

# Is the alternative medicine a real alternative in adult atopic dermatitis? Experiences of 125 patients

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## Abstract

**Introduction:** The prevalence of adulthood Atopic Dermatitis (AD) is increasing worldwide. AD patients tend to prefer Alternative Therapy (AT), despite the lack of evidence-based results. While the effect of AT is usually placebo-equal, it's unexpected or harmful side-effects have already been documented.

**Aim:** Aim of the study was to map the frequency of using AT among adult AD patients, to list the most common AT and to collect the patients' own experiences about the tried methods. A total of 125 adult AD patients (91 women, 34 men, range: 18-66 years) were involved in this study. Data regarding the tried AT were collected retrospectively.

**Results:** 67 patients (54%) tried at least one AT to treat their AD. Some patients tried more AT, the 67 patients had 104 attempts in all. Most popular AT were homeopathy (34%), aloe vera products (27%), herb brews (18%), and acupuncture (15%). According to patients' observation skin symptoms of 8 patients (12%) improved after using some AT, while 8 patients' (12%) skin symptoms failed by using AT. As reported by the patients, most of the attempts (86/104, 83%) were inefficient.

**Conclusion:** According to our data, most of the adult patients have unsatisfying experiences with the vast majority of the tried AT in the therapy of AD symptoms. Both the high number of patients trying these methods and the inefficient attempts are noteworthy.

## Introduction

Atopic dermatitis is a chronic, pruritic, inflammatory skin disease, that affects mostly children, but also many adults. The prevalence of AD is increasing worldwide. The prevalence of adulthood AD is 1-3% at present, the number of adult cases may increase further [1-5]. Many patients do not accept the genetic determination and chronic-recurring course of AD. They become dissatisfied with the conventional medical treatment or are afraid of side-effects of particular drugs (steroid-phobia). These patients turn often to AT. The efficacy of alternative methods is often based on lay informations. The application and the doses are not standardised. Of the applied therapies, homeopathy, acupuncture and herbs are the most common. The majority of these methods are inefficient, dangerous side-effects may occur [3,6-9].

## Patients and methods

In our study 125 adult AD patients (P)/91 women (73%) and 34 men (27%) were involved from our Atopic Department. The diagnosis of AD based on the Hanifin- Rajka criteria [1-4,8]. The youngest patient was 18, the oldest was 66 years old at the time of the study. The average age was 28 years. Data according the tried alternative methods, patients' experiences and observations were documented. Patients were asked to list the AT tried for the therapy of their AD in the past. They were asked to value the effect of the AT on the skin status: symptoms improved (IP) (itching or/and erythema and dryness becoming milder); worsed (W); or the AT was inefficient (IE).

The work has been approved by the ethical committees related to the institution in which was performed and the subjects gave informed consent to the work.

## Results

### Alternative therapies, methods used by adult AD patients

Among the 125 patients 58 patients (46%) didn't use any AT for the treatment of AD symptoms, 67 patients (54%) used at least one AT: 52 women (57% of the women) and 15 men (44% of the men). Some patients tried more AT; the 67 patients had a total of 104 attempts. The maximum number of the attempts (methods or therapies) tried by one patient was seven (P25) (Table 1).

The applied AT were homeopathy, aloe vera products, herb brews (chinese, soothing, detoxifying, lymphatic system detox teas), acupuncture, Biopton lamp, naturopathy (reflexology, energy transfer, bioresonance), local herb preparations (calendula cream, mixed herb cream, camomile pack), supplementaries and diets (sea-buckthorn, fish oil, immunity booster, oiltree extract, algae and cranberry capsules), per os herb extracts (calendula and green barley extract, grapefruit drops, ginseng), herb soaps (calendula and tea tree soap), liquid diet (carrot and beet juice), yoga and meditation (Table 2).

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**Table 1.** AT tried by adult patients for AD symptoms.

F: female, M: male, IE: inefficient, W: worsed, IP: improved

	Sex	Age	Alternative therapy	Patient's own observation
1	F	21	aloe vera products	IE
2	M	18	—	
3	F	28	—	
4	F	19	—	
5	F	35	—	
6	F	30	—	
7	F	24	homeopathy	IE
8	M	29	—	
9	F	27	—	
10	M	31	sea-buckthorn capsules	W
			aloe vera products	IE
11	F	52	homeopathy	IE
12	F	23	camomile pack	IE
13	F	24	—	
14	F	56	local herbs	IE
15	M	23	—	
16	M	26	homeopathy	W
			chinese tea	IE
			fish oil capsules	IE
			acupuncture	IE
17	M	40	—	
18	F	35	—	
19	M	22	—	
20	F	22	—	
21	F	28	green barley extract	IE
22	F	31	grapefruit drops	IE
23	F	25	homeopathy	IE
24	F	27	—	
25	M	18	calendula soap	IE
			teatree soap	IE
			aloe vera products	IE
			„immunity booster” capsules	IE
			„detoxifying” tea	IE
			„lymphatic system detox” tea	IE
26	F	62	—	
27	F	21	Bioptron lamp	IP
			Calendula extract	IE
28	F	19	—	
29	F	27	—	
30	M	25	—	
31	F	32	homeopathy	IE
			aloe vera products	IE

32	F	21	—	
33	M	28	acupuncture	IP
34	F	37	beet juice	IE
			carrot juice	IE
35	F	20	—	
36	F	52	aloe vera products	IE
37	F	27	acupuncture	W
38	F	33	—	
39	F	21	aloe vera products	IE
40	F	20	Bioptron lamp	IE
41	F	21	aloe vera products	IE
42	F	30	—	
43	M	40	—	
44	F	28	—	
45	M	26	calendula extract	IE
			herb brews	IE
			homeopathy	IE
46	F	29	aloe vera products	IE
47	F	20	homeopathy	IE
			acupuncture	IE
48	F	25	—	
49	F	24	yoga	IE
50	F	27	herb brews	IE
51	F	25	mixed herb cream	IE
52	F	21	homeopathy	IE
53	F	22	—	
54	F	28	—	
55	F	47	homeopathy	IE
56	F	25	Aloe vera products	W
			herbl brews	IE
			acupuncture	IE
			„energy transfer”	IE
57	M	23	—	
58	F	28	homeopathy	IE
59	F	20	—	
60	F	34	acupuncture	IE
			juice fasting	IE
			meditation	IE
61	M	29	„soothing” tea	IE
62	M	23	herb extract	IE
63	M	19	—	
64	F	40	—	
65	F	24	homeopathy	IE
66	M	26	—	
67	M	30	aloe vera products	IE
68	F	21	—	

69	F	21	Bioptron lamp	IP
70	F	27	aloe vera products	IE
			homeopathy	IE
71	F	24	plantar massage	IE
72	F	24	aloe vera products	IE
73	F	34	—	
74	F	33	—	
75	F	19	Bioptron lamp	IE
			soap of herbs	IE
76	F	35	calendula cream	IE
77	F	24	—	
78	F	38	—	
79	M	28	homeopathy	IE
80	F	54	aloe vera products	IE
81	F	25	Bioptron lamp	IE
82	M	32	herb brews	IE
83	F	22	homeopathy	IE
84	F	27	—	
85	F	21	mixed herb cream	IE
86	F	25	calendula cream	IE
87	F	21	—	
88	F	34	—	
89	M	21	—	
90	M	18	—	
91	M	23	—	
92	F	27	homeopathy	W
			oiltree extract capsules	IE
93	F	30	algae capsules	IP
94	M	35	—	
95	M	22	„bioresonance”	IE
96	M	32	herb brews	IP
97	F	21	homeopathy	W
			Bioptron lamp	IP
98	F	20	homeopathy	W
			calendula cream	W
			acupuncture	IP
99	F	42	aloe vera products	W
100	F	30	aloe vera products	IE
			ginzeng	IE
101	F	29	homeopathy	IE
			acupuncture	IE
			“energy transfer”	IE
102	F	20	homeopathy	IE
103	F	22	—	
104	M	20	Bioptron lamp	IE
105	F	25	herb brews	IE

106	F	29	—	
107	F	20	—	
108	F	23	—	
109	F	57	—	
110	M	66	—	
111	M	23	—	
112	M	27	—	
113	F	26	herb brews	IE
114	M	30	homeopathy	IE
			aloe vera products	IE
115	F	33	homeopathy	IE
			acupuncture	IE
			plantar massage	IE
			“naturopathy”	IE
116	M	25	—	
117	F	29	homeopathy	IE
			plantar massage	IE
118	F	22	homeopathy	IE
			cranberry capsules	IE
119	F	19	—	
120	F	41	acupuncture	IP
			aloe vera products	IP
121	F	20	—	
122	F	18	—	
123	F	31	herb brews	IE
			aloe vera products	IE
124	F	25	—	
125	F	26	—	

**Table 2.** Frequency of AT tried by adult AD patients.

Method	No. of patients, tried this method	% of patients tried AT (n= 67)
homeopathy	23	34%
aloe vera products	18	27%
herb brews	12	18%
acupuncture	10	15%
Bioptron lamp	7	10%
naturopathy	7	10%
local herbs	7	10%
supplementary, diets	6	9%
per os herb extracts	6	9%
herb soap	3	4.5%
liquid diet	3	4.5%
yoga, meditation	2	3%

### Patients' observations according to the efficacy of the alternative methods and therapies

According to the patients' observations, improvement of the skin symptoms (itching or/and erythema and dryness becoming milder) was reported by 8/67 patients (12%) due to the listed AT (Table 3). It means 9 attempts out of 104 (8.6%): Biopton lamp (P27, P69, P97), acupuncture (P33, P98, P120), herb brews (P96), supplementaries and diets - algae capsules (P93), and aloe vera product (P120).

Worsening of the AD symptoms was reported by 8 patients (12%), it means 9 attempts out of the 104 (8.6%): homeopathy (P16, P92, P97, P98), aloe vera products (P56, P99), acupuncture (P37), supplementaries and diets - sea-buckthorn capsules (P10), calendula cream (P98) (Table 4).

Most of the patients reported inefficiency of the AT tried for AD symptoms (86/104 attempts 83% were inefficient). The most common inefficient methods were: homeopathy, aloe vera products and herb brews (Table 5).

**Table 3.** Effective therapies reported by adult AD patients.

Therapy	No. of patients, reported improvement	% of patients tried AT (n= 67)
Biopton lamp	3	7
acupuncture	3	10
herb brews	1	12
supplementary, diet	1	6
aloe vera products	1	18

**Table 4.** Flare up of AD symptoms by using AT reported by the patients.

Therapy	No. of patients, reported flare up	% of patients tried AT (n= 67)
homeopathy	4	23
aloe vera products	2	18
acupuncture	1	10
supplementary, diet	1	6
local herbs	1	7

**Table 5.** Inefficient AT according to the observations of adult AD patients.

Therapy	No. of patients, reported inefficiency	No. of patient, tried this method
homeopathy	19	23
aloe vera products	15	18
herb brews	11	12
naturopathy	7	7
acupuncture	6	10
local herbs	6	7
per os herb extracts	6	6
Biopton lamp	4	7
supplementary, diet	4	6
herb soap	3	3
liquid diet	3	3
yoga, meditation	2	2
yoga, meditation	2	2

### Discussion

Alternative therapies and methods are very popular all over the world; in the dermatological practice mostly among patients with AD, acne and psoriasis [6,7,9,10]. Atopic dermatitis is a chronic, itching skin disease and conventional medical therapies give sometimes inadequate symptom management. Patients are often disappointed and turn to alternative solutions. About a half of all AD patients try AT [7,11]. It is a popular misbelief that natural methods do not have any side effects. Patients do not consider alternative treatments to be medicines in the traditional sense of the word. The results are contradictory, controlled studies are rare or lacking [3,7,10-12].

The most common AT in the general population are homeopathy, acupuncture, diets and supplementaries, massages, aroma therapy and herb remedies (teas, capsules, creams, oils and inhalation sprays). In Japan the herb treatments, in the USA diets and vitamins and in Europe homeopathy products are very popular. Most of the methods have no effect at all. There are only few data supporting the efficacy of alternative therapies tried for adult AD [2,6,7,10-12].

Homeopathy is presented as one of the main AT both in the medical literature and lay magazines. Although the number of people trying homeopathy has been increased continuously, the randomised, placebo controlled studies are missing. Searches involve only few patients and brought so far contradictory results. Most of the patients using homeopathy are women and suffer from chronic diseases (migraine, AD, asthma, allergic rhinitis). In many studies are the methods of poor quality, they give few evidence for the use of homeopathy for the treatment of AD [4,11,13,14].

There are very few reports on the efficacy of homeopathy in adult AD. Itamura *et al.* reported that homeopathy resulted improving of skin symptoms and quality of life of adult AD patients: sleep disturbances relieved, itching decreased [14,15]. Besides favourable results, authors note that very few controlled data and clinical tests are available about the real efficacy of homeopathy in skin diseases. Placebo controlled investigations are missing [4,8,14,15].

Food is a relevant provoking factor in 35-40% of AD children, but only in 1-2% of adult patients. If an adult AD patient observes the worsening of skin symptoms after food consumption, one should first consider a pollen associated cross reaction [16-20]. The itch- and dermatitis-provoking effect of biogen amins (*eg.* in red wine, cheese) is well-known [22]. Some authors reported the effects of low calory diets in adult AD. According to the results of Nakamura *et al.* [21] and Tanaka *et al.* [22] low calory diet resulted the improvement of skin symptoms: itching, and the sleep disturbance becoming milder. A significant decrease of the SCORAD index, LDH5 activity, eosinophil number, peripheral NK activity and neutrofil number and PGE2 synthesis of monocytes was shown. The serum total IgE did not decrease significantly, and the allergen specific IgE values did not change. The synthesis rate of IL4 /IFN $\gamma$  increased [22]. Kim *et al.* reported 7 adult AD patients with refractory skin symptoms treated with detoxification combining fasting with fluid therapy [23]. The findings are thought-provoking, yet due to the low number of reported patients, a clear correlation between short or long-term fasting and an improvement of AD symptoms cannot be shown - further controlled investigations are necessary to confirm it.

In up to 70% of AD patients (mainly women) emotional events and stress are responsible for the worsening of skin symptoms [24-26]. In atopics stress causes a temporary rise of eosinophil count in the

peripheral blood; IgE, IFN $\gamma$  and IL-5 levels increase too, whereas that of cortisol decreases [26]. The interpretation of stress is very subjective, anxiety, frustration, aggression may lead to a flare up of dermatitis in adults. The disease itself may be also a stress factor. Due to the visible skin symptoms stigmatisation, partnership and existential problems may occur. Autogen training, relaxation techniques, behaviour, family, group and art therapies can support the dermatological treatments [25,26]. According to the interesting study results of Kimata [27,28], a relaxed, good mood is useful for atopic patients.

Hypnosis has been used in medicine since ancient times. In dermatology it is not widespread, it is mainly used for pain and itch relief and to treat verruca [24]. Since AD patients are disposed for anxiety, theoretically, hypnosis may be a solution for detecting and dissolving the scratch-and-itch circle. There are very few published data on the efficacy of hypnosis in adult AD. According to the results of Stewart *et al.* [29] the itch, scratch, sleep disturbances and tension decreased significantly by hypnotherapy of adult AD patients.

Herb remedies, botanical extracts are common used in cosmetics and in local and systemic therapies of skin diseases. These therapies are very popular also among AD patients. Beside favourable effects their application is risky, as in case of an allergy the patient may respond to the particular plant with a hypersensitivity reaction. Some authors note that more controlled clinical studies are needed to determine the real efficacy and risks of plant therapies. Among side effects hypersensitivity reactions, cross reactions and photodermatitis have to be taken into account above all [30,31]. Fragrance mix I. and balsam of Peru belong to the most common environmental contact allergens in adult atopics. Thus, the popular aroma-therapies may flare the AD in case of hypersensitivity to certain components [4,5,31-33]. Only very few clinical trials have been published with herb products focused on adult AD therapy, the data are limited. Results [34] on 18 AD patients suggest that hyperforin (major constituent of *Hypericum perforatum* /Saint John's wort/) has antiinflammatory and antibacterial effect in AD: the intensity of the symptoms improved and the skin colonisation with *Staphylococcus aureus* reduced due to the therapy. Donsky *et al.* [35] demonstrated on 42 adult AD patients that a local treatment with a *Mahonia aquifolium* extract resulted significant improvement of the skin symptoms. Japanese herb Kampo drugs (Shiunko) has a long history in treatment of some inflammatory diseases. It may have antibacterial effects on *Staphylococci*, and so may be an effective treatment for AD [36]. Uehara *et al.* [37] suggest that the beneficial effects of the oolong tea in adult AD may be the result of the antiallergic properties of tea polyphenols. Aromatherapeutic creams and popular volatile oils may provoke AD skin symptoms in case of hypersensitivity to the components. They may be risky also for therapists who perform the treatment (eg.massage) as well [8,9].

Korean Medicine (KM) is used in many patients with AD. Kim *et al.* reported three pregnant women treated with KM (including acupuncture, herb medicine and herb wet dressing). According to the data, the skin symptoms improved after treatment. There was no hepatic or renal toxicity, nor were any adverse maternal or fetal, neonatal effects [38].

Traditional Chinese Medicine (TCM) is one of the most popular form of AT. Despite its widespread use, frequently neither therapists, nor patients are aware of the ways of applying TCM and of its possible toxicity. Young adults turn to TCM because it is thought to have no side effects, because of the inefficiency of medical treatments and for the recommendations of friends or family [39]. As TCM therapy,

patients are given herb preparation (tea, brews, tablets, capsules, creams or ointments). Its terminology significantly differs from that of western medicine: atopic dermatitis as a diagnosis does not exist in that system. The bases of the pharmacological and immunological effects of TCM herb therapies in AD are unclear, but it is known that particular plants have anti-inflammatory effects. They relax smooth muscles, provoke peripheral vasodilation, have antimicrobial effects, influence prostaglandin metabolism, increase IL2 and IL3 receptor expression. Some various brews may consist 10-12 or even 30 plants, which are considered to have synergic effects in mixture. Several plants may contain pharmacological active agents applied in unknown concentrations. TCM may have some benefit for AD lesions, but the results are conflicting and reports on serious hepatotoxicity raise potential safety concerns. Well-designed, placebo-controlled clinical trials are warranted to evaluate the efficacy and safety of the use of TCM in adult AD [2,3,39-45].

The TCM - studies in children and adult AD gave contradictory results. The effects of TCM herb preparations on AD are: decrease of pruritus and improvement of skin symptoms. These effects are usually temporary and are common in patients, whose skin symptoms are not exudative and not superinfected. As side-effects, reversible liver enzyme increase, hepatotoxicity, reversible dilatative cardiomyopathy have been reported, mild abdominal pain and headache were observed. One should consider pregnancy, breastfeeding, childhood, liver and heart diseases as contraindication of TCM [12,39-44].

Acupuncture is one of the most popular AT. In dermatology, acupuncture has been found useful in acne, postherpetic neuralgia, psoriasis and some cases of urticaria. Its mechanism is not clear yet, it may exerts the effects by endorfin streaming and by steroid release induced by the activation of the hypothalamus-hypophysis axis [46,47]. Itch is one of the leading symptoms in AD, treated in the practice mostly with antihistaminic. The quality of life of atopic patients is worsened most of all by strong pruritus: it may cause sleep disorder, problems in concentration, and social isolation, which, by triggering negative emotions again, produces a *circulus vitiosus*. There are very few reports on the efficacy of acupuncture in the itch of adult AD. Acupuncture alone or in conjunction with TCM decreases symptoms of AD but the evidence is confined to small studies of limited quality. Salameh *et al.* [46] reported an investigation on 20 AD patients who were given a combined treatment of acupuncture and Chinese herbal medicine. The results suggest that this combination has a beneficial effects on AD symptoms and may gives better results than Chinese herbal medicine alone. According to the data of Pfab *et al.*, both acupuncture and cetirizine significantly reduced type I hypersensitivity itch in patients with AD, compared with placebo [48,49]. Lee *et al's* preliminary results show, that acupressure for 4 weeks suppressed pruritus and lichenification in adult AD patients [50].

In summary, 125 adult AD patients (91 women, 34 men) were involved in this study. 67 patients (52 women, 15 men) tried some kind of AT to treat AD their symptoms. The 67 patients had 104 attempts in all. According to the data in the literature, homeopathy and herb preparations were very popular among our patients to. Common therapies were different aloe vera products – however, we didn't find any data in the literature about it's efficacy in adult AD. Hypnotherapy and TCM were not used at all by our adult AD patients. Most popular AT were homeopathy (34%), aloe vera products (27%), herb brews (18)%, and acupuncture (15%). According to our patients' observations the skin symptoms of 8 (12%) patients improved due to any alternative

therapy, the skin symptoms of 8 (12%) patients worsened by using AT and 83% of all attempts were inefficient.

## Conclusion

Data about the efficacy of the alternative therapies in adult AD are very limited in the literature. Although some methods are recommended in some cases, the observations of our patients can confirm that most of the AT have no effects on AD symptoms. It is important, that 54% of our patients tried at least one AT: this result focuses the attention on the importance of the AT in the medical history of adult AD patients. Although we were able to depend only on the patients' own observation, the high number of the reported inefficient attempts and the high inefficiency-rate of the most popular methods are noteworthy. Alternative therapies alone or in combination should be considered in the background of non-responder AD to. The effects of the alternative methods should be evaluated in further studies with large patients cohorts, in comparison to standard medical therapeutic agents. Because of possible adverse effects or therapy resistance, clinicians should enquire about and encourage patients to give informations about any alternative therapies that are being used. Patients should be advised that AT have not undergone sufficient evaluation of efficacy or safety [2,3]. Due to the lack of evidence-based international standards and data, we can offer some methods only additionally, and not as a real alternative in the treatment of adult AD.

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