

## FILARIASIS COMPLICATING REACTIONS IN LEPROSY

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### Summary

"Two cases of Lepra Reaction precipitated by Filariasis are reported. The treatment of Filariasis with Diethyl carbamazine citrate could effectively treat the reaction without any recurrence. The necessity of recognising Filariasis as precipitating factor for Lepra Reaction in tropical countries where the Filariasis and Leprosy may both co-exist in high proportions is emphasized. Proper investigation for diagnosis and treatment of Filariasis in such cases shall have rewarding results."

Reactions in leprosy denote bouts of exacerbation in the otherwise placid course of Leprosy. The cause of this flare-up continues to be an enigma. There are some indications that the condition may be auto-immune (Dharmendra, 1967 and Turk, 1970).

Apart from drugs like Sulphonamides or iodides any febrile condition like malaria, typhoid and influenza etc. can potentially trigger the reaction (Koticha, 1963). Browne et al. (1962) have recorded precipitation of reaction in leprosy by smallpox. Muir (1962) applies to reactions in leprosy the ideas of Selye on General Adaptation Syndrome. He regards lepra reaction not as a uniform response to one agent but as a response to a large number of unrelated factors.

However, we are located at a place where Leprosy exists in very high pro-

portion. There is also high percentage of Filariasis. It is but natural that the two conditions may co-exist and each may modify the clinical picture of the other. Our attention was focussed on this subject when a case of lepra reaction failed to respond to all methods available to us for control of the same. Early morning rise of temperature prompted us to take blood smear for microfilariae which came out to be positive. A simple treatment with Diethyl carbamazine Citrate worked wonderfully well not only for controlling the reaction but also for preventing recurrences.

### Materials and Methods

We came across following two cases of Lepromatous Leprosy who were manifesting Lepra Reaction for a period of six months and three years in the form of fever, joint pain and exacerbation of the leprosy lesions and Erythema Nodosum Leprosum.

### Case I

V. P., 28 years male, a case of lepromatous leprosy - had been suffering for the past three years with the complaint of fever, severe headache, joint pains and painful erythematous nodules over the limbs.

### Investigations :

Skin slit for A.F.B. + + + + (Ridley)  
T.L.C.-15,200, D.L.C.-P<sub>50</sub>E<sub>22</sub>L<sub>28</sub>  
Blood smear was positive for Microfilariae.

Treatment with Hetrazan gave prompt and satisfactory response which

has since been maintained for the last two years. The patient had mild reactions twice which were precipitated by sore-throat and controlled with antibiotics within a few days. Patients getting dapsone in the doses of 5 mgms biweekly and is improving.

## Case II

K. N., 19 years male, a case of lepromatous leprosy presented with features of Leprosy Reaction for the last 6 months. Having become wiser by our earlier experience, we could elicit history of fever with rigor showing intermittent pyrexia, non-pitting oedema over the feet and legs with inguinal lymph node enlargement. Each relapse was associated with recurrence of E. N. L. over the extremities.

### Investigations:

Night blood smear - M.F. +ve.

T. L. C. - 10,500.

D. L. C. - P<sub>45</sub> E<sub>5</sub> L<sub>41</sub>

E.S.R. - 38mm./1st hour. (Western greys)

Skin slit for A.F.B. + + + (Ridley).

Patient was treated with Inj. Procaine Penicillin 4 lac I/M daily for 4 days, tablet Hetrazan 2 tds. for 21 days. The patient showed complete recovery from reaction, oedema feet and legs subsided. Patient was started on D.D.S. and the dose is being increased slowly. There

has been no recurrence of reaction for the last one and a half years and patient is improving.

## Discussion

How baffling could it be to differentiate acute lepra reaction from acute attack of Filariasis when both co exist in the same individual? Filariasis may, like any other febrile conditions, precipitate lepra reaction. The above study has demonstrated that in tropical countries where there is high incidence of Leprosy and Filariasis, the Filariasis may precipitate and produce lepra reaction. It should, therefore, be stressed that apart from other causes which may precipitate lepra reactions or reactions in leprosy in tropical countries, Filariasis should be considered as an important trigger mechanism. A high index of suspicion is thus called for to exclude Filariasis as precipitating factor of reactions in Leprosy in places where the two prevail in high percentage. Recognition of this factor followed by adequate treatment shall produce extremely rewarding results.

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## REFERENCES

1. BROWNE SG, DAVIS EM: Reaction in leprosy precipitated by small-pox vaccination. *Leprosy Review* 33 : 252-254, 1962
2. DHARMENDRA: Notes on leprosy, Ministry of Health, Government of India, 1967
3. KOTICHA KK: Diagnosis and management of reaction in Leprosy. *Ind. J. Derm Vener* 29 : 131-140, 1963
4. MUIR E: Leprosy reaction and general adaptation syndrome. *Leprosy Review* 33 : 240-251, 1962
5. TURK JL: Contribution of modern immunological concepts to an understanding of disease of the skin. *Brit Med J.* 3 : 363-368, 1970