

## EXTRA MURAL RESEARCH

### Role of homoeopathic treatment in scabies infection in adivasi children attending ashram shalas (resident schools)

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Scabies is a frequent skin disease suffered by of the tribal (adivasi) children attending residential schools. The humid living conditions, crowding, poor personal hygiene, and inadequate nutritional status of the children poses formidable challenges in the management of this disorder. Prolonged allopathic treatment often fails to eradicate the infection in this unfortunate population. Infection and other complications are common.

A prospective, randomized controlled, single blind study was carried out during the period November 2004 to December 2007 to explore the efficacy of homoeopathic treatment in tackling scabies infection and controlling the spread.

300 cases were enrolled and divided into three treatment groups i.e. constitutional group, acute / sector group and placebo group. Scabies infection was diagnosed by the dermatologist and graded as per the severity of infection and children were observed for 2 years. All treatment groups were subjected to standard hygienic measures during the course of the study.

Results were analyzed at the end of each year. 90% of the children from constitutional group improved at the end of the 1<sup>st</sup> year whereas 27% from the acute and 4% from the placebo group improved. At the end of the second year, the rate of improvement of the constitutional group rose to 98% whereas 48% from the acute and 12% from placebo group improved. The prevalence of scabies in the school dropped from 52% to 17% at a time when the prevalence of scabies in the residential schools in the area did not show any reduction.

The results demonstrated statistically significant improvement in the constitutional group as compared to the response in the acute and the placebo groups. It is concluded that the constitutional approach holds great promise in the cure and control of treatment of infective skin conditions in a closed group. The results also highlight the efficacy of homoeopathic medicines at a community level thus opening up the vast untapped area of community medicine to homoeopathic interventions.

**Keywords:** scabies; constitutional treatment; randomized controlled study; homoeopathy; community medicine

### Introduction

Scabies is an exceedingly common contagious disease caused by the infestation of a mite- *Acarus* or *Sarcoptes Scabiei*.<sup>1</sup> It is also known as 'seven year itch'. It was very common during the First and the Second World Wars but gradually has become rare in most western countries. There has been a hypothesis that scabies epidemics occur in a 30-year cycle. The last cycle started in 1960 and ended in 1990.<sup>2</sup> In India, the incidence in any Dermatology outpatient clinic varies from 10 to 30% of all cases with a seasonal prevalence and higher incidence in the winter months.<sup>2</sup>

It is extremely common in children and equally affects both sexes. The incubation period is one month. Once sensitization occurs, the time taken for the subsequent infection is less.<sup>1</sup> It spreads through contact with infected individuals or infected clothes, towels, bed linen, etc. It was observed that prolonged contact especially during sleep is responsible for the spreading of infection.<sup>2</sup>

The most common symptom of scabies is itching especially at night. It is more during warm and humid climate.<sup>2</sup> Initially, the itching is localized but gradually becomes generalized. The common sites of infection are webs of fingers, flexor aspect of wrist, elbow, anterior axillary fold, upper thigh portion, buttocks and genitalia. These sites usually get

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secondarily infected. Scalp, face, palms and soles rarely get the secondary infection.

The diagnosis is established mainly from the history and examination findings. Presence of a burrow with a characteristic pattern of the lesions, intense itching and history of similar complaints in the past or in the family members are the cardinal features of scabies.

From the homoeopathic angle, this state is seen as a chronic and deep affliction needing the use of deep-acting constitutional forces to correct the underlying susceptibility thereby improving the immunity to deal with the chronic infection. The strategy for tackling the illness has been to use the Constitutional remedy. Occasionally there is a need of acute remedies to take care of severe super-added skin infections.

### Aim

To explore and assess the role of homoeopathic constitutional treatment in treating cases of Scabies infection.

### Objectives

1. To assess the efficacy of homoeopathic treatment in the prevention of recurrence of the infection.
2. To evolve a general strategy in managing this common paediatric skin infection.

### Materials and Methods

Randomized, placebo controlled, single blind study was carried out during the period Nov. 2004 to Dec 2007, at the Dr. M. L. Dhawale Memorial Trust's Community Health Centre, Bhopoli, Taluka Vikramgarh, Dist. Thane. Dagadipada and Bhopoli residential school of Vikramgrah taluka, Thane district were selected for conducting the study. 315 children residing in the tribal schools between the age groups 6 to 15 years having scabies were enrolled for the study. The severity of the disease differs from time to time. Hence, to quantify the severity in a uniform way it was graded as shown in the Table 1. This was done with the help of dermatologist. There is no such ready classification available in the textbooks of dermatology.

The children were randomly divided into 3 groups. The first group received constitutional treatment, the second group received acute / sector treatment and the third group which acted as a control received placebo. Common hygienic measures were maintained for all the three groups. The baseline observations were taken after one month of enrollment. In this first month, the hygienic measures were standardized across all the groups. They were observed over a 2 year period. Children were observed for two years with the treatment. In the third year the observations were recorded without any treatment being administered to any of the groups. However, the hygienic measures were continued even in this period.

**Table 1**-Clinical criteria for grading of scabies

Clinical criteria	Grade 0 No Scabies	Grade 1 Mild	Grade 2 Moderate	Grade 3 Severe
No. of sites	0	1 to 3	4 to 7	8 to 13
Itching	Absent	Mild	Moderate	Severe
Eruptions	Absent	Less than 5	5 to 15	More than 15

Follow up observations were done at weekly intervals. Constitutional medicines were prescribed based on the totality of symptoms. For prescribing acute / sector medicines, only the characteristic features of local signs and symptoms were considered. To begin with, a single dose of constitutional medicine was prescribed and the patient was observed until improvement ceased. Then as per the state of susceptibility, the next action was taken. To maintain the uniformity of doses with other groups, placebo pills were given 4 times a day on a regular basis. In case of acute medicines, the indicated medicine was given 4

times a day till the symptoms disappeared after which placebo pills were given four times a day. Placebo was given 4 times a day in the Placebo group. The medicines used in the project were manufactured by M/S Willmar Schwabe India Pvt. Ltd. and obtained directly from the manufacturer.

Standard hygienic measures were followed for all the three groups. Teachers, community health volunteers, and class monitors recruited from the senior classes, specially trained and motivated, monitored this on a regular basis.

### Outcome assessment

The results were assessed by considering changes in the grade of the infection. Concomitantly, changes in other associated complaints were also noted. For assessing the recurrence, yearly follow up was considered. Peak seasons in which infection exacerbates like rainy and winter were taken for comparison.

### Results

Out of the 315 registered children, 300 followed hygiene regularly. These have been taken up for analysis.

Efforts were made to understand the state of susceptibility of the children. This was categorized as low, moderate or high based on the following parameters:

1. Predisposition – Family history of scabies
2. Qualified Mental Symptoms – Present / Absent
3. Character of expressions – Asymptomatic / Symptomatic, if symptomatic then characteristic / common symptoms

4. Pace of the disease– Gradual / Rapid
5. Progress of the disease – Scabies always present / Seasonal
6. Previous and current medications and its response.
7. Other associated diseases
8. General vitality: Examination findings.

On the basis of the above the following three categories were formulated:

*High Susceptibility:* Capacity of the individual to throw up a good number of characteristics which were readily expressed and perceived by the trained observer. .

*Moderate susceptibility:* Individual throws up only a moderate number of characteristics and the expressions are mainly the common symptoms of the disease.

*Low Susceptibility:* Poor capacity to throw up characteristics. Even common symptoms like itching are not expressed.

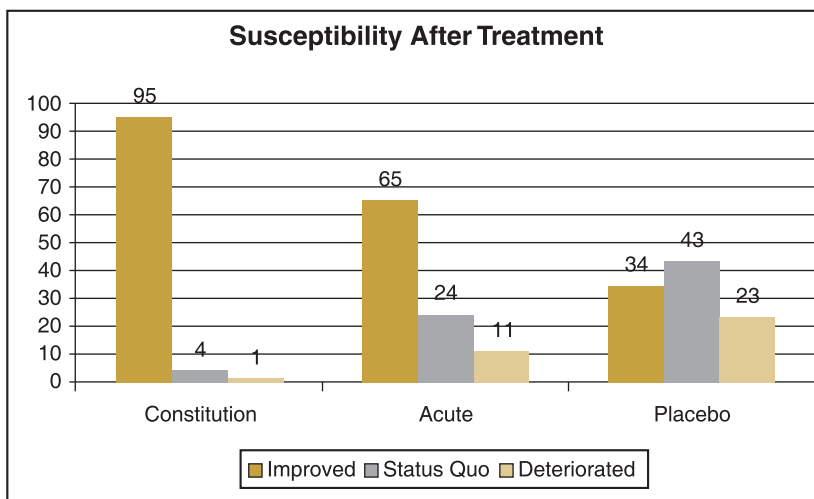
**Table 2-**State of susceptibility across the groups

Susceptibility	Constitutional	Acute	Placebo	Total
Low	11	08	08	27
Moderate	81	84	84	249
High	08	08	08	24
Total	100	100	100	300

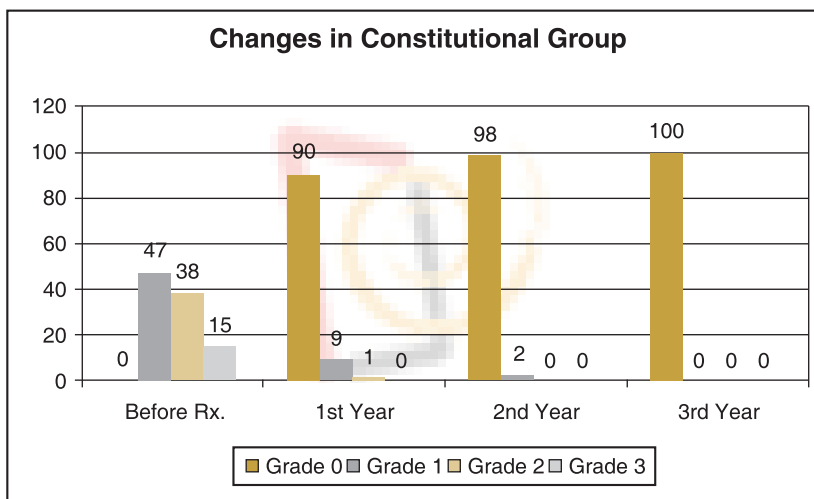
Thus by understanding the susceptibility one understands how the person reacts to different stimuli. The characteristics expression and pathology guide in

this. Various aspects of posology like potency, dose repetition are dependent on the level of susceptibility.

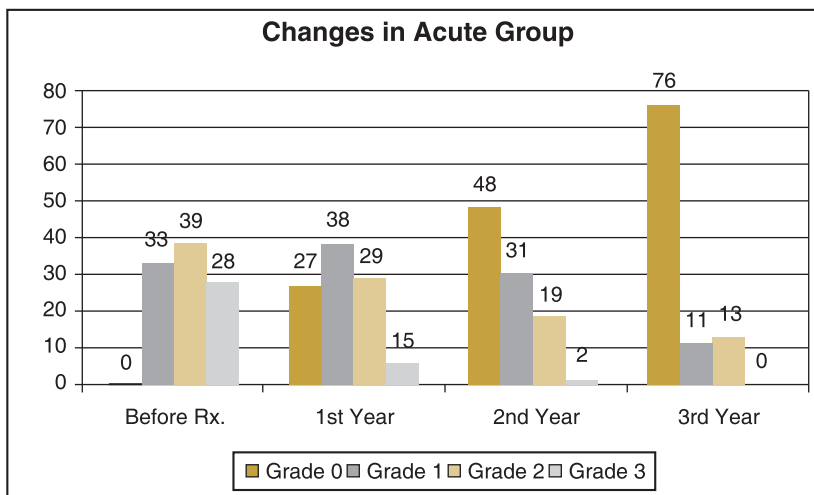
**Graph 1-**Change in the susceptibility across the groups at the end of 2 years



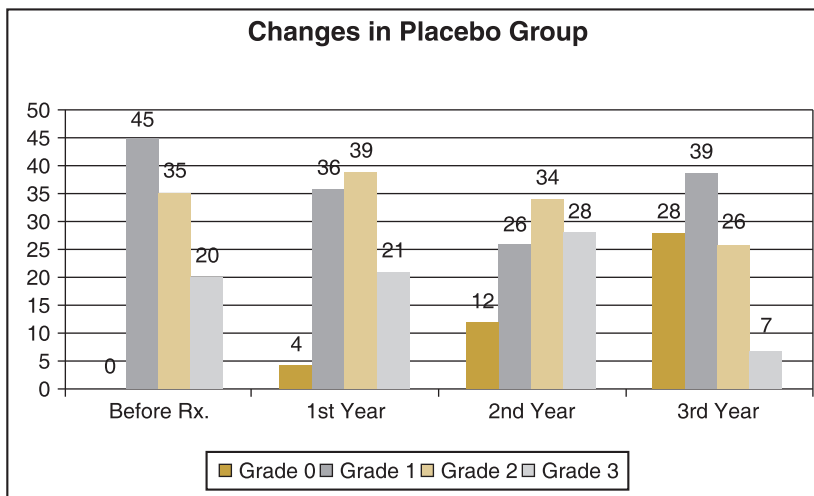
**Graph 2-**Grade wise changes in constitutional group after treatment



**Graph 3-**Grade wise changes in acute group after treatment

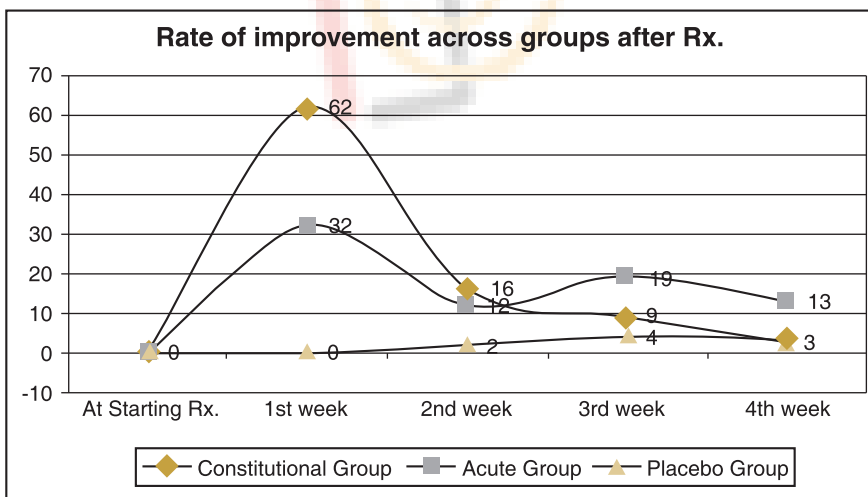


**Graph 4-Grade wise changes in placebo group after treatment**



Graphs 2, 3 & 4 clearly show that in the constitutional group, 90% of the children improved within one year whereas 27% cases in the acute group and 4% in the placebo group improved.

**Graph 5-Rate of improvement across groups after the treatment**



Graph 5 shows the rate of commencement of improvement across the groups. In the constitutional group, the response was immediate i.e. from the 1<sup>st</sup> week itself. 62 children had shown improvement by the end of the 1<sup>st</sup> week whereas 16% of cases started improvement from the 2<sup>nd</sup> week.

In the acute group, 32% showed changes within the first week. Then from the subsequent weeks, rate of improvement was not linear. Placebo group showed no change in the first week.

**Table 3-Constitutional & Acute remedies prescribed**

Constitutional Remedies	Number of Children	Acute Remedies	Number of Children
Baryta carb.	03	Arsenic album	12
Calc. carb.	33	Calc. sulph.	08
Calc. phos	08	Graphites	09
Calc. silicate	04	Hepar sulph	25
Kali. carb.	03	Merc. sol.	42
Lycopodium	04	Pulsatilla	04
Nat. mur.	14		
Nat. silicata	03		
Sepia	02		
Silicea	23		
Sulphur	03		
Total	100	Total	100

## Discussion

### Efficacy of homoeopathic treatment

• The efficacy of Homoeopathic treatment can be established by comparing the results of the different groups. The response is dependent on the state of susceptibility and the changes brought about in it through our medicines. The results are compared in terms of

- Results at the end i.e. presence or absence of scabies
- Rate of response to treatment
- Recurrence of scabies

### Results in all the three groups

This study shows the efficacy of homoeopathic medicines in the treatment of scabies infection. Constitutional medicines are prescribed based on the totality comprising of physical as well as mental symptoms. Scabies, being a chronic disease, has responded promptly to the constitutional approach. 90% cases improved at the end of one year of treatment.

In some cases where the susceptibility is on the lower side the characteristic constitutional symptoms are not available. On the other hand, sometimes the case presents with characteristics symptoms at the

sector level. In such cases, sector / acute remedies are indicated. This study also explored the role of acute remedies in scabies treatment. 27% cases which were treated through this approach were free of scabies at the end of one year. Detailed analysis had shown that where there was greater similarity, the response was faster. Each remedy has a particular site affinity. This is discussed in the later part.

Hygiene is the most important part of the treatment of the scabies. Placebo controls helped to understand its importance. It also helped to verify the results of homoeopathic treatment. At the end of the one year, only 4% cases have improved in the placebo group pointing out to the statistically significant results.

### Rate of response to the treatment

Efficacy of any treatment strategy is also dependent on the rate of response. In a contagious infection like scabies, a gradual response is expected when the overall hygienic condition improves. If the response is faster, it will not only lessen the suffering of that case but will also reduce the risks of cross infection. The improvement in the constitutional group is immediate. 62 % cases improved during the 1<sup>st</sup> week itself. In other words, we can say that when the similimum is prescribed, improvement should start within 2 weeks. This will help in judging the remedy response. The Acute group has shown a mixed pattern of response in the rate of improvement. It also responded faster when



the scabies were present in the same area where the remedy has affinity to that location. It is important to note that none of the children from the Placebo group improved in the first week.

### Statistical analysis

Chi-Square test was applied to assess the statistical significance of the results. The difference between Constitutional group Vs Placebo group was  $p < 0.01$  and that between the Constitutional group Vs. Acute group was  $p < 0.01$ . The results of both these groups are statistically significant. However, the difference of the result between Acute group Vs. Placebo group was not statistically significant.

### Recurrence of scabies

Scabies is known to have seasonal fluctuations. It becomes dormant during unfavorable circumstances. Therefore, results cannot be confirmed until cases are observed over a sufficiently prolonged period. The results of the second year show the efficacy more clearly. There is improvement in all the three groups. More cases as compared to first year are becoming free of scabies albeit at different rates across groups. At the same time the severity of the infection is reducing across the groups. In the constitutional group only 2% children showed a recurrence and that too of a mild variety. In the Acute group, 48% children improved whereas 12% children were cured in Placebo group.

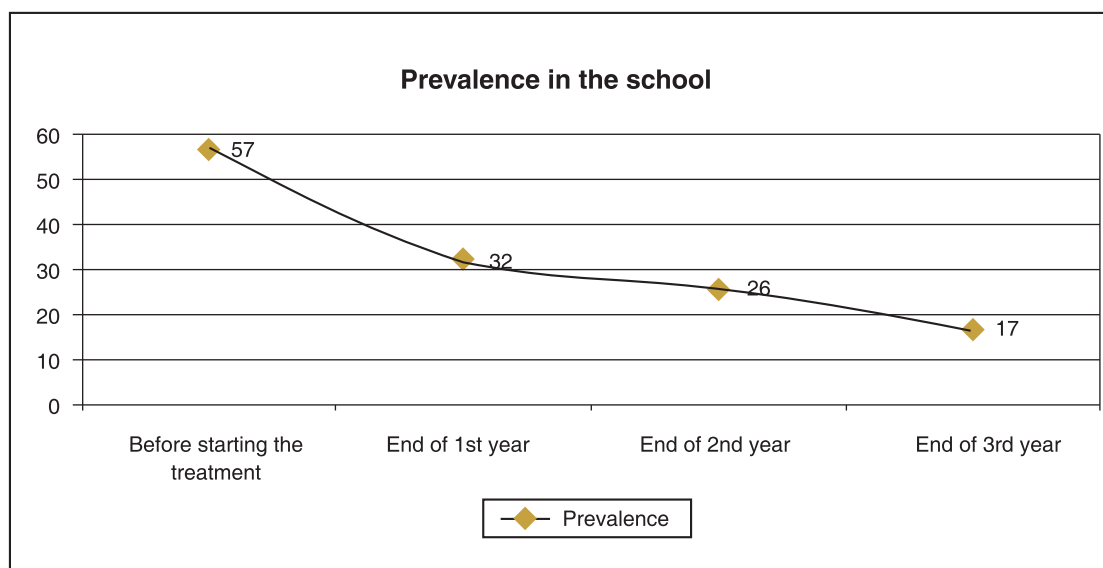
Observations carried out at the end of the third year were without any treatment to any of the groups. None of the children had scabies in the third year from the constitutional group whereas 24% children had recurrence from the acute group. Only 12% children were free of scabies in the third year in the Placebo group. The severity of infection was less in both Acute as well as Placebo group.

### Collective community susceptibility

This project was carried out in a residential school. It was a closed community. In a closed community there is generally a balance struck between the agent, the host and the environment. When this balance is disturbed in an unfavorable manner, contagious infections like scabies break open. In such instances the chances of cross infections are very high. When analyzing the responses at the individual and at the group level we need to take into consideration the overall load of scabies infection in that school.

When the project was started the prevalence of scabies was 57%. At the end of one year of treatment, it had come down to 32%. The prevalence further reduced to 27% at the end of the second year. The interesting finding was at the end of the third year when treatment had ceased the prevalence rate had dropped to just 17%. That means there was a drastic reduction in the scabies infection in the school.

**Graph 6-**Prevalence of scabies in the school over the period



If we understand this response from the point of susceptibility, which is the cornerstone concept in Homoeopathy, we note that there was moderate susceptibility in 83% of the cases at the commencement of treatment. With treatment and change brought about through hygienic measures for three years, 65% of cases showed improvement in their level of susceptibility. Therefore, there was an overall change in all the groups. That means they have collectively improved. In this study, since the susceptibility of 65% cases had improved individually the collective impact can be seen. These observations suggest the presence of an entity like a Collective Community Susceptibility.

This brings out a different perspective in the homeopathic management of infective conditions in a closed community i.e. Role of Homoeopathic medicines in the area of Community Medicine. Homoeopathic treatment not only helps the patient who is under treatment but it also prevents others not under treatment from being infected. This aspect of the preventive action of Homoeopathic medicines as a Community Medicine needs to be verified by further research work.

### Conclusions

1. Homoeopathic medicines are effective in the management of Scabies.
2. Homoeopathic medicines prevent the recurrence of Scabies.
3. Constitutional approach is useful in curing scabies infections in the paediatric age group. It is also far more effective in preventing recurrences in scabies than the acute approach.
4. Improvement starts within a week of the administration of the constitutional medicines.
5. Repetition of acute medicine, four times a day, has been the most useful posology practice.
6. Homoeopathic medicines act as a preventive medicines.
7. There is possibly a greater role for Homoeopathy as a Community medicine and research studies need to be specially designed to delineate this role.
8. Overall strategy of managing scabies with homoeopathic mode of treatment can be laid down as follows:
  - a. Institute and maintain adequate hygienic standards as general measure.

- b. Homoeopathic constitutional medicines to all scabies affected cases where susceptibility was in moderate zone. Cases having low susceptibility and having severe secondary infections do not respond to this mode of treatment.
- c. Homoeopathic acute medicines to those having low susceptibility.
- d. After acute treatment, completing the cure with the constitutional medicines administering the indicated constitutional medicine.

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