EDITORIALS

NERVE ABSCESSES AND PURE NEURITIC LESIONS IN LEPROMATOUS LEPROSY

Two distinct questions about the lesions of trunk nerves in lepromatous leprosy have long remained without satisfactory answer: (1) Do nerve abscesses occur in lepromatous leprosy, and if so when and how frequently? (2) Do pure neuritic lesions of lepromatous nature occur without previous or coincident skin lesions? The purpose of this note is to call the attention of anyone who has definite proof of the existence of either of these conditions to the need of reporting his observations.

I

Nerve abscess has long been recognized to be a feature, neither common nor rare, of tuberculoid leprosy, and to be due to acute reactional processes affecting previously quiescent caseous lesions. It seems probable that such abscesses, with a tuberculoid basis to their pathology, may sometimes be seen in cases that were previously tuberculoid but have become borderline and easily mistaken for lepromatous.

This may be the explanation of assertions concerning which there was correspondence back in 1939 with Austin, in Fiji, and Muir, in London. In his inquiry the Editor asserted that he had twice seen acute abscess conditions of the ulnar in lepromatous cases, the gross specimens from one of which had been photographed and published, but they were very different from the "cold abscess" type of tuberculoid cases. Austin thought his two cases were of the former kind but had made no examinations. Muir's case was regarded as L2 but had probably been neural at first, and the abscesses—five of them—were of the cold abscess type. He could not recall

\footnote{THE JOURNAL 7 (1939) 274-276 (correspondence).}
seeing a nerve abscess of the acute type such as may occur in lepromatous nodules in lepra reaction.

Later Muir wrote that nerve abscess “is almost always associated with the neural type, though it has been reported in a few lepromatous cases.” References to reports of such cases are lacking. Cochrane has said that in acute neuritis in lepromatous leprosy there are more or less marked changes “without actual abscess formation.” No information on the subject could be found in other books referred to.

Anyone with definite data on any case of this sort, with lesion material examined histologically and proved to be lepromatous and not tuberculoid, would do well to report it.

II

There exists in some quarters a belief that there occur lepromatous cases with nerve lesions sufficient to be diagnosed, but without skin lesions, past or present. Others doubt that cases of the nonresistant lepromatous form, lepromin negative, could confine the infection to the nerves and not have skin lesions—granting of course that there may be secondary neural cases whose skin lesions have disappeared.

The former point of view has been sufficiently widespread that the recent classification scheme (Rio de Janeiro, Havana, Madrid) has included in the list of varieties of the lepromatous type a “pure neuritic” form. The Madrid report, however, contains a footnote, “Cases of this variety have been observed by some workers, but have not as yet been reported in the literature.”

In a recent symposium on nerve biopsy there was very little that pertains to this subject. Basombrio and Fernandez spoke of a case in which nerve biopsy had revealed bacilli, and lepromatous skin lesions began to appear some days afterward; the histology of the specimen is not mentioned.

At Madrid was seen an abstract by Miranda, of Curitiba, Paraná, Brazil, of a case of “lepromatous mononeuritis,” without other lesions, shown to be lepromatous by bacteriological, immunological and histological examinations. The report was withdrawn because it was found that more than one nerve was affected, and because the patient refused further biopsies and it could not be made sure that there was no histological skin lesion. This instance is cited to illustrate the difficulty of decision and proof in this matter.

The only report with any supporting evidence of which we are aware is a brief one buried in an article on the value of the lepromin reaction in diagnosis of clinical form, by Schujman. The patient had no skin manifestation, or any recollection of having had any; he had two painful tumors of the left arm and elbow adherent to a badly affected ulnar nerve. The condition was assumed to be tuberculoid until repeated lepromin tests gave negative results. The nerve was transposed, and a piece

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4 THE JOURNAL 21 (1954) 505.
5 THE JOURNAL 21 (1953) 242-249.
6 MIRANDA, R. N. Personal communication.
of it was removed for biopsy; nothing is said of the appearance or nature of the "tumors." Histological examinations showed the lesions to be frankly lepromatous, and a photomicrograph was published to illustrate the fact.

In view of the continuing uncertainty about this matter, as indicated by the classification committee at Madrid, anyone who has a properly documented case of pure neuritic lepromatous leprosy would render a service by reporting it in detail.

—H. W. WADE

CHATTERJEE ON NEURAL CHANGES

Dr. S. N. Chatterjee, long and widely known as a student of the nerve affections of leprosy, has asked that we comment editorially on his article on the mechanism of neural signs and symptoms which appears in this issue. It is recommended that everyone responsible for the care of patients with neural sequelae or otherwise interested give thought to his hypothesis. That is, that the manifestations of nerve involvement cannot be ascribed entirely to degeneration of the nerve fibers but are in part at least abnormalities of function due to local insufficiency of circulation, and that they can be benefited by measures which will improve the blood supply. Beyond this, Dr. Chatterjee may speak for himself:

You know how long I have worked on thickened nerves in leprosy, noting many anomalies, and how sorry I was to see the sufferings of the patients on account of trophic ulcers, muscular paralyses, and deformities. I could see that amputation was not a solution of the problem of trophic ulcer, and that tarsorrhaphy produced only temporary improvement. It was also seen that cure means nothing to a patient if he goes back to society with deformities. Therefore I undertook to find out the real cause of the sequelae of nerve involvement in leprosy, and ultimately came to the conclusions given in my article. That there is lowering of temperature can be told by grasping a deformed, wasted hand, and that can be caused only by diminished blood circulation. Keeping this physiological phenomenon in view, I treated many cases and was able to prevent the development of neural sequelae, and often to correct, partly or completely, changes that were already present. Reports of this work were published from time to time, but in total it took me about 20 years to collect the material for this thesis, and another long period to prepare the report.

Nowadays we hear of physical therapy departments where the patients spend long periods flexing their fingers and hands. Obviously, this causes increase of blood flow to the muscles, and presumably that contributes to such improvement as occurs; certainly regeneration of destroyed nerve fibers cannot result from the exercises. Once upon a time we investigated the possibility of experimenting with an apparatus for producing alternating periods of vacuum and pressure as sometimes used for patients with certain diseases of the arteries, the limb under treatment being in a sealed-off boot of glass or transparent plastic, like a tall, round museum jar. Nothing came of that, partly because the arteries are not diseased in leprosy, and nobody suggested what Dr. Chatterjee now does. It might be worth while, where physical therapy is done, to experiment