Dermatologic Therapy, Vol. 16, 2003, 93–97
Printed in the United States · All rights reserved

DERMATOLOGIC THERAPY
ISSN 1396-0296

Homeopathy in dermatology

JOSEF SMOLLE
Department of Dermatology, University of Graz, Graz, Austria

ABSTRACT: Alternative methods are commonly used in patients with dermatologic diseases, with homeopathy being one of the most common. Homeopathy was developed by Samuel Hahnemann (1755–1843) and is based on the law of similars and the law of infinitesimals. It is a regulatory therapy where high dilutions of particular compounds are thought to induce a counterreaction in the organism. In dermatology, homeopathy is often used in atopic dermatitis, other forms of eczema, psoriasis, and many other conditions. To date, however, there is no convincing evidence for a therapeutic effect. There are only a few controlled trials, most of them with negative results. The few studies with positive results have not been reproduced. Acceptance by the patient seems largely based on counseling and emotional care rather than on objective responses to the homeopathic drugs.

KEYWORDS: alternative medicine, homeopathy, natural course, placebo.

Complementary and alternative medicine (CAM) comprises a large body of treatment modalities ranging from acupuncture to shamanism. There is no clear-cut definition of alternative medicine, and various terms are often used in misleading ways (Table 1). A unifying feature that distinguishes alternative concepts from scientific medicine seems to be a relative lack of evidence: in most alternative methods, effectiveness has not yet been proven by clinical trials or scientific proof has not even been attempted. For some decades clinical trials were not considered to be applicable to alternative methods. In recent years, however, there has been increasing willingness to submit alternative treatment modalities to scientific scrutiny as is done in scientific medicine.

Searching the MEDLINE database for recent clinical trials concerning homeopathy and the treatment of skin disease, 26 articles were found for the period from January 1999 to May 2002. During the same time, however, 18,710 articles appeared on the treatment of skin diseases in general, so the homeopathic studies make up no more than 0.14% of these publications. This is in sharp contrast to the general acceptance of alternative methods. In a British survey (1), 17.9% of all children used alternative therapies, often because of skin problems, and the lifetime incidence for the use of alternative medicine in dermatologic patients is 35–69% (2).

Address correspondence and reprint requests to: Josef Smolle, MD, Department of Dermatology, University of Graz, Auenbruggerplatz 8, A-8036 Graz, Austria, or email: josef.smolle@kfunigraz.ac.at.

Background

Homeopathy was developed by Samuel Hahnemann (1755–1843), a German physician who later moved to Paris. The word "homeopathy" is derived from the Greek words *omios* ("similar") and *pathos* ("feeling") (3). The method is based on the law of similars and on the law of infinitesimals (4). The first law denotes the assumption that certain symptoms can be cured when a drug is given that is able to induce the same symptoms in a healthy individual. In this context, homeopathy can be considered as a regulative therapy aimed at inducing counterregulation. The second law defines the rule that the appropriate drug has to be given in high dilutions, and that the higher the dilution, the greater the effect (so-called potentiation). Modern physics and chemistry have shown that some of the dilutions used in homeopathy are so high that virtually no single molecule of the original substance remains in the preparation. For homeopathists, however, the "essence" of the original substance is considered to remain in the water (4), and a "memory of water" has been postulated.

Table 1. Frequently used terms and misconceptions in the context of complementary and alternative medicine

Term	Criticism
Allopathy	Sometimes used for scientific medicine. In fact, allopathy denotes the practice of medicine in the prescience era about 200 years ago and has very little to do with medicine as it is learned in medical schools today.
Experience	Alternative medicine often claims to be based on experience, while scientific medicine is alleged to not rely on experience. Scientific medicine, however, is primarily based on experience including that sampled systematically in clinical trials, while many alternative methods have so far avoided the meticulous and critical collection of experience.
Holistic	Usually applied to theoretical concepts of alternative medicine and claims to understand the patient "as a whole." To understand a patient as a suffering human is not exclusive to alternative medicine, and the search for the many facets of well-being and disease is and should be a challenge for scientific medicine.
Natural	Often erroneously used for alternative medicine. While scientific medicine lives from meticulous observation of nature in any dimension and magnitude, alternative concepts are often based on theoretical concepts and anecdotal reports.
Reproducible	Alternative physicians often claim that nonreproducible methods may still work in individual patients. This assumption is misleading. Only when effects are in some way reproducible does it make sense to treat a patient according to previous experience gained in similar situations. Therefore all medical specialties implicitly assume reproducibility, and should test for it.
School medicine	Often used for scientific medicine today. In fact, the "scholastic" tradition of theoretical concepts once established is a hallmark of many forms of alternative medicine, while a rapid and critical turnover of concepts and methods is typical for scientific medicine.
Traditional	Surprisingly enough, the term "traditional" is often applied to scientific medicine, while it would better suit time-honored methods such as ayurveda, acupuncture, and homeopathy.

While the concept of similars is by no means exclusive to homeopathy, but serves as a basis for vaccination and other stimulatory therapies, the concept of infinitesimals is not compatible with the present knowledge of physics. Several attempts have been made to demonstrate a "memory of water." One of the most well known is an experiment published in *Nature* (5) which indicated a basophil degranulating effect of highly diluted anti-IgE with virtually no antibody left in the solution. The experiment, however, was not reproducible (6).

Clinical evidence

There seems to be a disparity between the worldwide practice of homeopathy on the one hand and the relative paucity of controlled clinical trials on the other. This is not surprising, since the objective effect of any therapeutic measure is always accompanied by the "placebo effect" of the physician and the medical intervention itself, and by the natural course of the disease in a particular patient. Therefore it is more or less impossible for an individual physician or an individual patient to judge whether an observed outcome is related to a particular drug or not. The simplification of *post hoc—ergo propter hoc* ("after it—therefore because of it") is usually misleading. In complex medical situations, the question of the "objective" effect of a medical measure needs to be evaluated by double-blind, randomized controlled trials.

For some decades many homeopathists have claimed that controlled clinical trials would be inappropriate tools for testing the effects of homeopathy. Since the 1980s, however, there has been some change in attitude and an increasing number of homeopathists are willing to carry out clinical studies (7). In 1991 Kleijnen et al. (8) published a meta-analysis of controlled homeopathic trials available so far. Each study was rated according to study design and outcome. Kleijnen et al. (8) arrive at the conclusion that there is a possibility of homeopathic effects, but that sound evidence is still lacking. In 1999, however, Millikan (9) stated that homeopathic indications are mostly legends based on the extension of anecdotal reports.

Dermatologic applications

A summary of dermatologic diseases that have been claimed to be indications for homeopathy was given by Stibbe in 1999 (3). The list ranges

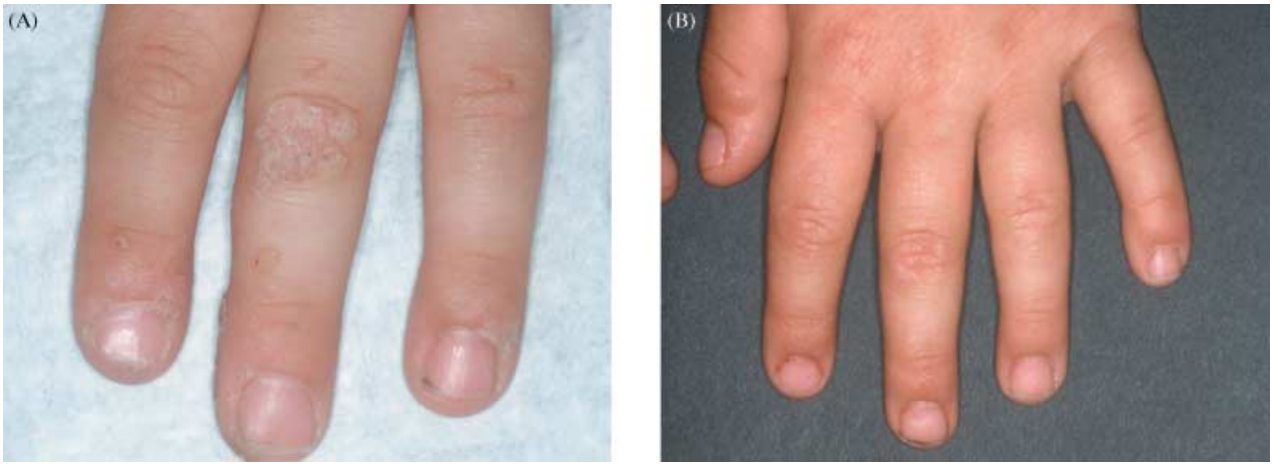

Fig. 1. (A) A 7-year-old boy with common warts on the dorsa of the hands. (B) Remission after 8 weeks treatment with pure placebo in a double blind, placebo-controlled homeopathic trial. For further details see ref. 7.

from abscess to warts and includes acne, rosacea, various forms of eczema, actinic keratoses, and infections. From a quantitative point of view, patients with atopic dermatitis or psoriasis may account for a high proportion of those using homeopathic therapy (2).

So far there have been no randomized, double-blind controlled trials of homeopathy in dermatologic conditions that have proved a positive effect and have been reproduced. There is an isolated report on a significant effect in seborrheic dermatitis (10), and an anecdotal evaluation of a single family in which seborrheic dermatitis had been treated with a homeopathic tobacco preparation (11).

The problem of randomized trials is particularly evident in the study of Balzarini et al. (12) on radiodermatitis. Though there was an advantage for the group of patients treated with homeopathy, numerous parameters were defined and tested, and only one of them turned out to be significant, raising the possibility of statistical multiple comparison bias. In a study on allergic reactions to house dust mite, again a large number of clinical parameters were evaluated (13). Some parameters improved, some worsened, and most remained unchanged, suggesting that the results reflect the natural course of the disease rather than any reproducible treatment effects. An in-depth review of all treatment modalities tested so far in atopic dermatitis by controlled trials could not find any evidence for the effectiveness of homeopathy (14). Remarkably, however, scientific proof for the effectiveness of oral antihistamines in neurodermatitis is also lacking. These findings illustrate that any time-honored therapeutic modalities, be they "conventional" or "alternative," may turn out to be without effect when tested according to stringent criteria.

Further randomized controlled trials with negative results have been performed in patients with common warts (7) (Figure 1) and with plantar warts (15). One of the merits of these investigations was to show that double-blinding and randomization can be combined with treatment individualization as required by homeopathists (7).

The role of anecdotal reports is highlighted by a case discussed by Ehring in 1989 (16). A patient with metastatic melanoma showed a dramatic regression in more than 100 cutaneous metastases during treatment with a complex homeopathic regimen. Though more than a decade has passed since this report, and homeopathic treatment is a common therapeutic measure in melanoma patients (17), no similar report has been presented, which definitely counts against a causative and reproducible relationship between homeopathic treatment and outcome in the initial patient.

A remarkable finding was reported for the topical application of a "homeopathic" zinc chloride paste in two patients with histologically proven epithelial skin cancer (18), which led to the disappearance of the lesions. The preparation was advertised on the Internet as a "natural" treatment modality. In fact, it led to a chemical burn, produced an eschar, and eventually led to scarring, as a tough self-administered variety of Mohs chemosurgery.

Side effects of homeopathic therapy

There may be direct side effects from the constituents of a homeopathic drug, but these are rare because of the extremely high dilutions used. There may also be indirect side effects due to withdrawal of an effective treatment. As direct side effects, chromate dermatitis due to a homeopathic preparation (19) and baboon syndrome with pronounced flexural erythema triggered by mercury (20) have been reported. A chemical burn caused by vinegar occurred in a newborn (21), but it seems doubtful whether this was really a "homeopathic" preparation.

As a major drawback, epidemiologic data on toxic effects of homeopathic preparations (at low dilutions) are scarce. So *Larrea tridentate* was considered to be a safe drug, because there were no laboratory abnormalities in four patients (22).

Indirect side effects with exacerbation of skin conditions because of withholding a more effective treatment are commonly observed, but only occasionally very impressive examples are reported in the literature. The growth of an excessively large melanoma on the thigh of a young women may serve as an illustrative example (23).

Benefits from homeopathic therapy

Though objective therapeutic effects beyond placebo and the natural course of the disease have so far not been demonstrated for homeopathy in dermatology, there may still be benefits. An analysis of the amount spent on drugs in a cohort of patients suffering from allergic disease showed a reduction in drug costs when patients switched to homeopathic treatment (24). Other benefits can be found when patients are asked their reasons for choosing alternative treatments. Very often it is a search for emotional help, better coping with the disease, or the impression of more active participation in the healing process (17).

Conclusion

At the present stage of knowledge, there is no sound evidence for homeopathy in the treatment of skin diseases which would justify its wide application. Clinical trials are lacking and therapeutic suggestions are often based on tradition and beliefs. Homeopathy may be regarded as a vehicle of communication between physician and patient rather than an objectively effective drug therapy. The wide acceptance of homeopathy, however, clearly illustrates that the effectiveness of modern therapeutic drugs cannot satisfy other needs in our patients: they are seeking understanding, counseling, emotional acceptance, compassion, and comfort, in addition to—or sometimes even instead of—a skillful prescription of state-of-the-art medicine.

References

1. Simpson N, Roman K. Complementary medicine use in children: extent and reasons. A population-based study. Br J Gen Pract 2001: **51**: 914–916.
2. Ernst E. The usage of complementary therapies by dermatological patients: a systematic review. Br J Dermatol 2000: **142**: 857–861.
3. Stibbe JR. Homeopathy in dermatology. Clin Dermatol 1999: **17**: 65–68.
4. Asefi M, Augustin M. Regulationstherapie: Behandlung mit unspezifischen Reizen in der Dermatologie aus traditioneller und moderner Sicht [Regulative therapy: treatment with nonspecific stimulants in dermatology in traditional and modern perspectives]. Forsch Komplementarmed 1999: **6(suppl 2)**: 9–13.
5. Davenas E, Beauvais F, Amara J, et al. Human basophil degranulation triggered by very dilute antiserum against IgE. Nature 1988: **333**: 816–818.
6. Maddos J, Randl J, Stewart WW. "High dilution" experiments: a delusion. Nature 2002: **334**: 291–291.
7. Smolle J, Prause G, Kerl H. A double-blind, controlled clinical trial of homeopathy and an analysis of lunar phases and postoperative outcome. Arch Dermatol 1998: **134**: 1368–1370.
8. Kleijnen J, Knipschild P, ter Riet G. Clinical trials of homoeopathy. BMJ 1991: **302**: 316–323 [published erratum appears in BMJ 1991: **302**: 818].
9. Millikan LE. Anecdotal therapies. Adv Exp Med Biol 1999: **455**: 407–411.
10. Garrett R. Homeopathy deserves more of this journal's attention. Altern Ther Health Med 2002: **8**: 18.
11. Sudan BJ. Abrogation of facial seborrhoeic dermatitis with homoeopathic high dilutions of tobacco: a new visible model for Benveniste's theory of "memory of water." Med Hypotheses 1993: **41**: 440–444.
12. Balzarini A, Felisi E, Martini A, De Conno F. Efficacy of homeopathic treatment of skin reactions during radiotherapy for breast cancer: a randomised, double-blind clinical trial. Br Homeopath J 2000: **89**: 8–12.
13. Lewith GT, Watkins AD, Hyland ME, et al. Use of ultramolecular potencies of allergen to treat asthmatic people allergic to house dust mite: double blind randomised controlled clinical trial. BMJ 2002: **324**: 520.
14. Hoare C, Li-Wan-Po A, Williams H. Systematic review of treatments for atopic eczema. Health Technol Assess 2000: **4**: 1–191.
15. Labrecque M, Audet D, Latulippe LG, Drouin J. Homeopathic treatment of plantar warts [see comments]. Can Med Assoc J 1992: **146**: 1749–1753.
16. Ehring F. Regression von ueber 150 Hautmetastasen eines malignen Melanoms bei homoeopathischer Komplextherapie. Hautarzt 1989: **40**: 23–27.

17. Sollner W, Zingg-Schir M, Rumpold G, Fritsch P. Attitude toward alternative therapy, compliance with standard treatment, and need for emotional support in patients with melanoma. Arch Dermatol 1997: **133**: 316–321.
18. Brown C-WJ, Goldstein GD, Birkby CS. Auto-Mohs.com. Dermatol Surg 2001: **27**: 975–978.
19. Miehle W. [Controversial and so-called alternative therapeutic approaches]. Z Rheumatol 1987: **46**: 1–12.
20. Audicana M, Bernedo N, Gonzalez I, Munoz D, Fernandez E, Gastaminza G. An unusual case of baboon syndrome due to mercury present in a homeopathic medicine. Contact Dermatitis 2001: **45**: 185.
21. Korkmaz A, Sahiner U, Yurdakok M. Chemical burn caused by topical vinegar application in a newborn infant. Pediatr Dermatol 2000: **17**: 34–36.
22. Heron S, Yarnell E. The safety of low-dose *Larrea tridentata* (DC) Coville (creosote bush or chaparral): a retrospective clinical study. J Altern Complement Med 2001: **7**: 175–185.
23. Benmeir P, Neuman A, Weinberg A, et al. Giant melanoma of the inner thigh: a homeopathic life-threatening negligence [see comments]. Ann Plast Surg 1991: **27**: 583–585.
24. Frenkel M, Hermoni D. Effects of homeopathic intervention on medication consumption in atopic and allergic disorders. Altern Ther Health Med 2002: **8**: 76–79.