Effects of Cryogen Spray Cooling and High Radiant Exposures on Selective Vascular Injury During Laser Irradiation of Human Skin

Cryogen spray cooling using a burst of −30°C liquid applied just prior to delivery of a laser pulse has recently been developed to selectively cool the skin surface during laser treatment of cutaneous vascular lesions. Tunnell et al demonstrate that the use of long cryogen spray cooling times (50-300 milliseconds) can be used to maintain selective vascular damage in human skin in vivo while using pulsed dye lasers at very high fluences. This method offers the opportunity for more aggressive laser therapy of cutaneous vascular malformations such as port-wine stains while minimizing the risk of epidermal injury.

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308-nm Excimer Laser for the Treatment of Psoriasis

Induration-Based Dosimetry

The 308-nm excimer laser treatment has been used with varying dosage schedules to target discrete psoriatic plaques that have failed to respond to conventional therapies. Most of the protocols described to date have been based on the minimal erythema dose as determined on normal, unaffected skin. Taneja et al demonstrate that a dosimetry schedule based on induration of the treated individual plaques offers a rational effective treatment protocol that practically eliminates the need for minimal erythema dose testing.

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Treatment of Pemphigus Vulgaris and Pemphigus Foliaceus With Mycophenolate Mofetil

The introduction of systemic corticosteroids for the treatment of pemphigus vulgaris has dramatically reduced its mortality rate from 90% to less than 5%, but this therapeutic success has been achieved at the cost of significant corticosteroid-induced adverse effects. Adjuvant corticosteroid-sparing agents have been increasingly used to reduce patients' cumulative exposure and potentially to minimize corticosteroid-induced toxic effects. In this retrospective study, Mimouni et al report on the largest series of patients with pemphigus vulgaris and pemphigus foliaceus treated with mycophenolate mofetil, demonstrating the minimal adverse effects and high remission rates.

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Botulinum Toxin Type A Is a Safe and Effective Treatment for Axillary Hyperhidrosis Over 16 Months

A Prospective Study

Primary focal hyperhidrosis is an idiopathic disorder of excessive sweating affecting mainly axillae, palms, soles, or the face. The chronicity of this occasionally socially debilitating disorder necessitates long-term treatment. Botulinum toxin type A has been shown to be extremely effective in treating hyperhidrosis after 1 treatment cycle, but there have been limited data related to the frequency, optimal dosing, and safety of long-term therapy. In this large-scale study of patients with hyperhidrosis, Naumann et al demonstrate that repeated treatment cycles with botulinum toxin type A over the course of 16 months is safe and maintains efficacy, with a low risk of neutralizing antibody formation.

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An International, Randomized, Double-blind, Placebo-Controlled Phase 3 Trial of Intramuscular Alefacept in Patients With Chronic Plaque Psoriasis

Myriad therapeutic options exist for moderate to severe psoriasis vulgaris. Many of these agents, alone or in combination, offer control over symptoms, but most patients fail to achieve long-lasting disease-free remissions without maintenance therapy. Alefacept is a novel and selective biologic recombinant protein that selectively targets the T cells implicated in the pathogenesis of psoriasis. In this randomized, double-blind, placebo-controlled trial, Lebwohl et al demonstrate that once-weekly intramuscular alefacept treatment was well tolerated and improved psoriasis in a dose-dependent manner. Of particular note was the prolonged disease-free interval achieved by many patients, thus lessening the need for maintenance therapies with potential toxic effects.

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