

# OBSERVATIONS ON THE MANAGEMENT OF LEPRO REACTION

By

S. P. SINHA

## INTRODUCTION

Leprosy is a chronic disease with long period of activity. During its prolonged course there are moments of exacerbations. There is rapid extension of lepromatous lesions and new ones also appear. These bouts of exacerbations are known as Reaction. This acute or sub-acute episode is linked with an immunological process.

Disturbance of the immunological equilibrium may precipitate an acute attack with varying manifestations. Several factors disturb this equilibrium. It may be physical or mental stress, change in environment, seasonal variation, inter-current infection, endocrine imbalance, parturition or administration of drug. Some authors consider this development as natural history of this disease.

A patient who was undergoing a chronic course suddenly develops rash over extremities, thigh, face and trunk. He develops erythema nodosum, erythema multiforme. Some patients develop arthralgia, myalgia, polyneuritis, iritis, gynaecomastia and fever.

The whole aim of management is to eliminate or interfere with the triggering factors. Symptomatic treatment provides relief from fever, pain, ocular, neural and testicular reaction. Drugs like antimonials, antimalarials, long acting sulfonamides, steroids, capryna compound etc. have been used.

Cawston (1920) reported improvement with 2% sol. of tartar emetic. Maples (1921) reported good results with tartar emetic. Hoffman (1927) found antimony a useful drug. In earlier days mercurochrome and sodi-bicarb sol. were given i. v. Dr. Sheskin used thalidomide in lepra reaction. Prof. Bhel has found capryna compound a useful drug.

## MATERIALS AND METHODS

The present study has been carried out at Gaya. Gaya is a historical place with a population of four millions. Per capita income of this state is lowest in India. On sample survey it was found that roughly 1% of population was suffering from leprosy. It has the biggest leprosorium of the state with 150 beds. The present work has been carried out from May, 1966.

Seventy cases were included for trial, sixtyfive male and five female. All were in age group of twenty to sixty years. Only moderate to moderately severe cases were selected without any bias. Laboratory facilities were meagre and literatures were not easily available. Under these limitations the present study was carried out

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\*Pilgrim Hospital Gaya.

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## INVESTIGATIONS

Routine skin smear, total and differential W. B. C. ESR and Hb. were done. A. F. B was present in all cases. ESR was raised and majority of them were anaemic.

## DOSE SCHEDULE

The following dose schedule was followed.

*Antimonials.* P. A. T. 0.02 Gm in 10 ml. Saline i. v., then 0.04 gm. in 10 ml. N. S. i. v. four such.

Fantorin: 2 ml. i. m. alternate day six such, in some cases even twelve injections were given.

*Antimalarials.* Chloroquine (Nivaquin) 1 tab t. d. s. for 7 days, then 1 tab b. d. for 7 days and in some cases 1 tab daily was continued for 2 months.

*Corticosteroids.* Prednisclone 5 mg tab...dose 20 to 30 mg.

*Metranidasole (Flagyl).* 1 tab t. d. s. for a period of 2 weeks.

*Capyna Compound.* 2 tabs t. d. s. for 4 to 6 weeks.

*Placebo.* In this case only pills of sugar of milk were used.

## "Group A" Antimonials

Response	No. of cases 15	%	Relapse
Good	10	66.6	
Fair	4	26.6	
Poor	1	6.6	8 (53.3%)

The above table shows that the antimonials have stood the test of time and are valuable in the management of lepra reaction. Relapse rate was high.

## "Group B" Steroids

Response	No. of cases 15	%	Relapse
Good	14	93.3	
Fair	1	6.7	
Poor	0	0	15 (100%)

It shows that steroid is very effective drug, but relapse is frequent.

Dr Ramu has drawn attention towards rebound phenomenon on withdrawal or even lowering the dose.

## "Group C" Antimalarials

Response	No. of case 10	%	Relapse
Good	3	30	
Fair	4	40	
Poor	3	30	2 (20%)

Antimalarials are cheap, handy and economical, but response is not good as steroids or antimonials.

**"Group D" Flagyl**

Response	No. of case 10	%	
Good	1	10	
Fair	6	60	Relapse nil.
Poor	3	30	

Flagyl was given to these cases, but the result is not promising and also the drug is very costly.

**"Group E" Capyna Compound**

Response	No. of case 10	%	
Good	0	0	
Fair	4	40	Relapse 2 (20%)
Poor	6	60	

Capyna has been tried by several authors. Dr. Bhei has found good result in 75% of cases, but present work does not corroborate his findings.

**"Group F" Long acting Sulfa**

Response	No. of case 5	%	
Good	2	40%	
Fair	1	20	
Poor	2	40	Relapse 1 (20%).

The result in this group has been impressive, though only 5 cases were only studied.

**"Group G" Placebo**

Response	No. of case 5	%	
Good	0	0	
Fair	2	40	Relapse nil.
Poor	3	60	

Placebo has not given good result.

**DISCUSSION**

Management of Lepra reaction is a troublesome affair. Antimonials in the present study have been found effective in 66% of cases and relapse rate was 53.3%. One disadvantage with this drug is that it can not be used in liver and kidney diseases and P. T. Antimony being a heavy metal can not be used for a long time.

Corticosteroids are very effective. It gave good result in 93% of cases, but the greatest drawback with this drug is the drug dependence and frequent relapse. All the patients had relapse. Various side-effects like moon-facies, hirsutism, acne vulgaris and peptic ulcer have been reported. In the present work only one case developed moon facies.

Antimalarials are cheap and effective. Only three cases showed good response. Relapse rate was low. Various side-effects like maculopapular eruption, bleaching of hair, irreversible eye changes and blurring of vision have been reported. But in the present study no side-effect was reported.

Flagyl was tried in 10 cases and only one case showed good result. Relapse was not observed.

Long acting sulfonamides were found effective in 40% of cases and relapse was observed in 20% of cases.

Capyna compound and placebo have given similar result and has not been promising.

All the cases under study were given aspirin and salicylates for its antipyretic and analgesic effect.

#### SUMMARY

- ✓ 1. Seventy cases of Leprosy reaction were studied.
2. Value of antimonials is stressed.
3. Corticosteroid is very potent, but should be sparingly used for its frequent relapse, drug dependence, prohibitive cost and undesirable side-effects.
4. Antimalarials have shown good result.
5. Flagyl was found effective in only one case. It needs further trial.
6. Capyna and placebo have not proved effective.
7. Long acting sulfa have given good result and is worth trying. ✓

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