MANTECH Publications

Kayachikitsa: A Journal on Internal Medicine & Research

Volume 5, Issue 1, January-June 2026

Efficacy of Apamarga in the Ayurvedic Management of Leprosy

Dr. Deodatta Bhadlikar[1], Dr. Devyani Bhadlikar[2]

Principal/ Medical Director/ Professor[1], Professor[2]

Department of Shalya tantra[1], Department of Rasa Shastra & BK[2]

Rashtriya Ayurved College and Research Institute Hatnoor, Tehsil- Kannad, Dist. - Chhatrapati Sambhaji Nagar, Maharashtra[1], Sau Vandana Tasgaonkar Ayurved Mahavidyalaya Karjat, Dist.- Raigad, Maharashtra[2]

Email ID: *bhadlikar69@gmail.com[1], drdevyani.bhadlikar@gmail.com[2]*

ABSTRACT

Leprosy is a chronic infectious disease posing significant socio-medical challenges due to its prolonged course, reactions, and limitations of existing therapies. The present clinical study was undertaken to evaluate the therapeutic efficacy of Achyranthes aspera in different types and stages of leprosy. A total of 127 patients were registered and clinically examined using standard dermatological, bacteriological, and histopathological methods. Patients were classified into lepromatous and non-lepromatous types, and a decoction of the whole plant of Achyranthes aspera was administered orally. Clinical response was assessed based on changes in skin lesions, lepra reactions, nerve involvement, bacteriological index, and general health. The results indicated encouraging improvement in both reactional and quiescent stages, with reduction in erythema, oedema, nerve tenderness, ulceration, and bacteriological load in several cases. The study suggests that Achyranthes aspera has a beneficial role in the management of leprosy with good tolerability.

KEYWORDS: *Leprosy, Kushtha, Achyranthes aspera, Lepra Reaction, Skin Lesions, Bacteriological Index, Ayurvedic Management, Herbal Therapy, Chronic Skin Disease*

INTRODUCTION

LEPROSY is one of the socio-medical hazards. One who is afflicted with leprosy has little scope in society as well as for the treatment. For the treatment because still such treatment is to be invented which can be fully relief having quickly and certain action without much of the toxic effects. There are various handicaps in the field of leprosy research of which the main are our incapability of producing the disease experimentally and to culture the bacteria successfully. Really, these are the responsible factors for the present miniature form of the leprosy treatment.

Leprosy in India is very common. The disease is traceable upto vedic age which is placed to be somewhere upto 5000 B.C. India and Egypt are regarded to be the oldest homes of leprosy from where the disease started and spread.

There is a concept based on Inductive logic that nature manages to produce good and evil together. The same must account for medicine. The area where a particular disease is most prevalent must have its antidote in the nature. A similar concept is found in Indian Medical Literature that drugs of a particular area are more effective for the persons of the same area. However, these propositions cannot stand for scientific evaluations. This is truer for the herbal preparations and for the medicines of animal origin. This principle is well applicable in leprosy. India is regarded to be the pioneer country to give the herbal remedy (Hyndocarpus wighitiana), the first and foremost treatment of leprosy. But it is our feeling that it is not necessary. That with this the Indian flora has exhausted for any further contribution.

There are various aspects, aims and objects of treatment in leprosy, depending upon the type and stage of the disease and social and economic Condition of the patient. Leprosy is a chronic and self-limiting disease; usually the disease is not fatal. Death is due fo some other concurrent complication. There are periods of quisence and excrbations. Reaction is the period when the disease is most distressing; many of the complications arise during this period. Therefore, one of the aims of the treament can be only to control the reaction and the activity of the disease. So the disease May not advance and it may die its own death.

The manifestations of reaction in Leprosy are different in different types of Leprosy. The reaction in lepromatous leprosy is known as true Lepra reaction. The lepra reaction in

lepromatous Patient may be either of a short duration or it may continue for months and months together. Thus the management of true lepra reaction is itself a problem. Now a days corticosteroids are being successfully used for controlling this condition but the effect is very transient. There are patients on record who are taking continuous corticosteroid therapy regularly since more than two years and if the treatment has stopped even for a day or two the temperature shoots up and all the other Manifestations of lepra reaction reappears in no time. Peptic ulcer is one of the common complications of the prolonged therapy with Corticosteriods. The older treatment of this condition are new antiallergic Products, antimony and calcium Preparations. Therefore, one aim and object of an effort to search for a remedy for leprosy will be to find out an ideal treatment. Which can make the disease inactive and control the reaction successfully without causing any toxic or side effects.

Achyranthes aspera is being tried for this disease in this centre. It has used in Indian Medicine as diuretic in of general anasrca which is mostly due to its alkaline contents. It has been also used in various types of insects and reptile bites for reducing local Oedema and for anti Poisonous effects. The red variety of plant has been specially indicated in 'Rajnighantu' for healing of wounds and ulcers. Thus the efficiency of the plant in skin diseases according to classical description is limited to some types of dermatitis insect-bite and ulcers, It is not clearly mentioned that the drug has got any action on leprosy. Recently some information has been gathered that it has got definite action on skin lesions of lepresy. Keeping in view the classical descriptions of the drug and the recent information it was thought proper to investigate the action of achyranthes aspera on different varieties and Stages of leprosy.

MATERIALS AND METHODS

The patients for study were collected from general outpatient departments. The clinical history of patient is recorded, skin and lesions are diagrammatically represented by Dharmendra's method, and Photograph of the patient exposing the diseased part is invariably snapped. For laboratory diagnosis smears are collected from different parts of the body and are stained with modified Zneel Nelson method to demostrate acid fast bascilli and the bacterioldgical index is worked out in the Positive case, Histopathological study of the skin have been also performed in some cases. E.S.R.is recorded to make note of the activities of disease and for differential diagnosis Kahn's Test and Chepra Antimony Test is performed where required. Ultmately the cases are classified in two broad heads (1) Lapromatous (2) Non Lepromatous. Achyranthes as

pera for the treatment has been collected.

Full plant including some portion of the root had been dried and kept for use. Out of it 1: 2 decoction is prepared by direct boiling. The doses are one oz twice daily by oral route. The patients in the stage of acute reaction were advised to take rest in bed and sometimes Antipyretic and analgesic medicines were prescribed when necessary. They were advised to take nutritious diet within their capacities' and to observe the hygienic conditions around them as far as possible.

OBSERVATION

Total number of the patients registered for investigation was 127. Two types of patients have been noticed. One who are very much horrified with this disease and the other who are quite careless about it and want to hide it as long as possible. There are many misunderstandings regarding this condition. The patients suffering from all types of skin diseases have visited O.P.D. Mereover the patients of leucoderma invariably identifiy themselves with the leprosy. The cause of these misunderstandings seems to be the use of the word 'Kusntha' in Indian medicine for various types of Skin diseases in common.

Due to chronic nature of the disease & unsatisfactory treatment the people are so much disheratened and apathetic about this disease that it is very difficult to convince them for cure. This lack of confidence is a great hinderance for continuation of treatment upto the required time. When the acute reaction is passed off, most of the patients have been found to discontinue the treatment. Tha patients' statement regarding the certainity of taking the treatment is not always correct.

The total number of patients registered for investigation was 127, out of which 19 patients had positive skin smears and 108 patients had negative smears. The positive cases were mostly of lepromatous type. Their age and sex incidences were as follows:

Table 1: Age Incidence of Leprosy patients

Age Group	Lepromatous	Non-Lepromatous	Total
1-10	1	6	7
11-20	2	9	11
21-30	8	27	35
31-40	5	20	26
41-50	0	30	30
51-60	1	10	11
61-70	1	6	7
Total	**19**	**108**	**127**

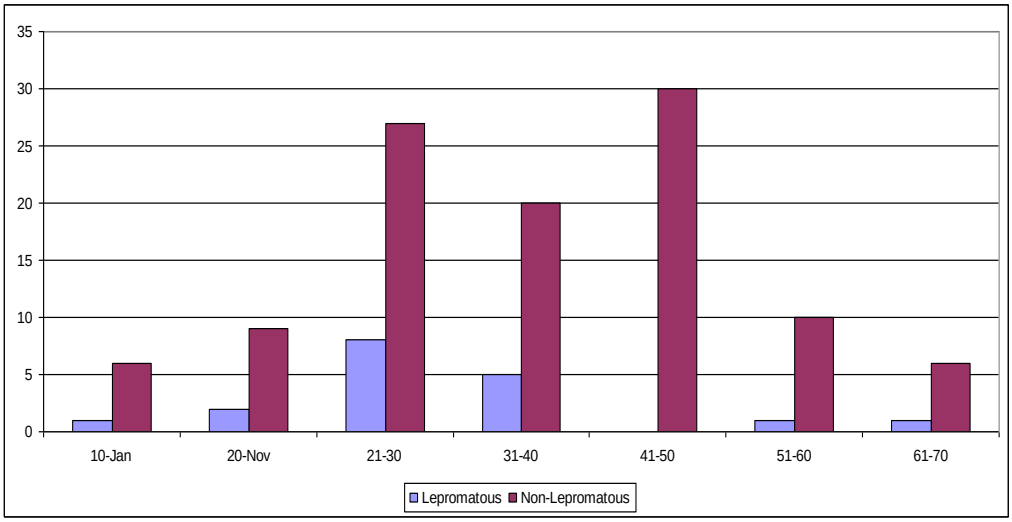


Table 2: Sex Incidence in Leprosy patients

Sex	Lepromatous	Non-Lepromatous
Male	16-41.2%	86-79-63%
Female	3-15.81%	22-20.7%

The above tables show that the maximum age incidence of leprosy patients in this part of our country is in between 20 to 50 years of the age. The lepromatous variety develops earlier than the tuberculoid variety. The ratio of the male patients as compared to the female patient is 4:1. The patients who are under study are usually from poor income group diet. Their living conditions are unhygienic.

Response of treatment in patients with positive skin smears:

Out of the 19 patients who had, positive skin smears by ordinary method. Fourteen patients came in the stage of reaction and rest of them had active lesions but none of them was in quiscent stage. Overall, the response of treatment looks to be encouraging. We had opportunity to have repeated bacteriological index in nine patients. Out of them six patients showed a clear fall in the bacteriological index. In two patients, it was more or less the same and in one patient who was negative previously became positive later on. However, the clinical improvement was noted near about in all cases. Reaction subsided, the thickness of the patches and erythema was reduced. Marked improvement was noticed in few cases of erythema nodosum. Oedema of hands and feet passed off & marked improvement was reported in burning, tingling and pain. Nerve tenderness was also controlled in quite good number of patients. The area of anesthesia have been also reduced in some Gases. The trophic ulcers and ulcers of lepra-reaction had tendency to subside quickly with this treatment. Besides these specific improvements, there was general improvement in appetite, constipation & their general feeling. The detailed description of their progress is given.in table No. 3.

Response of treatment in Tuberculoid type of Leprosy patients:

Satisfactory progress was found in skin lesions, Activity of the disease was controlled erythema subsided and the thickening of the skin was reduced. Nerve tenderness and nerve thickening were also reduced but there was very little improvement in reaction cases oedema of hand and feet, oedematous skin lesions subsided very quickly. However, this cannot be ascertain to be the effect of medicine because it has been observed and reported that the reaction in tuberculoid cases may subside even without treatment. In few cases the aggravation of the symptoms was noted instead of improvement, the details of improvement is given in table No. 4.

SUMMARY

One hundred and twenty seven cases of Leprosy have been studed of differant varieties. Out of

them, a good number of patients have positive skin smears. They were treated with has been found to be effective both in reaction and quiscent stage of the disease. Skin lesions and ulcers have tendency to subside quicky with this treatment. Bacteriological Index has alsh improved.

Table 3: Progress report of Leprosy patients having positive skin smear

S.No.	Age Sex	Duration Treatment in months	Bacterio logical index before treatment	Bacterio logical index after treatment	Resuls of treatment in signs and symptoms
1	40 M	17	3	1	Erythematous patches subsided burning and tingling relieved. Nerve tendernees and nerve thickening reduced.
2	50 M	14	4	3	Ulcers healed. Erythematus Patches subsided. Oedema subsided, Burning and tingling subsided. Nerve tenderness and thickening reduced. Glove and Stocking anaesthesia reduced.
3	12 M	12	4	3.83	Ulcers healed. Oedema subsided. Erthema nodosum and nerve thickening subsided.
4	28 M	11	-	3	Burning and_ tingling partially relieved. Oedema relieved No improxement in skin patches, nerve thickening and anaesthesia.
5	55F	11	1	-	Oedma and erythematous patcoes subsided. Burning and tingling relieved. Nerve tenderness and nerve thickening partially relieved.

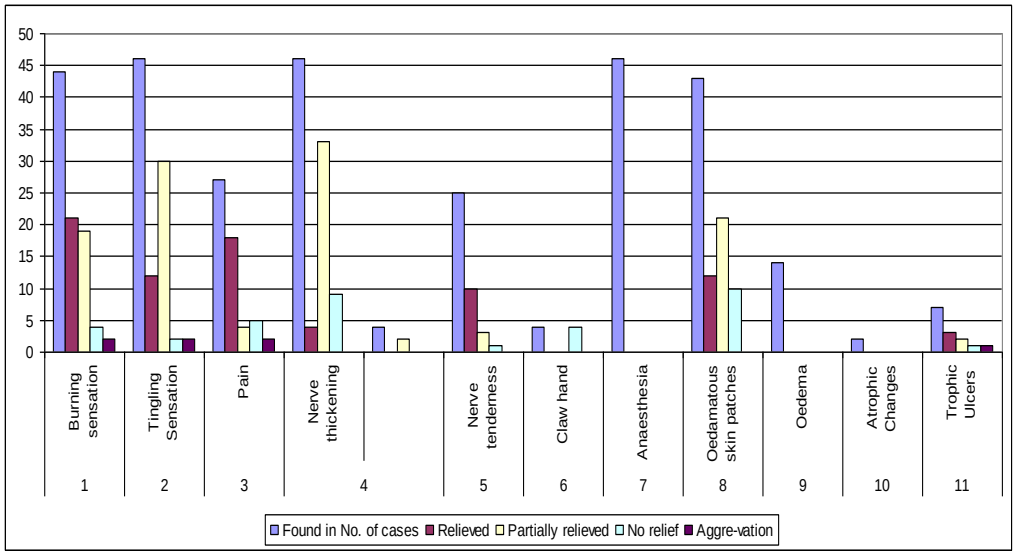
6	28M	10	4	2	Ulcers healed, Oedema sub-sided. Skin rashes subsided burning tingling partially relieved.
7	35M	8	2	-	Erythematous patches and Oedema subsided. Burning and tingling partially relieved. Nerve thickening and tenderness reduced. Little improzement in anaesthesia.
8	25M	6	2	1	Erythematous patches and oeadema relieved. Burning, tingling, nerve tenderness and. nerve thickning partially relieved.
9	M	5	2	-	Burning and tingling partially telieved, Nerve thickening and nerve tenderness slightly relieved.
10	M	5	3.5	3.5	Erythema nodosum and Patches subsiding. Oedema subsided glove and stocking anesthesia partially relieved. Nerve thickening and nerve tenderness partially relidevd. :
11	M	4	3.35	-	Slight improvement in erythema nedosum. No improxement in burning tingling nerve thickness and nerve tenderness.
12	M	3	2	-	Erythema of the patches slightly reduced no improvement in glove and stocking anesthesia.
13	M	2	1.5	-	Erythema of the -skin patches partially relieved. No improvement in burning tingling, nerve thickening and nerve tenderness.

14	M	2	2.33	-	Oedema and Erythematous patches partially relieved, Partial imprevement in burning and tingiing. No improvement. in nerve tenderness nerva thickening and anesthesia
15	M	1	1	-	No improvement yet noted
16	M	3	-	-	Erythema nodosum and oedema subsiding. Burning and tingling partially relieved
17-19	-	-	-	-	Are recent cases under observation

Table 4: Result of treatment in patients of Leprosy having Negative skin smears

S. No	Chief Compliant	Found in No. of cases	Relieved	Partially relieved	No relief	Aggre-vation
1	Burning sensation	44	21	19	4	2
2	Tingling Sensation	46	12	30	2	2
3	Pain	27	18	4	5	2
4	Nerve thickening	46	4	33	9	
		4		2		
5	Nerve tenderness	25	10	3	1	
6	Claw hand	4			4	
7	Anaesthesia	46				
8	Oedamatous skin patches	43	12	21	10	
9	Oedema	14				

10	Atrophic Changes	2				
11	Trophic Ulcers	7	3	2	1	1



CONCLUSION

The present clinical study was undertaken to evaluate the therapeutic efficacy of *Achyranthes aspera* in different types and stages of leprosy. A total of 127 patients suffering from lepromatous and non-lepromatous varieties of leprosy were treated with a decoction of the whole plant. The observations made during the course of treatment indicate that *Achyranthes aspera* produced encouraging results, particularly in controlling lepra reactions and reducing the activity of the disease.

Significant improvement was observed in reactional symptoms such as erythema, oedema, nerve tenderness, burning sensation, pain, and ulceration. In lepromatous cases with positive skin smears, a reduction in the bacteriological index was noted in several patients, along with marked clinical improvement. Skin lesions showed reduction in thickness and erythema, trophic ulcers healed faster and general health parameters such as appetite and bowel habits improved. In non-lepromatous cases, the activity of the disease was effectively controlled, and regression of skin lesions and nerve involvement was observed.

The drug was well tolerated, and no significant toxic or adverse effects were reported during the study period, indicating its safety for prolonged use. Although the study does not claim a

complete cure of leprosy, the findings suggest that *Achyranthes aspera* plays a beneficial role in managing lepra reactions, controlling disease activity, and improving the quality of life of patients.

Thus, *Achyranthes aspera* may be considered a useful supportive and adjunctive herbal remedy in the management of leprosy. Further controlled and long-term studies with larger sample sizes and comparative drug trials are recommended to substantiate these findings and to explore the exact mode of action of the drug.

REFERENCES

1. Dharmendra. **Leprosy**, Vol. I & II. Bombay: Kothari Medical Publishing House; 1967.
2. Cochrane RG. **Leprosy in Theory and Practice**. Bristol: John Wright & Sons Ltd.; 1964.
3. Davey TF. **Complications of Leprosy**. London: John Wright & Sons Ltd.; 1963.
4. Bhavamishra. **Bhavaprakasha Nighantu**. Commentary by Chunekar KC. Varanasi: Chaukhambha Bharati Academy.
5. Sharma PV. **Dravyaguna Vijnana**, Vol. II. Varanasi: Chaukhambha Bharati Academy.
6. Nadkarni KM. **Indian Materia Medica**, Vol. I. Bombay: Popular Prakashan.