Cosmeceutical Regimen Equally Effective, Better Tolerated Than Tretinoin

A Randomized, Controlled Comparative Study of the Wrinkle Reduction Benefits of a Cosmetic Niacinamide/Peptide/Retinyl Propionate Product Regimen vs. a Prescription 0·02% Tretinoin Product Regimen.

Fu JJJ, Hillebrand GG, et al:

Br J Dermatol 2010; 162 (February): 647-654

The specific cosmeceutical regimen followed in this study can produce similar improvement in periocular wrinkles as tretinoin with less transient irritation.

Background: Cosmeceuticals are preparations claiming to possess biologic activity but are marketed as cosmetics. These products often contain multiple "active" ingredients with vague claims of efficacy. However, many cosmeceutical products do contain retinoids, which are likely to have similar activity to tretinoin, although less clinical evidence is available to support the contention that these other retinoids give cosmetic benefits. Patients frequently ask if these over-the-counter retinoids are equivalent to tretinoin. I respond that they probably have somewhat similar efficacy, but less clinical data are available.
Objective: To compare the efficacy of a cosmetic moisturizer regimen versus a prescription regimen with 0·02% tretinoin for improving the appearance of facial wrinkles. These investigators were employed by the Proctor and Gamble Company.
Design: Randomized clinical trial.
Participants: 196 women aged 40 to 65 years with Fitzpatrick skin types I to III and moderate to moderately severe periorbital wrinkles.
Methods: Subjects were randomized to either tretinoin once per day and sunscreen or the niacinamide/peptide/retinyl propionate regimen, which consisted of 3 different Proctor and Gamble products containing sunscreen, niacinamide, peptides, antioxidants, and a retinoid (0.3% retinyl propionate). Prior to the start of the study, 25 subjects in each group agreed to undergo their treatment regimen for 24 weeks rather than 8 weeks. Perioral wrinkles were assessed by expert grading and image analysis of digital images of subjects' faces and by a self-assessment questionnaire. Product tolerance was assessed via clinical erythema and dryness grading and self-assessment.
Results: The cosmetic regimen produced superior improvement in periocular wrinkles at 8 weeks, but the 2 regimens produced similar improvement at 24 weeks. Tretinoin, but not the cosmetic regimen, was associated with the typical retinoid side effects of erythema and dryness. Tretinoin produced an increase in transepidermal water loss at 8 weeks, indicating some breakdown of the skin barrier. This skin barrier breakdown largely resolved by 24 weeks.
Conclusions: The specific cosmeceutical regimen followed in this study can produce similar improvement in periocular wrinkles as tretinoin with less transient irritation.
Reviewer's Comments: The obvious problem with the study is that it compared a regimen containing multiple ingredients with tretinoin so it is very difficult to determine what is mediating the anti-wrinkle activity of the cosmetic regimen. No biopsies were performed, so it is unclear whether the cosmetic has the known effects of tretinoin on dermal collagen. Niacinamide is known to improve skin barrier function, so an intriguing possibility is that niacinamide blunts some of the irritancy of the retinoid. Hopefully, future studies will address the specific molecule mediating the efficacy and reduced irritancy of the cosmetic regimen. (Reviewer-Michael S. Kolodney, MD, PhD).

Keywords: Anti-Aging, Niacinamide, Retinyl Propionate, Skin Care, Tretinoin, Wrinkles

Print Tag: Refer to original journal article

BTX Is Only Helpful for Certain Types of Migraine

Predicting Migraine Responsiveness to Botulinum Toxin Type A Injections.

Kim CC, Bogart MM, et al:

Arch Dermatol 2010; 146 (February): 159-163

Imploding and ocular migraines are more likely to respond to botulinum toxin than exploding migraines.

Background: Anecdotal observations suggest that some patients experience improvement of their migraine headaches after treatment with botulinum toxin A (BTX) for cosmetic purposes. However, prospective clinical trials have not consistently validated these anecdotal observations. A recent prospective study has suggested that only certain sub-types of migraines, stratified by the directionality of the pain, respond to BTX.
Objective: To perform BTX injections for cosmetic purposes and to determine whether this treatment provides additional benefit for migraines stratified by pain type.
Participants: Patients who were scheduled to receive BTX injections were interviewed and those with a history of migraines were invited to participate in the study. A detailed history was taken to determine the type of migraine. Exploding migraines give a sensation of increased pressure within the brain, imploding migraines give a sensation of tightening or crushing of the skull, and ocular migraines are associated with severe eye pain.
Methods: Patients were treated for cosmetic purposes by injection into the procerus, corrugators, frontalis, and orbicularis oculi muscles. Muscle tenderness that coincided with patients' migraine headaches (trigger points) was also in the symptomatic areas of the temporalis, occipitalis, cervical paraspinal, and trapezius muscles. Participants received a mean BTX dose of 47 units. Three months later, patients were interviewed by a headache specialist who determined the frequency of headaches in the second and third month following the BTX injection.
Results: Of 19 patients who completed the study, 13 reported decreased frequency of migraines. Among the responders, 10 of 13 had imploding or ocular migraines; among the 6 nonresponders, all had the exploding type of migraine. In patients with imploding or ocular migraines, frequency of headaches decreased from 7.1 days per month at baseline to 0.6 days per month at 3 months after BTX injection. In patients with exploding migraine, headache frequency decreased from an average of 11.4 days per month to 9.0 to 9.4 days per month. Injection of BTX at sites of muscle tenderness (trigger points) was not associated with an improved response.
Conclusions: BTX given for cosmetic treatment also significantly decreases the frequency of imploding or ocular migraines.
Reviewer's Comments: This finding confirms a previous study suggesting that BTX is only helpful for certain types of migraine. This study used doses of BTX commonly given for cosmetic treatment. Although this study was small and lacked a control group, the patients paid the normal fee for their cosmetic BTX treatments, so there was no incentive to report positive results after getting free cosmetic BTX. The study was sponsored by Allergan, the manufacturer of BTX. (Reviewer-Michael S. Kolodney, MD, PhD).

Keywords: Botulinum Toxin, Migraine

Print Tag: Refer to original journal article

Presence of Anti-PM-Scl Antibody Not a Good Prognostic Factor in PM/DM Patients

Long-Term Outcome of Patients With Polymyositis/ Dermatomyositis and Anti-PM-Scl Antibody.

Marie I, Lahaxe L, et al:

Br J Dermatol 2010; 162 (February): 337-344

IVIG therapy may be a good option for PM/DM patients with significant esophageal involvement.

Objective: To assess clinical features and long-term outcome in patients with isolated polymyositis/dermatomyositis (PM/DM) with anti-PM-Scl antibody; and to evaluate prevalence, characteristics, and long-term outcome of interstitial lung disease (ILD) in these patients.
Design/Participants: Retrospective study of 20 patients with PM/DM and a positive anti PM/Scl antibody.
Methods: Patients underwent initial evaluation to document presence of associated cancer and organ dysfunction including lung and cardiac involvement, dysphagia, Raynaud's phenomenon, and dysphonia. They were followed up for a minimum of 18 months. During follow- up, the authors assessed muscle strength and enzymes, autoantibodies, presence of skin disease, type of therapy, course of disease, and survival.
Results: There were 10 men and 10 women with a median age of 48 years. Of the 20 patients, 15 developed lung disease and 3 developed cancer (pancreas, breast, and cavum). Additionally, there were 8 patients with Raynaud's phenomenon, 7 with arthralgias, 4 with esophageal involvement requiring enteral feeding, and 2 with hyperkeratotic "mechanic hands." Of the 15 patients with pulmonary involvement, 12 had ILD and 3 had ventilatory insufficiency and aspiration pneumonia. The main therapy was systemic steroids, but 13 patients also received additional immunosuppressive therapy. Overall, 17 of 20 patients had a chronic/continuous course. Although 14 patients (70%) had improvement with therapy, 12 recurred either during tapering of therapy or after discontinuation. Four patients deteriorated in spite of treatment and 2 died. Importantly, of the 12 patients with ILD, 9 improved and 1 resolved with therapy. Also, the 4 patients with esophageal dysfunction treated with intravenous immunoglobulins (IVIG) had marked improvement and could resume oral feeding.
Conclusions: Presence of anti-PM-Scl antibody is not a good prognostic factor in patients with PM/DM, as there appears to be an association with lung and esophageal involvement; in addition, anti-PM-Scl antibody may coexist with malignancy in patients with PM/DM.
Reviewer's Comments: These authors demonstrated that PM/DM patients with positive anti PM-Scl are more likely to have joint involvement, "mechanic hands," and Raynaud's phenomenon. They also suggest that these patients may not have a benign prognosis as reported previously, as most of them will have a chronic course with exacerbations and remissions and may develop joint pain and severe esophageal dysfunction leading to poor intake and malnutrition. Additionally, some patients may develop ventilatory insufficiency and aspiration pneumonia, and some can suffer from internal malignancies. (Reviewer-Carlos Garcia, MD).

Keywords: Anti PM-Scl Antibody-Positive Patients, Polymyositis/Dermatomyositis

Print Tag: Refer to original journal article

Nail Matrix Excision Another Alternative for Ingrown Toenails

A Minimally Invasive Surgical Approach for Ingrown Toenails: Partial Germinal Matrix Excision Using Operative Microscope.

Yabe T, Takahashi M:

J Plast Reconstr Aesthet Surg 2010; 63 (January): 170-173

Nail matrix excision is just as effective and less invasive compared with traditional methods in the treatment of ingrown toenails.

Background: Ingrown toenails are common and significant problems. Many treatments including phenol matrixectomy, CO_2 ablation, and electrosurgery have been advocated. Prolonged healing time is part of all of these.
Objective: To report a new, less-invasive surgical approach to treating ingrown toenails--partial germinal matrix excision using operative microscope.
Participants/Methods: 46 consecutive patients were enrolled with stage 2 or 3 ingrown nails. Twenty-one males and 25 females were included; 21 toes were bilateral, which resulted in 77 treated lesions. Digital blocks with tourniquet were utilized. Three to 4 millimeters of the lateral nail plate were excised and then the lateral nail matrix was visualized and excised with a scalpel. The lateral nail fold and proximal nail fold were undisturbed. Hemostasis was obtained with electrocoagulation.
Results: Time for wound healing was 10 to 28 days (average time, 15.6 days); 1 patient with a connective tissue disease healed in 6 weeks. Thirty-four patients were followed for >6 months. Only 1 patient, who had onychomycosis, had a painless recurrence of the disorder.
Conclusions: This method is effective for treating ingrown toenails and is less invasive than other treatment methods.
Reviewer's Comments: Claiming that this method is less invasive than phenol cauterization or any of the other methods is disingenuous. In fact, with phenol treatment the tissue is usually not manipulated at all except to apply the medication. Whether this method has faster healing time is unknown since it wasn't compared to any other method of treatment. My personal experience with phenol is that there is prolonged healing time, thus I may give this technique a try in the future and see how it works. It's a shame the authors didn't treat patients with bilateral ingrown nails with 2 different techniques. The outcomes would have been far more interesting. (Reviewer-Daniel Eisen, MD).

Keywords: Ingrown Toenail, Surgery, Matrixectomy

Print Tag: Refer to original journal article

Gd Deposits in Nephrogenic Systemic Fibrosis Confirm an *In Vivo* Transmetallation

Gadolinium-Induced Nephrogenic Systemic Fibrosis Is Associated With Insoluble Gd Deposits in Tissues: In Vivo Transmetallation Confirmed by Microanalysis.

Thakral C, Abraham JL:

J Cutan Pathol 2009; 36 (December): 1244-1254

The demonstration of insoluble tissue deposits of Gd with co-associated elements clearly confirms in vivo transmetallation and dissociation of soluble Gd-chelates.

Background: Nephrogenic systemic fibrosis (NSF) is a chronic debilitating disease that has been linked to gadolinium (Gd)-containing MRI contrast agents. Several papers have documented the presence of Gd in skin biopsies. It is hypothesized that intravenously introduced Gd-chelates may accumulate in certain situations such as renal failure with decreased plasma clearance. Transmetallation may occur where the Gd-chelates disassociate, leading to free Gd ions. These Gd ions may then precipitate with other cations forming insoluble tissue deposits. These insoluble Gd deposits may function as a target or trigger for circulating fibrocytes, leading to fibrosis.
Objective: To quantify detectable Gd deposits in the skin and to identify the tissue distribution.
Design: Retrospective study.
Participants: Skin biopsies (57) were taken from 29 patients with NSF 2 to 3 years after Gd exposure.
Methods: Automated scanning electron microscopy (SEM)/energy dispersive x-ray spectroscopy was utilized to obtain an in situ quantitative analysis of insoluble Gd deposits in the skin.
Results: Gd deposits were detected in all 29 patients (53 of 57 skin biopsies). The Gd was localized to the deep dermis and subcutaneous fibrous septa at concentrations of 1 to 2270 cps/mm2. Transmission electron microscopy detected intracellular deposits within fibrocytes and macrophages. The Gd deposits were associated with Ca, P, Fe, and Zn.
Conclusions: Insoluble Gd associated with other elements supports the pathogenesis of an in vivo transmetallation. The insoluble Gd may play a significant role in the pathogenesis of the fibrosis associated with NSF.
Reviewer's Comments: This paper adds a critical missing piece to understanding gadolinium's role with the pathogenesis of NSF. Since the initial Gd-chelates are soluble and Gd skin deposits are insoluble, a transmetallation process was strongly suspected whereby the chelates were displaced by circulating cations. Demonstrating the insoluble Gd deposits in association with other cations in the areas of most pronounced fibrosis as well as intracellular deposits within fibrocytes and macrophages provides compelling evidence that transmetallation must have taken place. Most hypotheses seeking to explain the role of Gd in fibroplasia have focused upon gadolinium's role to directly stimulate fibroblast growth; thus, the localization of insoluble Gd deposits in these locations is powerful confirmation. This paper also reinforces the premise that kidney disease is a prerequisite since no NSF cases were reported with normal renal function. Gd deposits may persist for prolonged periods, leading to careful monitoring of all patients who receive Gd-chelate contrast agents. On a practical note, since most of the Gd deposits in the skin were localized in the reticular dermis and subcutaneous fat and fibrous tissue, a superficial biopsy may miss the characteristic pathologic changes and may not provide proper tissue sampling for a future Gd tissue analysis, should this be desired. (Reviewer-Paul K. Shitabata, MD).

Keywords: Gadolinium, Nephrogenic Systemic Fibrosis, SEM, Energy Dispersive X-Ray Spectroscopy

Print Tag: Refer to original journal article

Some Psoriasis Displays Severe Sensitivity to UV Light

Severely Photosensitive Psoriasis: A Phenotypically Defined Patient Subset.

Rutter KJ, Watson REB, et al:

J Invest Dermatol 2009; 129 (November): 2861-2867

Nearly all young patients with psoriasis are females.

Background: Occasionally, we run across patients with psoriasis that worsens with ultraviolet (UV) light. In fact, it is said the 5% to 20% of psoriasis patients flare with UV light. In addition, there is a subset of patients with chronic plaque psoriasis who have severely photosensitive psoriasis. These patients often have a striking seasonal pattern for their psoriasis.
Objective: To investigate the phenomenon of severely photosensitive psoriasis.
Participants: 20 chronic plaque psoriasis identified to have photosensitive psoriasis by asking the survey question, “Is your psoriasis made worse by sunlight?”
Methods: These patients were subsequently verified as having psoriasis affecting sun-exposed sites that was severe in summer but minimal or absent in winter. The clinical features of these 20 patients were obtained by history and examination. Nineteen patients underwent monochromatic photo testing, and all 20 photosensitive psoriasis patients received broad band UVA provocation testing. Nearly all also had testing for antinuclear antibody and extractable nuclear antigens, porphyrins to help exclude other photosensitivity, and HLA testing. In addition, 10 of the photosensitive psoriasis patients were further involved in an investigative mechanistic study along with 20 controls, including 11 normal subjects and 9 nonphotosensitive patients. These subjects had skin biopsy specimens taken after photoprovocation that were examined for morphology and immunohistochemistry.
Results: The authors found that the photosensitive psoriasis patients were all female except 1. The age of onset was young, with a mean of 11 years, and two-thirds of the patients had a family history of psoriasis. The psoriasis tended to occur in sun-exposed skin. Most of these patients require systemic therapy in the summer months. The activation spectrum was broadband UVA. Sixteen of 17 patients examined had HLA–Cw*0602. Phototesting in 4 of the 10 patients, but none of the controls, resulted in early histopathologic changes of psoriasis with significant dermal infiltration by neutrophils, CD4+, CD8+, and CD45RO+ cells by 24 hours of exposure.
Conclusions: The authors concluded that there is a phenotypically distinct subset of psoriasis provoked by UV light, and that in these cases, there is a role for memory effector T cells in the early phase of the disease.
Reviewer's Comments: I really found this article interesting because I am certain I have seen patients like this, and they have perplexed me. I am sure that my first clinical impression in these cases has been that these typically young women had psoriasiform subacute cutaneous lupus, an impression I would have favored until the negative ENA and noncharacteristic histopathology returned. One final point to note is that the photoactivation spectrum for this subset is not filtered by window glass. (Reviewer-David L. Swanson, MD).

Keywords: Phototherapy, Treatment

Print Tag: Refer to original journal article

Ustekinumab vs Etanercept for Psoriasis

Comparison of Ustekinumab and Etanercept for Moderate-to-Severe Psoriasis.

Griffiths CEM, Strober BE, et al:

N Engl J Med 2010; 362 (January 14): 118-128

A randomized clinical trial sponsored and designed by the manufacturers of ustekinumab showed ustekinumab to be superior to etanercept after 12 weeks.

Background: Most biologic agents currently approved for psoriasis inhibit tumor necrosis factor (TNF). These include etanercept, which is a fusion protein containing the TNF receptor, adalimumab, a monoclonal antibody against TNF administered by subcutaneous injection and infliximab, which is another anti-TNF monoclonal administered intravenously. Ustekinumab is a monoclonal antibody to interleukin-12 and interleukin-23 that was recently approved for psoriasis. Following a loading dose, this drug is administered at 3-month intervals, but needs to be administered in a physician's office. Little comparative efficacy data are available to guide physicians in choosing among the anti-TNF agents or between ustekinumab and the anti-TNF drugs.
Objective: To compare the efficacy of etanercept with ustekinumab.
Design: Randomized clinical trial.
Participants: 903 patients with moderate-to-severe psoriasis.
Methods: Subjects were randomized to receive either a loading dose of etanercept (50 mg twice per week) or 1 of 2 loading doses of ustekinumab (either 45 mg at weeks 0 and 4 or 90 mg at weeks 0 and 4). Patients in the etanercept group who did not respond adequately at 12 weeks were crossed over to ustekinumab. The primary end point was 75% improvement in the Psoriasis Area-and-Severity Index (PASI) score (PASI 75).
Results: PASI 75 was achieved in 73.8% of subjects receiving 90 mg of ustekinumab, 67.5% of patients receiving 45 mg of ustekinumab, and 49% of subjects who received etanercept. The differences between each group achieved statistical significance. About half of patients who did not achieve PASI 75 with etanercept eventually achieved PASI 75 after crossover to ustekinumab. Adverse events were similar between the 3 groups.
Conclusions: The authors conclude that ustekinumab is superior to etanercept at 12 weeks.
Reviewer's Comments: Ustekinumab has the advantage of only once per 3-month dosing following the loading dose. In addition, as shown in this paper, it is more efficacious than one of the TNF blocking biologics and is effective for patients who failed etanercept. Although not yet approved for psoriatic arthritis, some published studies suggest that it improves arthritis as well. A potential disadvantage is that the drug is not approved for self-injection. For now, I will probably reserve this agent for patients who have contraindications to or who have failed anti-TNF drugs. However, after the safety of this agent becomes better established, it may become my first choice systemic agent for psoriasis. This trial was sponsored by and designed by employees of Centacor, the manufacturers of ustekinumab. Although ustekinumab is clearly more potent than etanercept, its relative efficacy to antibody based anti-TNF drugs is still an open question. (Reviewer-Michael S. Kolodney, MD, PhD).

Keywords: Ustekinumab, Etanercept

Print Tag: Refer to original journal article

Does Tx Choice Determine Onychomycosis Recurrence After Mycological Cure?

Long-Term Follow-Up of Toenail Onychomycosis Caused by Dermatophytes After Successful Treatment With Systemic Antifungal Agents.

Piraccini BM, Sisti A, Tosti A:

J Am Acad Dermatol 2010; 62 (March): 411-414

This small prospective study suggests that onychomycosis cured by terbinafine is less likely to recur than onychomycosis cured by pulsed itraconazole.

Background: Treating onychomycosis has recently become much less expensive due to the availability of generic forms of popular medications. However, treatment still requires lengthy systemic therapy and is associated with a high rate of recurrence. Risk factors for onychomycosis include concomitant diseases including diabetes, rheumatoid arthritis, and peripheral vascular disease as well as chronic trauma. Popular treatment regimens include daily terbinafine 250 mg/day for 3 months or pulsed dose itraconazole. Terbinafine has less drug interactions than itraconazole and most studies have shown the terbinafine regimen to produce a superior cure rate. Although both drugs are known to persist in the nail plate for months following cessation of treatment, it has been unclear if the choice of treatment regimen affects the chance of recurrence following mycological cure.
Objective: To determine factors influencing recurrence on onychomycosis in patients with mycological cure 1 year following treatment.
Design: Prospective clinical study.
Participants: 73 patients, who were treated for toenail onychomycosis with either daily terbinafine or pulsed itraconazole for 3 months. All participants achieved mycological and clinical cure 1 year following treatment.
Methods: The patients were followed every 6 months for 5 years with clinical examinations. If the clinical exam was suspicious for onychomycosis, periodic acid-Schiff (PAS) stain of the nail plate was performed. Of the 73 patients, 46 used an antimycotic nail lacquer containing amorolfine that is currently unavailable in the United States.
Results: 12 of the 73 patients experienced recurrence in the 5-year period, with the average time to recurrence being 3 years. All recurrences presented as distal subungual onychomycosis of one or both of the great toenails. The causative organism for the recurrent infection was always the same as the original organism (*Trichophyton rubrum* in 10 cases and *T. interdigitale* in 2 cases. Thirty-six percent of the patients treated with pulsed itraconazole suffered recurrence compared with only 12% of those treated with terbinafine. The use of antifungal nail lacquer or the dermatophyte strain did not affect recurrence rates. Risk factors for onychomycosis were present in 3 of the 12 recurrences and in 17 of the 51 patients who remained cured.
Conclusions: The authors conclude that onychomycosis treated with continuous terbinafine was less likely to recur following mycological cure than onychomycosis cured with pulsed itraconazole.
Reviewer's Comments: This paper provides support for using a 3-month course of daily terbinafine to treat onychomycosis. It is unclear exactly how terbinafine can prevent recurrence that occurs 3 months following therapy, but perhaps some of the drug persists in the nail. I usually recommend that patients apply an antifungal cream or powder to their feet on a daily basis rather than a lacquer to their nails to prevent recurrence. (Reviewer-Michael S. Kolodney, MD, PhD).

Keywords: Onychomycosis, Terbinafine, Itraconazole

Print Tag: Refer to original journal article

Long-Term Use of Voriconazole Is Associated With Melanoma

Melanoma Associated With Long-Term Voriconazole Therapy: A New Manifestation of Chronic Photosensitivity.

Miller DD, Cowen EW, et al:

Arch Dermatol 2010; 146 (January 18): epub ahead of print

Patients on long-term voriconazole need to be closely monitored for melanoma as well as squamous cell carcinoma.

Background: Voriconazole is a triazole antifungal agent approved by the Food and Drug Administration (FDA) in 2002 for the treatment of serious fungal infections. It is often used as an alternative to amphotericin B for treatment of invasive aspergillosis. It has also found a use for esophageal candidiasis and endemic fungal diseases such as coccidioidomycosis and histoplasmosis. The initial clinical trials for voriconazole showed a low incidence of photosensitivity. However, following FDA approval, long-term use of this drug has more recently been associated with accelerated photodamage and squamous cell carcinoma of the skin.
Objective: To describe a series of 2 patients who experienced pronounced lentiginosis followed by multiple melanomas while undergoing long-term treatment with voriconazole.
Results: The first case was a 39-year-old female with Fitzpatrick type III skin who was placed on voriconazole for coccidioidomycosis meningitis that had become resistant to fluconazole. One year after starting voriconazole, she developed erythema in sun-exposed areas along with brown macules on the extensor extremities and the face. After 35 months on voriconazole, the patient developed a melanoma in situ on the right helix, and subsequently developed 3 additional thin melanomas. The second patient was a 20-year-old male with Fitzpatrick type III skin and chronic granulomatous disease. Two years after starting voriconazole for pulmonary aspergillosis, he developed lentigines on his face, forearms, and dorsal hands; 55 months after starting voriconazole, he was diagnosed with melanoma in situ on his left forearm. Following his melanoma diagnosis, he was switched from voriconazole to posaconazole with fading of his lentiginous pigmentations.
Conclusions: The authors suggest that patients on long-term voriconazole who develop signs of photosensitivity should be closely followed for melanoma.
Reviewer's Comments: Voriconazole manifests as a phototoxic reaction, signs of premature actinic damage, and finally, skin cancer. Although the skin cancers could be coincidental or due to immunosuppression, this possibility seem unlikely as all published cases of skin cancer thought to be associated with voriconazole were also associated with phototoxicity and rapid onset of signs of premature photoaging. The authors' suggestion of aggressive skin surveillance of patients on long-term voriconazole who manifest premature photoaging seems very reasonable. (Reviewer-Michael S. Kolodney, MD, PhD).

Keywords: Melanoma, Voriconazole

Print Tag: Refer to original journal article

Is Ciclosporine Superior to Prednisolone for Adult Eczema?

Prednisolone vs. Ciclosporin for Severe Adult Eczema. An Investigator-Initiated Double-Blind Placebo-Controlled Multicentre Trial.

Schmitt J, Schäkel K, et al:

Br J Dermatol 2010; 162 (March): 661-668

Ciclosporine for 6 weeks is more likely than prednisolone for 2 week to produce stable remission of adult eczema.

Background: Although the majority of adult cases of eczema can be controlled with proper skin care and topical corticosteroids, severe disease and flares of moderate disease require systemic treatments. Systemic corticosteroids are the most commonly used systemic treatment for adult eczema despite the lack of objective clinical trial-based data supporting the use of these agents. In Europe, systemic ciclosporine (CSA) is commonly used as an alternative to corticosteroids for severe eczema. The long-term use of CSA is associated with significant renal toxicity, hypertension, hypertrichosis, and gingival hyperplasia as well as a risk for opportunistic infections. However, short-term use may avoid some of these toxicities. A recent meta-analysis suggested that CSA is actually a superior systemic treatment for severe eczema.
Objective: To directly compare the relative efficacy of prednisolone with CSA for adult eczema.
Design: Investigator-initiated, double-blind, placebo-controlled, multicenter trial
. Participants: 38 adult patients with severe chronic eczema that could not be adequately controlled with topical corticosteroids or topical calcineurin inhibitors.
Interventions: Subjects were randomized to receive either CSA at a constant dosage of 2.7 to 4.0 mg/kg for 6 weeks or prednisolone at an initial dose of 0.5 to 0.8 mg/kg tapered over 2 weeks and followed by placebo for 4 weeks. All subjects applied emollients. Treatment with topical prednicarbate (a low potency corticosteroid) was also permitted.
Methods: Subjects were followed every 2 weeks during active treatment and every 4 weeks during follow-up. Subjective disease severity, patient satisfaction, tolerability, and adverse events were assessed by a blinded observer. Subjects were followed for a total of 12 weeks after the end of treatment.
Results: Stable remission occurred in only 1 of the 21 patients randomized to receive prednisolone compared with 6 of the 17 patients randomized to CSA. Significant exacerbation of eczema during the 12-week observation period caused withdrawal of 10 of the 21 patients in the prednisolone group and 5 of the 17 patients in the CSA group. There were no serious adverse events in the CSA group, but 2 subjects in the prednisolone group had to be hospitalized because of severe eczema exacerbations.
Conclusions: The authors conclude that systemic prednisolone is associated with a very high rate of relapse and the CSA exhibits a lower rate of relapse than prednisolone.
Reviewer's Comments: The dismal rate of stable remission from prednisolone is certainly discouraging. However, the 2-week taper used in the study is probably inadequate. I typically use a 3- to 4-week taper. Moreover, the only topical allowed during the follow-up period was a very low potency agent rather than the mid-potency agent that I typically use for adults. However, based on this study, I am more likely to try the 6-week CSA regimen, especially in patients who have previously relapsed shortly after a corticosteroid taper. (Reviewer-Michael S. Kolodney, MD, PhD).

Keywords: Adult Eczema, Ciclosporin, Prednisolone

Print Tag: Refer to original journal article

Chlorhexidine–Alcohol Significantly Better than Povidone–Iodine

Chlorhexidine–Alcohol versus Povidone–Iodine for Surgical-Site Antisepsis.

Darouiche RO, Wall MJ Jr, et al:

N Engl J Med 2010; 362 (January 7): 18-26

Consider chlorhexidine-alcohol for all non-eyelid surgeries.

Background: Surgery site infections (SSIs) are problematic for both the patient and surgeon. Many are thought to arise from the skin of the patient. No randomized controlled trials comparing the effect of different antiseptic preparations on SSIs have previously been performed.
Participants/Methods: Patients undergoing clean-contaminated surgery in 6 hospitals were randomized to treatment with either preoperative skin preparation chlorhexidine–alcohol scrub or povidone–iodine scrub and paint. The primary outcome was SSIs within 30 days of surgery.
Results: 849 subjects were enrolled (409 in the chlorhexidine–alcohol group and 440 in the povidone–iodine group). Overall, SSIs were significantly lower in the chlorhexidine-alcohol group (9.5% vs 16.1%). Chlorhexidine–alcohol was significantly more effective than povidone–iodine for both superficial incisional infections (4.2% vs 8.6%) and deep incisional infections (1% vs. 3%).
Conclusions: Cleansing with chlorhexidine–alcohol is superior to povidone–iodine for preventing SSIs after clean-contaminated surgery.
Reviewer's Comments: This was a well-powered study looking at a simple question—how does chlorhexidine–alcohol antiseptic compare to povidone–iodine in terms of SSIs. The results of the study were dramatic. The incidence of SSIs in the chlorhexidine–alcohol group was less than half that in the povidone–iodine group. That being said, several important confounders were not controlled for. These include the number of people in the operating room (OR), which is the single biggest contributor to the presence of bacteria in the OR, the length of the surgical procedure, the type of air systems employed, or the type of surgical garb used. Also of concern was the industry-sponsored nature of the trial, and the fact that the study population was not enrolled unless they were expected to be in the hospital for at least 3 days. Therefore, minor surgical procedures, like those performed by dermatologists, were excluded. That being said, for procedures not being conducted near the eye or ear canal, chlorhexidine–alcohol should now be the antiseptic of choice. (Reviewer-Daniel Eisen, MD).

Keywords: Antiseptics, Surgery Site Infections

Print Tag: Refer to original journal article

Dapsone Shows Efficacy for Tx of Pemphigus Vulgaris and Bullous Pemphigoid

Efficacy of Dapsone in the Treatment of Pemphigus and Pemphigoid: Analysis of Current Data.

Gürcan HM, Ahmed AR:

Am J Clin Dermatol 2009; 10 (December): 383-396

Dapsone is underutilized and may be a viable addition to the treatment of pemphigus vulgaris and bullous pemphigoid.

Objective: To retrospectively analyze the data in order to evaluate the efficacy of dapsone and the possible role for this drug in the treatment of patients with pemphigoid and pemphigus.
Methods: The authors performed a retrospective review of the English literature and summarize the results of 427 patients with pemphigus and pemphigoid treated in 35 reports published between 1969 and 2008.
Results: There were 13 studies with 37 patients with pemphigus vulgaris. Overall, 32 of 37 patients (86%) responded to dapsone at dosages between 50 and 200 mg/d used either alone or in combination (prednisone and/or immunosuppressants). Eighteen patients had pemphigus foliaceus. Overall, 14 of the 18 (78%) responded to dapsone in doses between 25 and 300 mg/d. There were 7 reports with 202 mucous membrane pemphigoid patients treated with dapsone at dosages between 25 and 200 mg/d. Overall, 170 patients (84%) responded and 32 did not. There were 6 studies with 170 bullous pemphigoid patients. Overall, 139 of 170 (81%) patients responded to dapsone in doses between 50 and 300 mg/d.
Conclusions: According to the authors, “Dapsone is a promising agent in patients with autoimmune mucocutaneous blistering diseases.” It can be used in younger patients to avoid any long-term side effects of corticosteroids or as adjuvant therapy for patients who are not responding to corticosteroids.
Reviewer's Comments: My therapeutic approach to pemphigus vulgaris patients primarily consists of systemic corticosteroids and immunosuppressant agents. In some patients, however, these agents have significant adverse effects or fail to provide an effective clinical response. Among additional agents, I consider dapsone a first-line agent, mainly because the risk of potentially fatal adverse effects with this drug is lower than that associated with other systemic agents. In my patients with severe, recalcitrant, or recurrent bullous pemphigoid, the addition of dapsone to prednisone and/or immunosuppressives is frequently beneficial. Dapsone is especially valuable to reduce the corticosteroid dose and reduce their side-effects. In sum, I believe that dapsone is underutilized in the treatment of severe cutaneous bullous disorders. The drug is cheap, readily available, and its side-effects are dose related, usually mild, and reversible. Hemolytic anemia is to be expected in most patients. (Reviewer-Carlos Garcia, MD).

Keywords: Pemphigus, Pemphigoid, Dapsone

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