pathomechanisms of the adult-onset group of dermal melanocytosis include migration from epidermal or hair bulb melanocytes and/or reactivation of a latent dermal melanocytosis.[5] The latter theory may suggest that effective targeting of pre-existing dermal melanocytes is especially crucial for a good cosmetic outcome. There has been a paucity of data of success in the management of IM-associated hyperpigmentation. To the best of the authors' knowledge, this is the first known report of efficacy of the picosecond 755-nm alexandrite

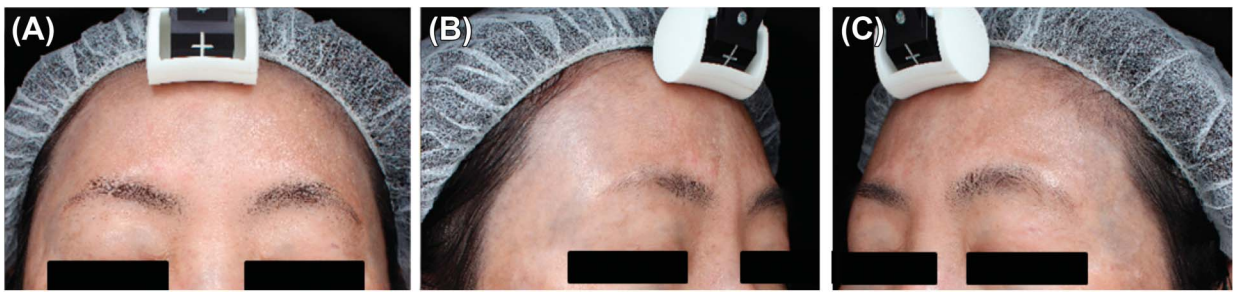

Figure 2. Post-treatment photographs of the same patient after 5 sessions of picosecond 755-nm alexandrite laser with improvement (10 months later) over the forehead, nasal bridge, and nasal ala.

laser in IM-associated ADM. Therefore, our report supports the efficacy of picosecond lasers as a viable option of treatment. However, it must be noted that continued use of IM may contribute to recurrence and patients may require repeated laser therapy subsequently.

In summary, this article demonstrates another instance where picosecond 755-nm alexandrite lasers can be used in the management of IM-associated ADM. It is a safe and effective tool, with minimal risks of dyspigmentation and scarring.

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Safety of a Perfluorodecalin-Infused Silicone Patch in Picosecond Laser-Assisted Tattoo Removal: A Retrospective Review

Q-switched (QS) and picosecond lasers can effectively and safely remove unwanted tattoo pigments.[1] During laser treatment of tattoos, immediate whitening reactions occur as a result of thermally induced cavitation bubble formation.[2,3] The concomitant increase in optical scattering temporarily limits the penetration of sequential laser passes.[2,3] Perfluorodecalin (PFD), a metabolically inert fluorocarbon with high gas solubility and the ability to enhance optical clarity, facilitates rapid sequential laser passes without the need to wait 20 minutes for the microcavitation bubbles to naturally dissipate.[3–5] Studies have shown that the use of a PFD-infused silicone patch during laser-assisted tattoo removal with a 755-nm QS alexandrite laser enables multiple passes to be made in a single treatment session and is safe, effective, and well tolerated.[4,5] Additional potential benefits may include thermal protection of the epidermis and reduction in laser fumes and debris from the procedure. Although anecdotally reported, there have been no studies examining the use of PFD patch for laser-assisted tattoo removal with other lasers. This study assessed the safety of treating tattoos with picosecond lasers using multiple passes with PFD patch.

Methods

Asentral Institutional Review Board (Newburyport, MA) approved this retrospective, nonrandomized study of all eligible patients treated for unwanted tattoos using picosecond laser in combination with PFD patch between January 1, 2017, and June 30, 2017, at a high-volume laser and dermatologic surgery center. Only patients who underwent treatment with PFD patch were identified and their data recorded. The primary outcome measure is adverse events. Inclusion criteria included age ≥18 years and laser treatment of unwanted tattoo using the PFD patch. Information extracted from the medical record includes patient demographics (age, sex, and skin type), treatment location, tattoo characteristics (color and history of previous treatment), laser treatment parameters (device, wavelength, fluence, pulse duration, and number of passes), and adverse events. Adverse events were evaluated immediately after treatment and at the first follow-up visit, which usually occurred between 4 to 8 weeks after initial treatment.