The pace of innovation in modern medicine is truly extraordinary, with novel treatment modalities helping revolutionize patient outcomes. However, even with these impressive strides, physicians may need to reach back into history on occasion to find a fitting therapy when the patient’s disease has not read the proverbial play book. Those treatments with the best evidence are not mentioned here; indeed, those are what we already know and use. Herein we focus on fringe therapies, most with little or mixed evidence, because sometimes, as Celsus reminds us, ‘‘Satius est enim aniceps auxilium experiri quam nullum’’ (It is better to try a doubtful remedy than to try none). We seek to expand the clinician’s armamentarium beyond a one-size-fits-all approach, presenting long-forgotten remedies as diverse as the conditions and patients we treat. We realize that this can be upsetting in an era where evidence is king, and we in no way wish to impugn evidence-based medicine—we’re simply here to dust off some older approaches and explore, particularly for those cases where things are getting desperate. While this is clearly not an exhaustive collection, we hope it will serve as a useful reference, inspiring further investigation and application of these therapies and perhaps sparking ideas for new ones.

**ATOPIC DERMATITIS**

A common, chronic inflammatory disease, atopic dermatitis (AD) is thought to be caused by immune dysregulation and skin barrier dysfunction. This multi-faceted etiology allows for a broad spectrum of treatment approaches, ranging from natural oils to probiotics.

Topical oils, which have anti-inflammatory and antimicrobial properties and are thought to replenish essential fatty acids that may be deficient in AD, hold promise as a therapy in this patient population. Sunflower seed oil has been shown to preserve stratum corneum integrity and improve hydration in patients with AD after four weeks of twice-daily application. A study of evening primrose oil cream showed significant improvement in patient-reported symptoms after two weeks compared to placebo. Similarly, an investigation of borage oil, administered by coating children’s undershirts with the oil for two weeks, demonstrated decreased erythema, itch, and transepidermal water loss compared to controls.

Vitamin B12 has likewise been used as a topical therapy and may work by inhibiting proinflammatory cytokine production. In one study, application of vitamin B12 cream twice daily for eight weeks led to significant improvement in an objective score of AD. Topical coal tar, one of the oldest treatments for AD, also has been shown in numerous studies to be a well-tolerated and effective remedy. Recent work suggests it may act to restore skin barrier function, promoting expression of proteins, such as filaggrin, that are deficient in this disease. In addition, caffeine, a naturally occurring methylxanthine, has proven to be a useful adjunct to topical steroids in AD. A study of 83 patients comparing topical caffeine 30% and hydrocortisone 0.5% in hydrophilic ointment to hydrocortisone 0.5% in hydrophilic ointment...
demonstrated superior improvement in lichenification, excoriation and global impression in the combined group compared to hydrocortisone alone. Several mechanisms have been proposed for this effect. As a phosphodiesterase inhibitor, caffeine increases levels of cAMP, which may be deficient in AD. Further, caffeine is thought to regulate cell death, promoting apoptosis and inhibiting necrosis, thereby decreasing local inflammation.

Additionally, supplements including vitamin D and probiotics have been singled out as adjunct therapies. Vitamin D is inversely correlated with AD severity, perhaps explaining why some patients experience flares of their disease with decreased sun exposure. In keeping with this effect, one study showed that treatment with 1,000 IU of vitamin D2 daily for one month led to disease improvement in children whose AD worsened in the winter. Probiotics, another potential therapy, may work in part by shifting the immune system from a Th2 to Th1 response, thereby protecting against atopy. Lactobacillus therapy for children and adolescents with AD has been shown to significantly decrease disease severity and enhance quality of life after two months, an effect that persisted for several months after discontinuation of probiotics.

Lastly, cannabis and its related compounds may be useful tools for management of AD. Henry Granger Piffard, author of the first textbook of dermatologic therapeutics, noted in his book: “a pill of cannabis indica at bedtime has at my hands sometimes afforded relief to the intolerable itching of eczema.” Supporting this therapeutic potential, palmitoylethanolamine (PEA), an endogenous cannabinoid, demonstrated improved pruritus, lichenification, and excoriation when applied topically in patients with mild to moderate AD. Cannabinoids have been shown to modulate mast cell degranulation in an animal model, suggesting a possible mechanism for this effect.

In addition to symptomatic relief, cannabinoids may promote skin healing and modulate local inflammation. An in vitro assessment of topical cannabinoid receptor 1 agonists demonstrated anti-inflammatory activity in models of both acute and chronic inflammation as well as enhanced recovery of epidermal barrier function. Though our knowledge of this topic is far from complete, cannabinoids are a promising treatment for AD, as well as other inflammatory and pruritic skin conditions, and merit additional studies to elucidate their role in the dermatologic pharmacopoeia.

PSORIASIS
Psoriasis is an inflammatory condition characterized by increased proliferation of keratinocytes and inflammatory infiltration of the epidermis. Because this disease may involve dysregulated interactions between immune and cutaneous cells, many treatments function to decrease inflammation or modulate keratinocyte turnover.

Balneotherapy, or treatment of disease by bathing, is a remedy dating back centuries that is gaining appreciation for its role in symptomatic control of psoriasis. In a variety of different baths, including sodium bicarbonate, tar, and selenium, have shown efficacy in improving psoriatic symptoms such as pruritus and irritation. Sunlight, as a natural source of ultraviolet (UV) radiation, has also been associated with improvement in psoriasis. Fittingly, the combination of UV light with bathing may be even more effective than either component alone. Dead Sea climatotherapy, which involves daily bathing and sun exposure, provides a natural case study for this synergistic treatment. When six weeks of UVB therapy alone was compared to UVB plus saline baths, reduction in an index of psoriasis severity was significantly higher in the combination group, lending support to this phenomenon.
Additional therapies for psoriasis include antibiotics, weight loss, and topical caffeine. Initial evidence for antibiotics as a remedy was drawn from the observation that streptococcal pharyngitis is a common antecedent to guttate psoriasis, and elimination of the bacteria often leads to disease resolution. Consequently, it is advisable to examine the patient for infection and treat accordingly. The concept of “occult infection” was very much en vogue a generation ago. The Doctors Shelley suggested that even if there is no evidence of infection, treatment with erythromycin (250mg qid), an oral antifungal, or metronidazole (250mg tid) may resolve occult infection and consequently improve psoriasis. Another therapy, calorie restriction, may have derived from observation of the correlation between obesity and psoriasis. This effect has been confirmed in a randomized controlled trial showing significant improvement of psoriasis in obese patients following long-term weight loss (mean weight loss was 10.1kg from mean baseline BMI of 34 kg/m²). Lastly, caffeine has shown promise in the treatment of psoriasis. When topical caffeine 10% applied three times a day was compared to placebo, more significant reduction in Psoriatic Area and Severity Index (PASI) scores was observed in the caffeine group after eight weeks, with mild itch as the only side effect.

ACNE

The most common skin condition in the United States, acne vulgaris affects up to 90 percent of adolescents

Tea tree oil (prepared in a 5% gel) has been shown in several studies to decrease both noninflammatory and inflammatory acne lesions as well as associated erythema, with treatments ranging from once or twice daily for four to eight weeks. While contact allergy can be a problem, it is generally well-tolerated. Purified bee venom (PBV) has also been investigated for the treatment of acne. In one study, PBV showed concentration-dependent in vitro antibacterial effects against P. acnes, and a significant decrease in both inflammatory and noninflammatory lesions was observed in patients receiving PBV-containing cosmetics for two weeks. In addition, Vleminckx’s solution is a centuries-old remedy derived by boiling sulfur with lime, which confers greater bioavailability than sulfur’s elemental form. It has been shown to be effective in treating acne, with significantly fewer lesions observed after two weeks of every-other-day application. Though its odor and appearance initially prevented widespread use, Vleminckx’s solution was combined with a mask vehicle in this study, minimizing these unpleasant properties and making treatment more palatable to patients.

Turning to systemic therapies, both non-steroidal anti-inflammatory drugs (NSAIDs) and azole antifungals have demonstrated promise in managing acne. In a study of patients with resistant acne, ibuprofen (600mg qid) was shown to be as effective as erythromycin (250mg qid), with compounding effects when the two were combined. A similar study using combination minocycline (50mg tid) and ibuprofen (400mg tid) resulted in significant improvement in all patients, as measured by number of nodulocystic

“Sunlight, as a natural source of ultraviolet (UV) radiation, has also been associated with improvement in psoriasis. Fittingly, the combination of UV light with bathing may be even more effective than either component alone.”

and may significantly impact psychological well-being. Its pathogenesis involves hyperkeratinization of follicles, increased sebum production, proliferation of Propionibacterium acnes, and inflammation of the pilosebaceous unit, each of which offers a unique therapeutic target.

ASSESSING HYPNOTHERAPY

Warts 10 of 14 patients attained the desired depth of hypnosis, and 80 percent of these experienced complete treatment response—only on the side of the body suggested by the practitioner to resolve.

Molluscum 8 children, all <4 years old, have been successfully treated.

See body for full discussion.
lesions and patient self-assessment. Further, though antibiotics are considered a cornerstone of acne therapy, antifungal medications also deserve consideration. It has been suggested that antibiotics eliminate *P. acnes* but simultaneously allow *Malassezia* to proliferate, preventing complete treatment response. However, ketoconazole is effective against both *P. acnes* and *Malassezia*, and a paper by the late dermatologist William Danby, MD suggests that patients with acne refractory to standard antibiotics may respond to a trial of ketoconazole (400mg weekly for six to eight weeks). Given concern for ketoconazole-induced hepatotoxicity, reasonable alternatives include miconazole and itraconazole, which have demonstrated in vitro activity against *P. acnes*. Lastly, there is the slightly ironic update to the old notion that “chocolate doesn’t cause acne.” A series of papers in the late 1960s and early 70s debated the effect of chocolate on acne. A landmark paper from Plewig and Kligman looked at 65 patients with acne and randomized them to eating two “enriched” bars of chocolate daily against a placebo group. They concluded, “This excessive intake of chocolate and fat did not alter the composition or output of sebum.” Since then, however, multiple studies have confirmed that maintaining a low glycemic load diet over several months significantly decreases acne lesion counts. One trial showed reduction in free androgen index and elevation of insulin-like growth factor binding protein-1, suggesting a possible mechanism for this effect.

**ROSACEA**

Rosacea, a skin disorder characterized by central facial red-
ness, inflammatory lesions, and flushing, is thought to stem from dysregulation of the innate immune system, vascular dysfunction, and microorganism-provoked inflammation.\(^{44}\) As vascular reactivity is thought to play a role in rosacea, clonidine, an alpha-2 adrenergic agonist, has been studied in this population. Though it does not alter the overall disease process, oral clonidine (0.05mg bid) has demonstrated efficacy in minimizing flushing and thus may be a useful adjunct for patients whose primary feature is flushing.\(^{55}\)

Other treatments, including dapsone and salicylic acid, target the inflammatory component of this disease. Dapsone, an antibiotic with anti-inflammatory properties, may be helpful in patients refractory to tetracyclines.\(^{46}\) Topical salicylic acid, which modulates inflammation through inhibition of prostaglandin synthesis, has also proven effective in rosacea.\(^{47}\)

In addition, sulfur, benzyl benzoate, and crotamiton are topical therapies thought to act as sarcopticides, eliminating populations of Demodex folliculorum that exacerbate rosacea. In a trial comparing topical sulfur to oral lymecycline, treatment with sulfur cream 10% resulted in significantly fewer papules and pustules than lymecycline (150mg daily) after four weeks, and these results persisted for six months after completion of therapy. Thus, sulfur may be an equivalent or superior therapy to tetracycline antibiotics, with fewer long-term adverse effects.\(^{48}\) Crotamiton and benzyl benzoate may also be effective in these patients with mite-exacerbated illness, though the data is less robust than for sulfur.\(^{49}\)

**VITILIGO**

An acquired disorder of depigmentation, vitiligo is characterized by complete loss of melanocytes in the affected skin. Its complex pathophysiology has not been fully established but is thought to involve genetics, autoimmunity, oxidative stress, and neural mechanisms, among other influences.\(^{50}\) By targeting these many etiological facets, vitiligo therapies act to recruit new melanocytes to depigmented patches or mitigate the loss of existing melanocytes.

Topical remedies for vitiligo include tar and 5-fluorouracil (5-FU). In one study, crude coal tar solution (300mg/ml applied weekly) coupled with betamethasone cream (0.1% bid) induced significant repigmentation after 10 to 20 treatments; areas treated with betamethasone alone did not demonstrate any effect.\(^{51}\) Topical 5-FU likewise has been shown to be effective in restoring pigmentation. One trial, which combined one-time dermabrasion with 5-FU 5% cream (daily for seven days), showed a response rate of nearly 75 percent at six months after treatment.\(^{52}\) A second study, which examined the combination of epidermal abrasion and topical 5-FU after treatment, showed a response rate of nearly 75 percent at six months. Controls received either 5-FU cream or epidermal abrasion alone, and none of these patients experienced regression and promote repigmentation, even in patients with normal serum levels.\(^{56}\) Vitamin administration in combination with sun exposure induces pigmentation to a greater extent than either therapy alone, suggesting a synergistic effect.\(^{57}\)

In a study of dermatomally-distributed vitiligo, treatment with the monoamine oxidase inhibitor nialamide (50mg tid) resulted in 50 percent repigmentation in more than half of patients. This form of vitiligo is thought to be a unique process secondary to sympathetic nerve dysfunction rather than autoimmune destruction of melanocytes, a theory supported by the lack of efficacy of topical corticosteroid...
Focus on Pruritus

Pruritus may be seen as a manifestation of a number of medical conditions or as a primary condition. In the words of John Savin, "Itching lies neglected in the shadow of pain. It is just as intolerable and an every-day problem in all skin clinics... The similarities between the physiology of itching and pain are very close." The prevalence of this symptom, its impact on patients' well being, and the absence of a widely effective cure call for an evaluation of long-forgotten remedies for itch.

While many itch therapies are etiology-specific, others may be applied regardless of the underlying condition. Simple cooling of the skin or topical application of menthol may also be effective in reducing intensity of pruritus. Though histamine receptors are mainly implicated in urticarial itch, an antihistamine trial is often warranted in patients with unexplained general pruritus. Sedating antihistamines may be more effective than peripherally acting drugs.

For psychogenic itch, a wide variety of psychotropic medications are available. H1-antihistamines, doxepin, mirtazapine, selective serotonin reuptake inhibitors, pimozide, topiramate, and alprazolam have demonstrated efficacy in managing this form of pruritus and can be selected so as to treat both the symptom and any comorbid psychiatric disorder. These treatments overlap with the therapy for neurogenic pruritus as seen in multiple sclerosis (MS) and stroke. MS may present with paroxysmal itching, and carbamazepine (200-400mg tid) has been shown in a small study to be effective in eliminating these pruritic attacks. In addition, unilateral itch can be seen in the aftermath of stroke. One early study points to topical glycerrin and olive oil as well as carbamazepine and amitriptyline as useful treatments for post-stroke pruritus.

Effective therapies are also available for other etiologies of itch, including polycythemia vera (PV), primary aquagenic pruritus, and hemodialysis. One study of iron-deficient PV patients demonstrated that supplementation with ferrous gluconate (300mg tid) or ferrous sulfate (300mg daily) abolished itching after two to 10 days. The authors caution that treatment should continue only for several weeks after the cessation of symptoms to avoid further increasing hemoglobin concentrations.

Another treatment for pruritus in PV is aspirin (500mg tid for seven days), which partially relieves itch triggered by hot bath or shower. Turning to aquagenic pruritus, antihistamines have been investigated with some promise after early studies suggested the condition is associated with local mast cell degranulation. A trial of two patients demonstrated complete resolution of symptoms with cimetidine (200mg qid) and chlorpheniramine (8mg qid) treatment. In another case report, a patient who had failed multiple therapies, including antihistamines, was successfully managed with naltrexone 25mg daily for six weeks, which was later tapered to 25mg every other day. Lastly, for patients undergoing hemodialysis, oral activated charcoal (6g/day for eight weeks) relieved itch in over 90 percent of those studied. This therapy presumably worked by decreasing enteral absorption of pruritogenic substances, though no significant changes in standard laboratory variables were noted.

Aspirin is an overlooked option for the short-term management of itch induced by hot baths or showers.

ALOPECIA

Hair loss comprises a variety of conditions, including androgenetic alopecia, alopecia areata, and chemotherapy-induced hair loss. Androgenetic alopecia affects up to 80 percent of men over their lifetime and results from the effects of dihydrotestosterone (DHT) on androgen-sensitive hair follicles. Characteristically, hair loss occurs as bitemporal recession of the frontal hairline and thinning of the vertex. Alopecia areata is an autoimmune disease of the hair follicles with a prevalence of 0.1-0.2%. In contrast to hormone-mediated alopecia, hair loss occurs in round patches on the scalp and may affect other parts of the body. Chemotherapy-induced alopecia is the result of cytotoxic drugs that target rapidly dividing cells, including hair follicles. Total scalp alopecia typically occurs and may have tremendous negative psychological impact on patients. Fortunately, promising treatment modalities are available for many etiologies of alopecia.

Both pumpkin seed oil and melatonin have shown prom-
ise in the treatment of androgenetic alopecia. Pumpkin seed oil, which has been shown to inhibit 5-alpha reductase and thus decrease androgen levels, led to significant increases in mean hair count and patient self-satisfaction when taken at doses of 400mg daily for six months. Likewise, studies of topical melatonin (0.0033% solution applied daily for three months) have demonstrated increased hair density, reduced hair loss as measured by hair pull test, and improved patient- and investigator-rated alopecia severity.

A diverse variety of treatments has been studied for alopecia areata (AA), including topical onion and garlic, aromatherapy, and cryotherapy. Topical raw onion juice (bid for two months) led to hair regrowth in nearly 87 percent of patients in one study, significantly more than the tap water control. Another pungent remedy, topical garlic gel, has been examined as an adjunct therapy to corticosteroids. After three months of twice daily application, enhanced treatment response was observed with combination garlic gel and betamethasone cream compared to betamethasone alone.

Additionally, aromatherapy, performed by massaging essential oils into the scalp, may promote hair regrowth in AA patients. When essential oils in a carrier oil mixture were compared to carrier oil alone, 45 percent of patients in the essential oil group showed improvement at seven months, compared to 15 percent in the control group. Patients applied the oils themselves and no adverse effects were reported, suggesting aromatherapy may be more tolerable and accessible than current mainstays of AA treatment.

Further, superficial cryotherapy, in which liquid nitrogen is briefly applied to patches of hair loss, is a safe, simple and effective treatment for AA. Liquid nitrogen is applied for several seconds three to four times per treatment, with treatments repeated over the course of three months. In one study, 60 percent of patients experienced either partial or full response; superior response correlated with first disease occurrence and treatment intervals of two weeks or less.

Lastly, for prevention of chemotherapy-induced alopecia, scalp cooling prior to and during intravenous administration of a cocktail of doxorubicin, vincristine, and 5-FU has been shown to significantly decrease hair loss. The mechanism is thought to be localized vasoconstriction, which prevents chemotherapy agents from reaching the hair follicle. Since the initial description of this phenomenon in 1977, scalp cooling devices have been invented to simplify the treatment process, and these devices have been validated in large clinical trials.

**GRANULOMA ANNULARE**

Granuloma annulare (GA), an idiopathic skin lesion, presents as a skin-colored or erythematous annular plaque and may be provoked by a variety of factors including trauma, insect bites, viral infection, and vaccinations. Lymphohistiocytic infiltrate and collagen degeneration are characteristic histologic features, suggesting GA may be caused by a delayed-type hypersensitivity reaction in which macrophages are activated to express proinflammatory cytokines and collagenase. The mechanisms of many treatments for GA are as uncertain as its pathogenesis, though they may function to suppress the immune system through various pathways.

Chlorambucil and methotrexate, medications with immunosuppressive potential, have been examined in the management of GA. Chlorambucil acts as an alkylating agent, decreasing immune function by damaging lymphocyte DNA. It has shown efficacy in patients with generalized GA, including those with severe or refractory disease, when given at low doses (2mg tid) over two to four months. Careful monitoring is required, however, to ensure therapeutic effect is balanced against the complication of bone marrow suppression. Methotrexate, an antimetabolite that inhibits synthesis of purine and pyrimidine bases, may be similarly efficacious. A case report of a patient with generalized GA refractory to dapsone, cyclosporine, and photochemotherapy noted dramatic improvement in response to 15mg methotrexate weekly. The patient’s lesions recurred when treatment was held for a surgical procedure and promptly resolved when the drug was resumed post-surgery.

Additional therapies that have shown benefit in GA include dapsone, niacinamide, and potassium iodide. Dapsone, an antibiotic with anti-inflammatory properties, has been reported to cure generalized GA when given orally (100-200mg daily) for six weeks. Topical dapsone 5% gel applied twice daily over a similar time frame may be useful for localized GA in cosmetically sensitive areas.

“Other resourceful topical wart therapies include banana skin, household cleaners, and hot water. An early case report detailed the cure of a young patient’s plantar warts after six weeks of treatment with banana skin, in which the inner skin of the fruit was secured over warts with tape and replaced daily.”
Molluscum

A virally-mediated disease common in children, molluscum contagiosum is characterized by skin-colored umbilicated papules that often resolve with time. Its unsightly appearance, however, prompts surveillance for more expedient cures than the unaided immune system can provide. Potassium hydroxide (KOH) solution 10% has been found to be effective in treatment of molluscum when applied twice daily for four weeks, with minimal local side effects. When KOH solution was compared to weekly cryotherapy, efficacy at four weeks was equivalent between groups, and KOH led to improved cosmetic results. In addition, cimetidine, a histamine2-receptor antagonist, has been investigated as a potential therapy for patients with molluscum refractory to standard treatment. Histamine receptors are present on suppressor T-cells and serve an activating function; thus, cimetidine is thought to boost cell-mediated immunity by decreasing the activity of these regulatory cells. In one study of patients with refractory disease, oral cimetidine (40mg/kg daily) for two months resulted in full clearance in 70 percent of patients and halting of disease progression in 23 percent.

Further, hypnotherapy, which harnesses the power of suggestion, holds promise in treatment of molluscum. Successful treatment of eight children has been reported; all were younger than four years old, hinting that age may influence response. Interestingly, research on hypnotherapy points to immune modulation as the likely mechanism in treating virally-mediated disease, suggesting this function may unite a diverse array of molluscum therapies.

WARTS

Warts, or verrucae, are stubborn HPV-mediated lesions with a predilection for the hands, feet, face, and mucosal surfaces. Long a source of frustration to clinicians and patients alike, they have yielded a breadth of therapies for lesions refractory to standard management.

Several common medications, including cidofovir, podophyllin, and colchicine, have been used as topical therapies due to their ability to impede rapid cell proliferation. Cidofovir, which inhibits DNA polymerase and thus DNA replication, has been shown to be effective for treatment of viral warts in children and adults. Localized lesions can be cleared after six to seven weeks of nightly application of cidofovir ointment 1%, but intravenous administration may be required for disseminated or recalcitrant verrucae. Similarly, podophyllin, which antagonizes topoisomerase II, has been used for management of condyloma acuminatum. When applied twice a day for three days, podophyllin resin 0.5% yielded an 82 percent cure rate at one week and 61 percent cure rate at three months. Another therapy, colchicine, prevents cell division by disabling the mitotic spindle apparatus. One to two applications of colchicine...
solution 8% have been shown to result in wart clearance, though this effect was much more pronounced in patients who had previously been cured of condyloma compared to those experiencing their first genital wart.97

Other resourceful topical wart therapies include banana skin, household cleaners, and hot water. An early case report detailed the cure of a young patient’s plantar warts after six weeks of treatment with banana skin, in which the inner skin of the fruit was secured over warts with tape and replaced daily. No recurrence was observed after two years of follow-up.98 One study examined the therapeutic properties of liquid ammonia-containing cleaning solutions, such as Ajax. When diluted with three parts water and applied for 10 minutes weekly, these solutions led to clearance of a variety of warts, including verrucae vulgaris and condyloma acuminatum, within five weeks.99

Another simple but effective treatment is balneotherapy with water heated to 45°C, which is sufficient to cause hyperemia but not blistering. Soaking the affected area for one hour twice a week for three months led to resolution in 60 percent of patients included in a trial.100 This therapy can also be a powerful adjunct to salicylic acid by increasing penetration and inducing a local immune response.101

Additional treatments, such as zinc supplementation, intraleisional bleomycin, and hypnotherapy, merit consideration. A trial of oral zinc sulfate supplementation (10mg/kg daily) for two months led to resolution of warts in 87 percent of patients, significantly more than placebo. Treatment response was directly correlated with the increase in serum zinc level.102 In addition, bleomycin, a chemotherapeutic agent that induces breaks in DNA, has been investigated as an intraleisional treatment modality for warts. In a study of 200 patients, 1.5mg/ml bleomycin in lidocaine solution 2% was administered, typically 0.05 to 0.1ml per wart with a maximum volume of 0.5ml per treatment; treatment was repeated every three to four weeks. Nearly 50 percent of warts cleared after one treatment with an additional 40 percent clearing after the second.103

Lastly, hypnotherapy has compelling evidence to support its efficacy in curing warts.104 In a fascinating study, researchers hypnotized 14 patients with the goal of a medium deep level of hypnosis and suggested that the warts on one side of their body would resolve. Ten patients attained the desired depth of hypnosis, and of these, 80 percent experienced complete treatment response and 20 percent had partial response—only on the side of the body suggested by the practitioner. Warts on the contralateral side remained unaffected.105

### CONCLUSION

As William Osler wisely quipped, “I always use the newest medications quickly before their effectiveness runs out.” In an era of rapidly developing and increasingly sophisticated therapies, the astute clinician should not hesitate to reach for forgotten remedies that have stood the test of time. In this way, though the efficacy of newer medications may run out, a patient’s treatment options need not.

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