

\**ALECTRA PARASITICA*

A. Rich (variety *Chitrakutensis*)

An indigenous drug in the treatment of leprosy in Bihar  
—a preliminary observation

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### Introduction

Only two years back an indigenous plant was brought to light by the former Health Minister of Bihar, Shri B. C. Patel, who very sincerely wanted the plant to be scientifically assayed for the treatment of leprosy. This plant was shown to be effective in "Kushta" by the practitioners of indigenous medicine.

On investigation it was found out that the plant was unknown and unnamed till now. A botanical expedition arranged by the Botanical Survey of India to the Central India discovered this plant. Its identification was confirmed by Kew Herbarium, London, and it was named *Alectra parasitica* A. Rich. (*Var. Chitrakutensis*).

This is a parasitic plant which grows on the root of *Vitex Nigundo*. It springs up during the rains and sucker rhizome matures in the month of October and November, when it is collected. Dried powder of the mature rhizome is used for the treatment of leprosy.

It has been used in powder form against leprosy by the practitioners of indigenous medicine in a dose of 90 grains per day in divided doses.

In order to put this drug on scientific basis it was decided to investigate its pharmacognosy and phyto-chemistry. The chemical composition of the plant has been determined (PRASAD and GOEN, 1961) and has been found to contain some alkaloid, the nature of which is still to be determined. Other detailed investigations about pharmacological properties and clinical evaluation are proceeding.

On screening it was found that the crude drug was active against *M. tuberculosis* in a concentration of 6 per cent or above (in vitro).

### Method and Material

10 cases each of lepromatous and tuberculoid type of leprosy were chosen for study during the period of January 1961 to February 1962 at the Drug Research Section of the Institute of Pharmacy. The patients belonged to different districts of Bihar and had agreed to visit the centre at regular intervals and when called for.

The drug powder was made into tablet form of 0.5 gm. and was given in a dose of 8 tablets daily orally in divided doses. A dose more than 4 gm. was not tolerated by the patients.

\* Original paper read in the All India Dermatological Congress—1962, Calcutta.

The scheme followed for the research was:

1. Clinical examination of the patient.
2. Photograph of the patient was usually taken.
3. Bacteriological examination of the skin smear formed the basis for confirming diagnosis. In lepromatous cases number of bacilli under 1/12 eye piece of microscopic field was determined before the therapeutic trial was started.
4. The cycle of physical examination and microscopic examination was repeated every six months.
5. Blood examination—Total count, W.B.C. count, differential count and Haemoglobin percentage were done in every case.

### Results

In the tuberculoid type of leprosy patients were relieved of tingling in 6 months time. It was accompanied with diminution of the area of the anaesthetic patch. It was noted that anaesthesia began diminishing first at the periphery. There was spectacular effect on the thickness of the nerve during this short period particularly in one case. The depigmentation gradually diminished in intensity. The tuberculoid group of cases were bacilli free from the very beginning.

In lepromatous cases all the patients showed extensive lesions all over the body. Acid fast-bacilli were present in all the samples of skin smear. On treatment with the drug under investigation, the raised erythematous patches became flattened out, lost their erythema and were changed to dark hue in two months' time. The overlying skin became shrivelled due to decrease in infiltration. The lesions to respond first were on the extremities, then those on the trunk and last of all the facial lesions responded.

After 6 months the number of acid fast bacilli decreased to an enormous extent from (++++) to (+). The patients were satisfied and they always came with a feeling of well-being.

The nasal smear became negative after 6 months of therapy.

### Discussion

Daily dose of 4 gm. was tolerated well by the patients. Any increase in dosage was followed by a few loose motions. Otherwise there was no other side reactions. The drug in powder form was bulky and not convenient for the patients to carry and take. They liked tablets and the tablet form being more convenient was adopted during the trial.

During this short experience the drug has been found free of any toxic reactions. No untoward action could be noted on the erythropoietic system nor was there any case of sensitization. Further work is being done.

**Summary**

It may be concluded from the short preliminary clinical trial on a very limited number of patients that this indigenous drug has a definite role in the therapy of leprosy. An evaluation of the drug for over one year has shown encouraging results. It deserves further clinical trial, in a more systematic way in different recognised institutions to arrive at a conclusion.

If the alkaloid is made available in pure form, it will be possible to proceed with the systematic work of finding out the pharmacological action, absorption and excretion, toxicity, dosage and then its clinical evaluation and with this end in view, the work is being continued.

**Acknowledgement**

Acknowledgement is due to Messrs. Baidyanath Ayurved Bhavan, Patna, for the generous supply of indigenous material for clinical and chemical evaluation.

**References**

PRASAD, BIRENDRA N.; GOEN, G. K. *Arch. Inter. Pharmacol. Therap.* 1961—in press.