

Research Article

## Preliminary Long-Term Results of Homeopathic Treatment of Atopic Diseases in Adult Patients

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**Academic Editor:** Mariella Di Stefano

**Special Issue:** [Experience and activities of the Regional Tuscan Centre for Integrative Medicine](#)

*OBM Integrative and Complementary Medicine*  
2019, volume 4, issue 2  
doi:10.21926/obm.icm.1902038

**Received:** November 01, 2018

**Accepted:** June 03, 2019

**Published:** June 20, 2019

### Abstract

**Background:** Since the incidence of allergic diseases and asthma is increasing worldwide, particularly in Western countries, there is an increasing need to find novel interventions to treat them. Globally, 300 million people suffer from asthma, 200 to 250 million from food allergies, 20-25 million from drug allergies, and 400 million from rhinitis.

**Aim:** To study the effects of homeopathic therapy on adult patients affected by atopic diseases, who were examined at the Homeopathic Clinic of Lucca (Italy), and monitor the long-term development of their condition over a period of approximately eight years.

**Materials and Methods:** An observational longitudinal study was conducted on adult patients with atopic diseases that were treated at the clinic from 1998 to 2017. In addition, a long-term study was conducted on a subset of 45/104 adult patients that were examined from 2006 to 2012, with a follow-up of more than five years. The results were assessed in relation to the Impact on Daily Living (ORIDL) scale. An evaluation was made during each patient's visit, during which the patient described his or her clinical situation, which was translated into a score by the doctor.



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**Results:** A total of 563 adult patients were monitored. Of them, 202 (35.9%) patients suffered from atopic dermatitis (AD), 204 (36.2%) from allergic rhinitis (AR), and 157 (27.9%) from asthma. Among the treated patients, 69.3% showed a moderate to major improvement (71.1% in case of asthma as the primary disease, 69.8% in AR, and 67.1% in AD). At re-examination after 5-12 years, a complete remission of the atopic symptoms was observed in 69.5% of the subjects (100% for AD, 59.2% for AR, and 75% for asthma). Adults with more than one atopic disease on the first examination were recovered completely in 54.3% of the cases.

**Conclusions:** The findings seem to confirm that homeopathic therapy can yield positive results in adults with atopic diseases.

### **Keywords**

Atopic diseases; adult patients; homeopathic treatment; short- and long-term results

## **1. Introduction**

The term "atopy" was introduced in 1923 by Coca and Cooke and originated from the Greek word *átopia*, meaning "out of place" [1]. Atopy refers to an inherited tendency to produce IgE in response to small amounts of common environmental antigens. This term was originally limited only to asthma and allergic rhinitis (AR), but in 1933, its use was extended to include atopic dermatitis (AD). More recently, the term "allergic march" was introduced to refer to the natural progression of atopic disorders. This begins with dermatitis and the concomitant sensitization to food and aeroallergens in early childhood, and then progresses to asthma and AR in later childhood or adulthood [2].

The prevalence of allergic diseases and asthma is increasing worldwide, particularly in Western countries. Globally, about 200 to 250 million people suffer from food allergies. According to the World Health Organization, 300 million people have asthma and based on the rising trends, this figure is expected to increase to 400 million by 2025 [3]. Over 500 million people are affected by AR [4], with widely varying country-wise figures (5-40%). It generally develops during late childhood but is most common in adults between 20 and 40 years of age, after which the incidence gradually diminishes. In several subjects with hay fever, symptoms decline in mid- and late adulthood. These symptoms appear in response to grass and tree pollen, indoor allergens including furry pets, and household dust mites [5]. Most individuals present seasonal symptoms but around 25% experience perennial symptoms.

Recently, the use of complementary and alternative medicine (CAM) in the treatment of immunological and allergic conditions has increased. According to the National Center for Complementary and Integrative Health (NCCIH), the term "complementary and alternative medicine" refers to medicinal products and practices that are not part of standard medical care. If a non-mainstream practice is used in combination with conventional medicine, it is termed as "complementary". If it is used instead of conventional medicine, it is called "alternative" [6]. Worldwide, over 200 million people use homeopathic treatment on a regular basis and 29% of the EU's population use homeopathic medicine for routine healthcare [7]. In Italy, 21.2% of the

population (+ 6.7% compared to 2012) relies on complementary medicines, of which homeopathy is the most preferred (76.1%) [8].

A recent survey on the use and adverse effects of CAM was carried out by members of the American Academy of Allergy, Asthma, & Immunology (AAAAI), who examined patterns of usage of CAM and reported that 81% of the practitioners that responded to the survey had patients using CAM treatment instead of conventional therapies [9]. More than 20% of the population of the United States suffers from atopic disorders such as asthma, AR, and AD, of which over 42% (both adults and children) have used CAM for treatment of their atopic disorders [10]. The prevalence of CAM for the treatment of allergic diseases is even higher in certain European countries [11]. Several different studies in the literature have demonstrated the effectiveness of homeopathy in AR [12-15], asthma [16-20], and AD [21-27].

### **1.1 The Homeopathic Clinic, Lucca**

The Homeopathic Clinic at Lucca (Italy) was established as a pilot project in 1998 with funding from the Region of Tuscany. The aim of this project was to investigate whether complementary medicine (CM) could be included in the public healthcare system [28]. In 2002, a Regional Reference Centre for homeopathy was established at Lucca [29], and since 2017, the Homeopathic Clinic of Lucca has acted as the CM Coordination Center for the Local Health Authority Tuscany North-West [30].

In 2012, we published a study on the long-term progression of atopic diseases in children that were treated with homeopathy at the Homeopathic Clinic of Lucca and followed up after approximately eight years (range 5-10 years) [31]. In 2016, we extended the scope of our research to AR and asthma as well [32]. We treated several patients with atopic diseases in whom the onset of the disease occurred in adulthood. In early adulthood and middle age, respiratory and skin manifestations are typically related to occupational exposures, lifestyle, and habits such as tobacco smoking. Although allergic symptoms tend to decrease and disappear during late adulthood, some patients develop new-onset allergy or asthma in old age [33]. There is a lack of information regarding the prevalence and prognosis of atopic diseases in adults.

This study aims to fill that gap by analyzing the short- and long-term outcomes of homeopathic treatment of atopic diseases in adult patients.

## **2. Aim of the Study**

Our aim was to study the effects of homeopathic therapy on adult patients that were affected by atopic diseases and examined at the Homeopathic Clinic of Lucca between 1998 and 2017, and to assess the long-term development of atopic symptoms in subjects with a follow-up after at least five years from the first homeopathic consultation.

## **3. Materials and Methods**

### **3.1 Design**

This retrospective observational cohort study involved two groups: 1) all the adult patients that were suffering from atopic diseases and were examined at the Homeopathic Clinic of the Campo

di Marte Hospital of Lucca between 1998 and 2017, and 2) a subset of group 1 having a long-term follow up.

Inclusion criteria for the first group were adulthood, ongoing atopic diseases, and examination at the Homeopathic Clinic of Lucca. Inclusion criteria for the second group included a long-term follow up after  $\geq$  five years from the first homeopathic visit.

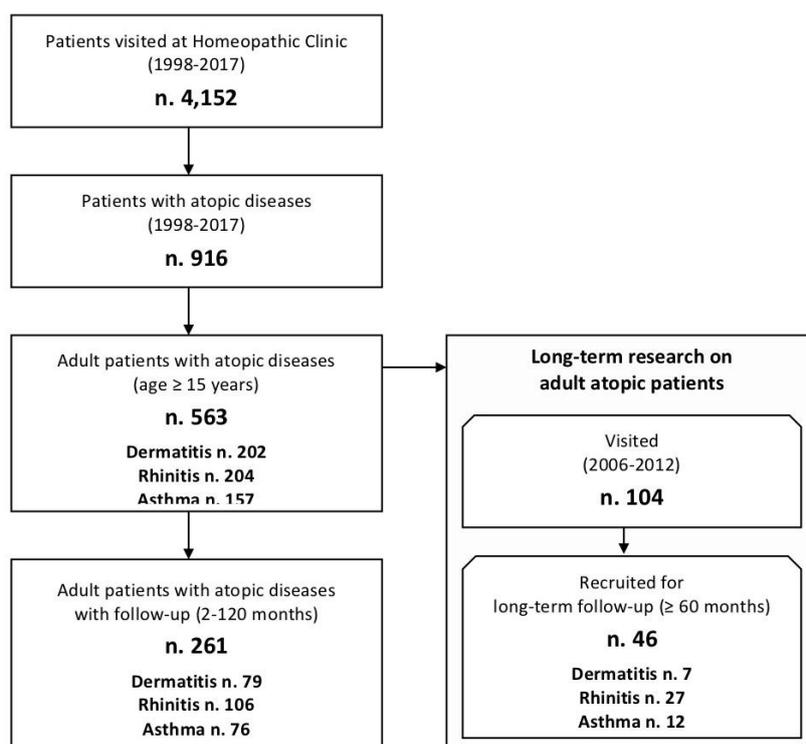
The personal and clinical data used for this research were stored and processed electronically in a database.

### 3.2 Setting

The homeopathic physicians of the clinic were medical practitioners that had attended a homeopathy school for at least three years and had over 25 years of experience in homeopathy. They were registered as experts of homeopathy with the Provincial Medical Council according to the Tuscan law no. 9/2007 [34] and the related Agreement Protocol of 2015 [35]. The average waiting time for appointments at the clinic was 1-2 months. A homeopathic examination lasted for about 30 min and consisted of a detailed interview with the patient, a physical examination, and the analysis of biological and radiological tests.

### 3.3 Patients

The patients that were examined at the Homeopathic Clinic from 1998 to 2017 were either referred by their general practitioner or were self-referred. There were no specific criteria for admission, and anyone who wished to be treated by homeopathy could request an appointment (Figure 1).



**Figure 1** Recruitment, follow-up, and long-term follow-up analysis of adult patients with atopic diseases in homeopathic treatment.

The major respiratory allergens affecting the patients included members of the family Gramineae, dust mites, and certain trees (birch, poplar, and olive). Although subjects with dermatitis did not usually report food allergies, they did show evidence of food intolerance, mainly to milk and its derivatives, nightshades (tomatoes), and eggs.

### **3.4 Diagnosis**

The diagnosis of AD was made using the criteria proposed by Williams and colleagues in 1994 [20]. A diagnosis of AD can be made if a patient has presented with itchy skin or the parents report having observed scratching or rubbing their child during the past twelve months.

Additional indicators for the diagnosis are the presence of three or more of the following criteria:

1. History of dermal involvement (bends of arms, wrists, knees, and ankles; creases around the neck, and eyes (and also the cheeks of children <10 years of age)
2. History of asthma or hay fever (or history of atopic disease in a first-degree relative if the child is <4 years of age)
3. History of dry skin over the past year
4. The onset of signs and symptoms in children <2 years of age (not valid for children <4 years)
5. Clear flexural dermatitis (or dermatitis involving the forehead, cheeks, or the outer aspect of limbs in children <4 years).

In addition, the diagnosis of AD depends on the exclusion of other conditions, such as allergic contact dermatitis, cutaneous lymphoma, seborrheic dermatitis, psoriasis, scabies, ichthyosis, and features of other primary diseases.

AR and asthma are traditionally subdivided into "persistent" and "intermittent". On the basis of the ARIA guidelines, the patients that showed allergic symptoms for less than four days per week or four weeks per year were classified in the intermittent group, while the rest were classified in the persistent group. Based on the severity of disease, the patients were classified into mild and moderate-severe groups [36].

### **3.5 Informed Consent**

All the patients involved in this study had to sign a privacy disclaimer and informed consent form for treatment and use of their data for future analysis. All the patients were assigned an individual identification number to anonymize, collect, and store the data in a database.

### **3.6 Therapy**

The therapeutic approach consisted of a medical visit in which the patient was examined from physical and mental perspectives in relation to existing conditions as well as clinical history. The goal was to identify a "constitutional" remedy (*simillimum*)—a remedy shown to produce symptoms (including general, particular, intellectual, and emotional symptoms) with the highest similarity to those of the patient, in a healthy individual (*prover*). The similarity could be at the "whole person" level, which takes into account the symptoms and signs of the disease, the patient's physical symptoms, as well as the personality, temperament, and genetic predispositions.

In acute conditions, this high level of individualization is not always required because 'similarity' must be found at a more specific local level. The consideration of the new or most recent symptoms for the selection of the remedy helped in matching the remedy to the current acute picture.

Homeopathic therapy generally consisted of the prescription of a single remedy in Quinquaginta Millesimal (Q or LM) potencies, starting with Q6 and continuing on a progressive scale of potencies, from Q6 to Q9, Q12, Q18, Q24, Q30, and sometimes Q60, generally for at least 60 days for each potency [37]. The remedies in centesimal and low potencies (6 to 30 CH) were used in acute cases. In addition, single doses of high centesimal potencies (200, M, or XM) were also prescribed after treatment with Q potencies.

During the first examination, patients who were suffering from chronic or recurrent diseases and were previously treated with conventional drugs were advised to slowly reduce and eventually discontinue them, following gradual improvement by homeopathic therapy. The patients with acute illnesses were advised on which homeopathic remedies should be taken, or were directed to conventional treatment in case of failure of the homeopathic remedies.

We generally used individualized homeopathic treatment, which was managed differently in acute versus chronic situations. In the case of AD, the topical use of basic moisturizing cream and Calendula cream was recommended.

### **3.7 Outcome Parameters**

In order to understand the response to homeopathic treatment, we considered adult patients with at least one follow-up visit. Follow-up examinations were carried out after a minimum of two months and after 6, 12, and 18 months, and possibly during the 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> year, and so on.

Information such as demographic data of the patients; clinical diagnoses according to ICD 10 coding; type, potency, and dosage of the prescribed remedy; prescription strategy; and the classification of the case as acute, chronic, or recurrent was recorded on paper and included in a database via the computerized clinical record 'Win-Computerized Homeopathic Investigation Program' (C.H.I.P.) [38].

The results were assessed in relation to the Impact on Daily Living (ORIDL) scale [39], formerly called the Glasgow Homeopathic Hospital Outcomes Scale or GHHOS [40]. The ORIDL reference values defined different degrees of improvement: 0 = no change/unsure; +1 = slight improvement, no effect on daily living; +2 = moderate improvement, affecting daily living; +3 = major improvement; +4 = cured/back to normal; -1 = slight deterioration, no effect on daily living; -2 = moderate deterioration, affecting daily living; -3 = major deterioration; -4 = disastrous deterioration. Our tables did not include the values of -2, -3, and -4 as no patient response achieved a score of lower than -1. The scores were assigned during the visit of each patient, during which the patient described his or her clinical situation, which was translated into a score by the doctor.

We utilized the following criteria to define the physical seriousness of atopic eczema: (1) *Clear*: Normal skin with no signs of active atopic eczema; (2) *Mild*: Patches of dry skin and sporadic itching (with presence or absence of small red areas); (3) *Moderate*: Dry skin areas with recurrent itching and redness (presence or absence of excoriation, localized thickening, and tightness of the

skin); and (4) *Severe*: Large areas of dry skin, constant itching, redness (with or without excoriation, widespread skin thickening, bleeding, oozing, cracking, and pigment alteration) [41].

The condition of patients having asthma and AR was classified as follows: (1) *mild intermittent* (episodic), (2) *mild persistent*, (3) *moderate persistent*, and (4) *severe persistent*, wherein the term 'intermittent' describes symptoms occurring for <4 days/week for <4 consecutive weeks a year, while 'persistent' describes symptoms occurring for >4 days/week for >4 consecutive weeks a year [42].

### **3.8 Long-Term Evaluation**

Of the 104 adult patients that were re-evaluated between 2006 and 2012, only 53 patients (50.9%) could be contacted, although only 46 (44.2%) provided useful information. Forty-six patients (44.2%) were unreachable because of relocation and/or telephone number change and 12 (11.5%) have not yet been found. Of the 46 patients that responded, 19 (41.3%) were male and 27 (58.7%) were female. The mean age was  $37.63 \pm 16.7$ , with 23 (50%) aged between 15 and 34 years, 19 (41.3%) between 35 and 64 years, and 4 (8.7%) over 64-years-old.

The patients were asked to return to the clinic for a follow-up evaluation. We gathered the data through a questionnaire survey conducted during the visit or telephonically and evaluated the principal atopic disease and the overall pattern of symptoms.

The aim of our questionnaire was to evaluate the development of the principal symptoms, the overall pattern at re-evaluation, and the development of any diseases that was absent during the first visit. It should be noted that some patients continued homeopathic treatment in private clinics in the interim period.

The average long-term follow-up ( $\geq$  five years) was 8.2 years (8.1 years for allergic dermatitis, 8.2 years for AR, and 8.2 years for asthma).

### **3.9 Statistical Analysis**

Well-trained personnel at the Homeopathic Clinic performed the entry, screening, encoding, and analysis of the data. The results were analyzed statistically using the Wilcoxon's test applied to matched-pair samples associated with a two-tailed significance test, using the statistical software package PASW (release 18.1 of SPSS, Statistical Package for Social Sciences).

## **4. Results**

A total of 4,152 patients were consecutively examined at the Homeopathic Clinic of Campo di Marte Hospital in Lucca from September 1998 to December 2017. Of these, 916 (22.1%) were patients with atopic diseases, of which 353 (38.5%) were pediatric patients ( $\leq$  14 years) and 563 (61.5%) were adults ( $\geq$  15 years).

Table 1 shows the characteristics of the patients with the atopic disease, as well as the two subgroups of children and adults. Among these patients, 295 (32.2%) suffered from asthma, 281 (30.7%) from AR, and 340 (37.1%) from AD. The adult subgroup of 563 patients (mean age 38.64 years) represented 61.5% of the atopic patients (compared to 353 or 38.5% children). In the adult subgroup, we observed asthma in 157 (27.9%) patients, AR in 204 (36.2%) patients, and AD in 202 (35.9%) patients.

Unlike the pediatric subgroup that consisted of 60.6% males, the adult subgroup was largely represented by females (63.9%). In addition, 84.5% of the adult patients had already used conventional treatment for the existing disease at the time of the first visit, and only 22.7% were previously treated with homeopathic remedies.

In adults, no significant correlation was observed between the age and the variables indicated in Table 1, except for patients with AR who were more numerous in the age group of 15-40 years (42.4%) than in the ≥ 41-year group (28.3%).

Each patient was examined 1 to 5 times and a total of 261 (46.4%) adult patients underwent at least one follow-up visit. There were no significant differences between patients with and without follow-up, in terms of demographic and clinical features.

**Table 1** Age-wise characteristics of all atopic patients (sex, previous use of conventional treatment, previous use of homeopathic treatment, atopic diseases, and follow up).

Number of patients		0-14 years		≥15 years		Total		Follow-up	
		n.	(%)	n.	(%)	n.	(%)	n.	(%)
		353	38.5	563	61.5	916	100	442	48.3
Sex									
	Male	214	60.6	203	36.1	417	45.5	205	46.4
	Female	139	39.4	360	63.9	499	54.5	237	53.6
Patients who had already used conventional treatment for the existing disease at the time of the first visit									
	Yes	282	79.9	476	84.5	758	82.8	371	83.9
Patients who had already used homeopathic treatment for the existing disease at the time of the first visit									
	Yes	72	20.1	136	24.2	208	22.7	107	24.2
Atopic diseases									
	Atopic dermatitis	138	39.1	202	35.9	340	37.1	143	32.4
	Allergic rhinitis	77	21.8	204	36.2	281	30.7	145	32.8
	Asthma	138	39.1	157	27.9	295	32.2	154	34.8

Table 2 shows the number and percentage of all adult patients with atopic diseases with follow-up, grouped by diseases and ORIDL score for severity of symptoms.

There were 261 (46.4%) adult patients with follow-up, of which 106 (40.6%) had AR, 79 (30.3%) had AD, and 76 (29.1%) had asthma. Fifty-four adult patients with asthma (71.1%), 74 with AR (69.8%), and 53 with AD (67.1%) showed a major improvement (ORIDL = +2 +3) or resolution (ORIDL = 4) of the disease. A total number of 181 patients (69.3%) showed major improvement or resolution.

**Table 2** Results of homeopathic treatment in 261 adult patients with atopic disorders at follow-up (1998–2017), as evaluated using ORIDL.

Adult atopic patients with follow-up n. 261/563 (46.4%)	ORIDL 0/-1 No changes or slight worsening (%)	ORIDL +1 Slight improvement (%)	ORIDL +2 Moderate improvement (%)	ORIDL +3 Major improvement (%)	ORIDL +4 Resolution (%)	ORIDL +2+3+4 (%)
Asthma (n. 76)	8 (10.5)	14 (18.4)	16 (21.1)	25 (32.9)	13 (17.1)	54 (71.1)
Allergic rhinitis (n. 106)	8 (7.5)	24 (22.6)	25 (23.6)	30 (28.3)	19 (17.9)	74 (69.8)
Atopic dermatitis (n. 79)	11 (13.9)	15 (19)	13 (16.5)	25 (31.6)	15 (19)	53 (67.1)
Total (n. 261)	27 (10.4)	53 (20.3)	54 (20.7)	80 (30.7)	47 (18)	181 (69.3)

Table 3 summarizes the long-term development of symptoms in 46 followed-up adult patients with AD, AR, and asthma. In cases where AD was the main disease, 7/7 (100%) patients showed complete remission. Out of 27 patients with AR as the main disease, 16 (59.2%) presented complete remission of symptoms, while seven (25%) exhibited mild/intermittent (episodic) symptoms, three showed moderate/persistent symptoms, and only one (3.7%) continued to show severe symptoms. Out of 12 patients with asthma, nine (75%) exhibited complete remission of symptoms, two (16.7%) presented mild/intermittent (episodic) symptoms, and only one (8.3%) maintained moderate/persistent symptoms.

Of the 46 patients, 35 (76.1%) had exclusively used homeopathy to treat their atopic symptoms over time, whereas 11 (23.9%) had used and continued to use conventional treatment when needed, for example, antihistamines during acute seasonal rhinitis. Out of the 35 patients that exclusively used homeopathy, 27 (77.1%) believed they had completely resolved the atopic condition, compared to only five of the 11 (45.5%) that used conventional treatment.

Table 4 presents the patients with different atopic diseases and their progression at long-term follow-up. Out of 46 patients, 24 (53.3%) had other atopic conditions apart from their primary complaint: 37% had both asthma and AR, 2.2% had asthma and AD, 10.9% had AR and AD, and 2.2% had asthma, AR, and AD. Twenty-five out of the 46 patients (54.3%) exhibited complete remission of all associated diseases.

The most frequently and efficaciously prescribed remedies were *Sulfur* and *Silicea* for AD, *Pulsatilla pratensis* and *Arsenicum iodatum* for AR, and *Natrum sulfuricum* and *Arsenicum album* for asthma.

**Table 3** Distribution of adult atopic patients by level of severity at first visit and at long-term follow-up (n. 46).

Severity of main symptom (first visit)	Severity of main symptom (at the long-term follow-up visit)					
	Mild intermittent/ sporadic	Mild persistent	Moderate persistent	Severe persistent	Absence/remission	
					Under homeo treatment	No more treatment
<i>Asthma</i> (n. 12)	2 (16.7%)	0	1 (8.3%)	0	0	9 (75%)
					9 (75%)	
Mild intermittent (episodic)/ sporadic (n. 0)	0	0	0	0	0	0
Mild persistent (n. 2)	0	0	0	0	0	2
Moderate persistent (n. 6)	1	0	1	0	0	4
Severe persistent (n. 4)	1	0	0	0	0	3
<i>Allergic rhinitis</i> (n. 27)	7 (25%)	0	3 (11.1%)	1 (3.7%)	9 (33.3%)	7 (25.9%)
					16 (59.2%)	
Mild intermittent (episodic)/ sporadic (n. 0)	0	0	0	0	0	0
Mild persistent (n. 6)	3	0	0	0	2	1
Moderate persistent (n. 10)	3	0	3	0	1	3
Severe persistent (n. 11)	1	0	0	1	6	3
<i>Dermatitis</i> (n. 7)	0	0	0	0	2 (28.6%)	5 (71.4%)
					7 (100%)	
Mild intermittent (episodic)/ sporadic (n. 0)	0	0	0	0	0	0
Mild persistent (n. 3)	0	0	0	0	0	3
Moderate persistent (n. 2)	0	0	0	0	1	1
Severe persistent (n. 2)	0	0	0	0	1	1
Total (n. 46)	9 (19.6%)	0	4 (8.7%)	1 (2.2%)	11 (23.9%)	21 (45.6%)
					33 (69.5%)	

**Table 4** Distribution and progression of atopic diseases in adult patients at first visit and at long-term follow-up (n = 46).

Overall symptoms (ante) n. pts	Overall symptoms (long-term)								
	Asthma	Rhinitis	Dermatitis	Asthma and rhinitis	Asthma and dermatitis	Rhinitis and dermatitis	Asthma, rhinitis, and dermatitis	Remission	
	n. pts	n. pts	n. pts	n. pts	n. pts	n. pts	n. pts	n. pts	%
Asthma (n. 7)	2	0	0	0	0	0	0	5	71.4
Rhinitis (n. 10)	0	4	0	0	0	0	0	6	60.0
Dermatitis (n. 5)	0	1	0	0	0	0	0	4	80.0
Asthma and rhinitis (n. 17)	0	3	1	2	0	2	0	9	52.9
Asthma and dermatitis (n. 1)	0	0	1	0	0	0	0	0	0.0
Rhinitis and dermatitis (n. 5)	0	4	0	0	0	0	0	1	20.0
Asthma, rhinitis, and dermatitis (n. 1)	0	1	0	0	0	0	0	0	0.0
Total (n. 46)	2	13	2	2	0	2	0	25	54.3

## 5. Discussion

As this was a retrospective study reporting only clinical activity, we could not compare the results with a control group. Thus, it was possible that the results were influenced by the natural course of atopic disease, although it should be noted that adults do not commonly show spontaneous cure, and 84.5% of our patients (see Table 1) underwent a lengthy period of conventional treatment without any success.

In a 2006 study on 79 adults (mean age 57 years) that received only conventional treatment, 68% reported an ongoing incidence of AD, 53% reported eczema, and 12% complained of severe AD during the follow up after three years [43]. These results suggest that when atopic diseases persist during adulthood, it will usually continue for many years. Although complete remission is possible in adult asthma, remission rates are low and limited to milder cases. Longitudinal studies have indicated that severe asthma has a poorer prognosis and is associated with an increased likelihood of permanent lung function impairment, hospitalization, and mortality [44].

In a study performed at 35 Italian healthcare centers, only 304 patients out of 2,760 (12.2%) with allergic rhinitis that had responded to questionnaires said that the response to conventional treatment was excellent, while 1027 responded 'good' (41.3%), 775 'fair' (31.2%), 359 'poor' (14.5%), and 19 said 'very bad' (0.8%). In this study, 340 (13.7%) patients were highly satisfied with the treatment, 1425 were satisfied (57.3%), 703 were not satisfied (28.3%), and 18 were

extremely dissatisfied (0.7%). The extent of dissatisfaction was significantly higher in patients with moderate-to-severe AR, compared to patients with mild AR ( $p < 0.0001$ ) [45].

The efficacy of homeopathy needs to be demonstrated with randomized controlled trials to confirm the results observed in this study.

Social changes over the past few years have made it more difficult to locate patients for long-term follow up after some time. The exclusive use of mobile phones in several families and the lack of mobile phone directories in Italy made it difficult to reach some patients.

The present study evaluated patients via a face-to-face or telephonic follow-up after approximately 7–8 years from the start of homeopathic treatment, in order to understand whether any improvements from homeopathic treatment were sustainable in the long term.

In previous studies [31,32] we analyzed the outcomes of pediatric patients with AD, who were treated at the same clinic. The first study focused exclusively on AD and was followed by another study on all the atopic diseases: AD, AR, and asthma. The second study revealed that 75.8% of the examined children (67.1% with asthma as the primary disease, 84.2% with rhinitis, and 84.2% with dermatitis) presented moderate to major improvement. At re-evaluation after 5–10 years, complete remission of the atopic symptoms was observed in 70.1% of the children: 84.2% with AD, 48.1% with AR, and 71.4% with asthma. Forty percent of the children with two or three concomitant atopic diseases at first examination had completely recovered.

Based on these positive outcomes, we investigated whether similar results could also be obtained in adults with atopic diseases, or whether the positive response of pediatric patients was due to factors such as young age and possibly a healthier diet or reduced pharmacological intoxication.

The findings of this study confirm that the homeopathic treatment of atopic diseases is effective in adult patients as well. The rates of success are similar, although slightly lower than those observed in pediatric patients. In short-term evaluation, major improvement or resolution was obtained in 69.3% of the adults compared to 75.8% of the children.

More specifically, we observed that the results of all atopic diseases are not the same in adults and children. Major improvement (ORIDL+2+3+4) was observed in 71.1% of the adults vs. 67.1% of children with asthma; 69.8% of the adults vs. 84.2% of children with AR; and 67.1% of the adults vs. 84.2% of children with AD. Therefore, homeopathic treatment of asthma seems to be more effective in adults than in children, while children with AR and AD seem to respond better to homeopathic treatment.

In addition, among patients with long-term follow up, those who chose exclusive homeopathic treatment appeared to show better results, with the resolution of atopic symptoms in 77.1% of the cases (versus 45.5% in patients that chose conventional treatment). This can be explained by the fact that patients that obtain good results from homeopathic treatment tend to exclusively utilize homeopathy, whereas patients that obtain inferior results with homeopathy tend to also use conventional treatment.

In the long-term assessment of patients that were affected by concomitant atopic diseases, 40% of the pediatric patients (30 cases) showed complete remission of all associated diseases, compared to 54.3% of the adult patients (46 cases).

Long-term follow up in adults demonstrated that homeopathic treatment reduced the severity of symptoms even when AD, AR, and asthma persisted over time, which is in contrast to what generally occurs with conventional treatment.

These results, if confirmed with randomized controlled trials in a larger sample of patients both in the acute phase (for example in the case of seasonal pollen allergies) and in the chronic state, could yield important practical consequences. An integrated treatment model for atopic diseases could be developed with the systematic use of homeopathic treatment preceding conventional medicines (antihistamines, cortisones, etc.), limiting their use to only the more severe and acute cases. Furthermore, homeopathic treatment may also be paired with conventional desensitization therapy.

## **6. Conclusions**

The results of our study demonstrate that homeopathy has positive therapeutic effects not only in children suffering from atopic diseases, as shown in previous studies but also in adults.

According to these preliminary data, adult patients treated with homeopathy appeared to show a more significant reduction in the severity of atopic diseases and even a complete remission at long-term follow-up, compared to results of conventional treatment that are reported in the literature.

## **Acknowledgments**

We thank Dr. Laura Cignoni for her English translation and Dr. Mariella Di Stefano for contributing to the bibliographic research and the revision of the text.

## **Author Contributions**

Research conducted by the authors. Elio Rossi carried out the clinical activities and conceived, designed, and participated in the research and wrote the article. Marco Picchi participated in the data analysis, the statistical analysis, and writing the article. Marialessandra Panozzo participated in the writing and discussion of the article. Linda Nurra took part in the data analysis and writing of the article.

## **Competing Interests**

There are no conflicts of interest.

## **Funding**

This study was supported by the public health system of the Region of Tuscany (Italy).

## **References**

1. Vocabolario Treccani della lingua italiana. 2019 March. Available from: [http://www.treccani.it/Portale/elements/categoriesItems.jsp?pathFile=/sites/default/BancaDati/Vocabolario\\_online/A/VIT\\_III\\_A\\_009843.xml](http://www.treccani.it/Portale/elements/categoriesItems.jsp?pathFile=/sites/default/BancaDati/Vocabolario_online/A/VIT_III_A_009843.xml).
2. Spergel JM. From atopic dermatitis to asthma: The atopic march. *Ann Allergy Asthma Immunol.* 2010; 105: 99-106.
3. Pawankar R, Canonica GW, Holgate ST, Lockey RF, Blaiss M. *The WAO White Book on Allergy.* 2013.

4. Bousquet J, Khaltaev N, Cruz AA, Denburg J, Fokkens WJ, Togias A, et al. Allergic rhinitis and its impact on asthma (ARIA) 2008 update (in collaboration with the World Health Organization, GA(2)LEN and Allergen). *Allergy*. 2008; 63: 8-160.
5. Bousquet J, Schünemann HJ, Samolinski B, Demoly P, Baena-Cagnani CE, Bachert C, et al. Allergic Rhinitis and its Impact on Asthma (ARIA): Achievements in 10 years and future needs. *J Allergy Clin Immunol*. 2012; 130: 1049-1062.
6. National Center for Complementary and Integrative Health (NCCIH). Complementary, alternative, or integrative health: What's in a name? July 2018. Available from: <https://nccih.nih.gov/health/integrative-health>.
7. HRI Homeopathy around the world. March 2019. Available from: <https://www.hri-research.org/resources/essentialevidence/use-of-homeopathy-across-the-world>.
8. Eurispes. 29° Rapporto Italia 2017. March 2019. Available from: <https://eurispes.eu/news/eurispes-rapporto-italia-2017-comunicato-stampa>.
9. Knudsen TB, Thomsen SF, Nolte H, Backer V. A population based clinical study of allergic and non-allergic asthma. *J Asthma*. 2009; 46: 914.
10. Land MH, Wang J. Complementary and alternative medicine use among allergy practices: Results of a nationwide survey of allergists. *J Allergy Clin Immunol Pract*. 2018; 6: 95-98.
11. Kapoor S, Bielory L. Allergic rhinoconjunctivitis: Complementary treatments for the 21st century. *Curr Allergy Asthma Rep*. 2009; 9: 121.
12. Reilly DT, Taylor MA, McSharry C, Aitchinson T. Is homoeopatha placebo response? Controlled trial of homoeopathic potency, with pollen in hayfever as model. *Lancet*. 1986; 2: 881-886.
13. Ludtke R, Wiesenauer M. A meta-analysis of homeopathic treatment of pollinosis with *Galphimia glauca*. *Wien Med Wochenschr*. 1997; 147: 323-327.
14. Kim LS, Riedlinger JE, Baldwin CM, Hilli L, Khalsa SV, Messer SA, et al. Treatment of seasonal allergic rhinitis using homeopathic preparation of common allergens in the southwest region of the US: A randomized, controlled clinical trial. *Ann Pharmacother*. 2005; 39: 617-624.
15. Goossens M, Laekeman G, Aertgeerts B, Buntinx F. Evaluation of the quality of life after individualized homeopathic treatment for seasonal allergic rhinitis. A prospective, open, non-comparative study. *Homeopathy*. 2009; 98: 11-16.
16. Campbell JH, Taylor MA, Beattie N, McSharry C, Aitchison T, Carter R, et al. Is homoeopathy a placebo response? A controlled trial of homoeopathic immunotherapy in atopic asthma. *Am Rev Resp Dis*. 1990; 141: A24.
17. Castellsagu API. Evolution of 26 cases of bronchial asthma with homoeopathic treatment. *Br Homeopath J*. 1992; 81: 173-175.
18. McCarney RW1, Linde K, Lasserson TJ. Homeopathy for chronic asthma. *Cochrane Database Syst Rev*. 2004; (1): CD000353.
19. Colin P. Homeopathy and respiratory allergies: A series of 147 cases. *Homeopathy*. 2006; 95: 68-72.
20. Garcia C. Homeopathy as an alternative for asthma treatment. *Int J High Dilution Res*. 2011; 10: 201-202.
21. Itamura R, Hosoya R. Homeopathic treatment of Japanese patients with intractable atopic dermatitis. *Homeopathy*. 2003; 92: 108-114.
22. Mohan GR. Efficacy of homeopathy in childhood asthmas. *Homeopathic Links*. 2007; 20: 104-107.

23. Witt CM, Brinkhaus B, Reinhold T, Roll S, Wegscheider K, Wruck K, et al. A comparative observational study to assess the effectiveness and costs of individualised homeopathy compared to conventional treatment in children with atopic dermatitis. An example for whole system research. *Eur J Integr Med.* 2008; 1: 22.
24. Adler U, Adler M. Homeopathic Q-potencies for atopic dermatitis. *Eur J Integr Med.* 2010; 2: 175-176.
25. Shafei HF, AbdelDayem SM, Mohamed NH. Individualized homeopathy in a group of Egyptian asthmatic children. *Homeopathy.* 2012; 101: 224-230.
26. Eizayaga JE, Eizayaga JI. Prospective observational study of 42 patients with atopic dermatitis treated with homeopathic medicines. *Homeopathy.* 2012; 101: 21-27.
27. Nwabudike LC. Atopic dermatitis and homeopathy. *Our Dermatology Online.* 2012; 3: 217-220.
28. Rossi E, Di Stefano M, Picchi M, Panozzo MA, Noberasco C, Nurra L, et al. Integration of homeopathy and complementary medicine in the Italian and Region of Tuscany public health system, and the experience of the Homeopathic Clinic of the Lucca Hospital. *Homeopathy.* 2018; 107: 90-98.
29. Region of Tuscany. Action Plan on Non-Conventional Medicine (MnC). Renewal of MnC Regional Commission. Identification of Regional Reference Center. Allocation of PSR funding to support MnC. Azione di Piano sulle Medicine non Convenzionali (MnC); 2002 September 12. Tuscany. Banca dati Atti Regionali.
30. Azienda USL Toscana Nord Ovest. Delibera GRT N. 1224/2016: Recepimento linee di indirizzo ed individuazione centro di coordinamento aziendale di MC. Deliberazione Del Direttore Generale N. 617 del; 2017 June 21; Toscana.
31. Rossi E, Bartoli P, Bianchi A, Da Fre M. Homeopathy in paediatric atopic diseases: Long-term results in children with atopic dermatitis. *Homeopathy.* 2012; 101: 13-20.
32. Rossi E, Picchi M, Bartoli P, Panozzo MA, Cervino C, Nurra L. Homeopathic therapy in pediatric atopic diseases: Short and long-term results. *Homeopathy.* 2016; 105: 217-224.
33. Gillman A, Douglass JA. Asthma in the elderly. *Asia Pac Allergy.* 2012; 2: 101-108.
34. Tuscany Region. Regional Law of Tuscany no. 9/2007. 2014.
35. Conferenza permanente per i rapporti tra lo Stato, le Regioni e le Province Autonome di Trento e Bolzano. National Agreement among the State and the Regions and Autonomous Provinces on the rules for education and practice in complementary medicine by medical doctors, dentists, pharmacists and veterinarians. 3<sup>rd</sup>. 2013.
36. Williams HC, Burney PGJ, Pembroke AC, Hay RJ. The UK working party's diagnostic criteria for atopic dermatitis. III. independent hospital validation. *Br J Dermatol.* 1994; 131: 406-416.
37. De Schepper L. LM potencies: One of the hidden treasures of the Sixth edition of the Organon. *Br Hom J.* 1999; 88: 128-134.
38. Rezzani CM. WinChip: Computerized homeopathic investigation program: A data collection tool to help the doctor in daily practice and a real instrument to prove and improve homeopathy. Improving the success of homeopathy 2. developing and demonstrating effectiveness. London; 1999. p. 32.
39. Reilly D, Stewart W, Mercer SW, Bikker AP, Harrison T. Outcome related to impact on daily living: Preliminary validation of the ORIDL instrument. *BMC Health Serv Res.* 2007; 7: 139.
40. Reilly D, Taylor M. The evidence profile. *Dev Integr Med Complement Ther Med.* 1993; 1: 1-50.

41. Lewis-Jones S, Mugglestone MA. Management of atopic eczema in children aged up to 12 years: Summary of NICE guidance. *BMJ*. 2007; 335: 1263e1264.
42. Jenkinson SG, Peters JI. Pearls from the national institutes of health asthma guidelines. *PCCU Lesson*. 2019; 13: 2.
43. Sandström Falk MH, Faergemann J. Atopic dermatitis in adults: Does it disappear with age? *Acta Derm Venereol*. 2006; 86: 135-139.
44. Lange P. Prognosis of adult asthma. *Monaldi Arch Chest Dis*. 1999; 54: 350-352.
45. Frati F, Dell'Albani I, Passalacqua G, Bonini S, Rossi O, Senna G, et al. A survey of clinical features of allergic rhinitis in adults. *Med Sci Monit*. 2014; 20: 2151-2156.



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