

Pulsed dye laser as an adjunctive treatment for therapy-resistant pityriasis rubra pilaris



Justin Lee, BS, Sanjana Iyengar, MD, and Zachary Zinn, MD
Morgantown, West Virginia

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Abbreviations used:

PDL: pulsed dye laser
PRP: pityriasis rubra pilaris

THERAPEUTIC CHALLENGE

Pityriasis rubra pilaris (PRP) is a heterogeneous papulosquamous disorder characterized by follicular papules and palmoplantar hyperkeratosis. Particular subtypes of the disease can be resistant to first-line treatments, such as isotretinoin and methotrexate. The off-label use of biologics for PRP has been effective but carries the risk of immunosuppression.¹ Pulsed dye laser (PDL) is used to treat many vascular disorders and has been reported as a treatment for keratosis rubra pilaris.² We report successful management of therapy-resistant PRP with PDL.

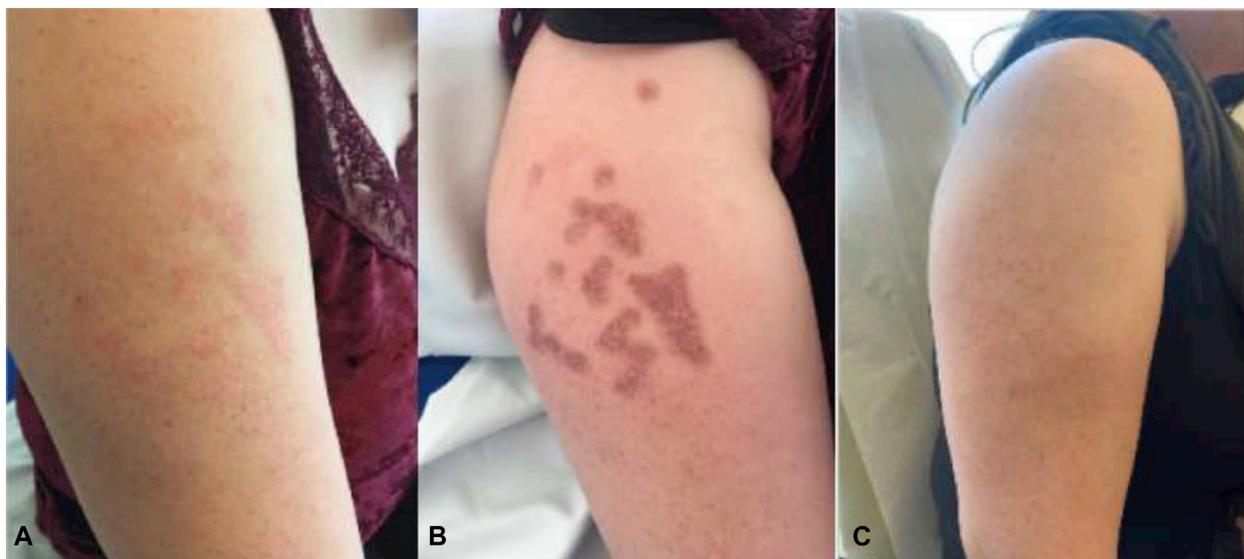


Fig 1. Pityriasis rubra pilaris. Pulsed dye laser therapy was performed at a wavelength of 595 nm, spot size of 10 mm, pulse duration of 0.45 ms, and fluence of 5.50 J/cm² for 30 pulses. **A**, Right arm before treatment. **B**, Right arm immediately after treatment. **C**, Right arm 1 month after treatment.

From the Department of Dermatology, West Virginia University, Morgantown.

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Correspondence to: Justin Lee, BS, WVU School of Medicine, Department of Dermatology, PO Box 9100, 64 Medical Center Dr, Morgantown, WV, USA 26506. E-mail: jblee@mix.wvu.edu.

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Fig 2. Pityriasis rubra pilaris. Pulsed dye laser therapy was performed at a wavelength of 595 nm, spot size of 10 mm, pulse duration of 1.5 ms, and fluence 7.00 J/cm² for 180 pulses. **A**, Left cheek before treatment. **B**, Left cheek 4 months after treatment.

SOLUTION

Over an 8-month period, a 17-year-old girl with type IV PRP was treated with topical betamethasone dipropionate 0.05% cream, oral isotretinoin 80 mg daily, and methotrexate 12.5 mg once weekly. Despite the use of first-line treatments, the patient had minimal improvement and had to decrease her dose of isotretinoin because of hypertriglyceridemia. The initiation of adjunctive PDL was then performed on her arm (Fig 1A and 1B), with complete resolution of the rash 1 month later (Fig 1C). Given the patient's improvement, PDL was then performed on her face (Fig 2A), which led to complete clearance as well (Fig 2B). The use of PDL seems to be a safe and effective adjunctive treatment for therapy-resistant PRP.

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