

EFFECTS OF LEPRA REACTION IN LEPROMATOUS LEPROSY

(Continued)

Since the symposium on this subject was published in a recent issue [THE JOURNAL 25 (1957) 403] the following further replies to the questionnaire of Schujman have been received.

From Dr. T. F. Davey, Uzuakoli, Nigeria.—My experience in Nigeria agrees with that of many others that reaction occurring during chemotherapy is frequently beneficial. It is not necessarily so, however, and it does not follow that as a general principle reaction should be deliberately induced.

Reaction occurring during the early stages of treatment was formerly common here, but during recent years its importance has greatly declined, mainly no doubt because lepromatous patients seek treatment in progressively earlier stages of their infection, though a tendency to a more conservative dosage regimen may also be a contributing factor. I see no advantage in stimulating reaction at this stage.

Late in treatment, when the bacterial index has fallen to 1.0 or less, reaction continues to be important. Most of our patients pass through a phase of reaction, either of the erythema nodosum type or localized, particularly in nerves. At this stage there is no doubt that the reaction often expedites the clearance of acid-fast material, but I personally do not make any effort to induce it for the following reasons.

1. Borderline leprosy is very common in Eastern Nigeria, both clinical and histologic evidence suggesting that a high proportion of our lepromatous cases represent a degeneration of a condition previously borderline. Under chemotherapy this state of affairs is not necessarily permanent, and ultimately a reversion to the borderline condition seems not at all uncommon, accompanied by reaction of varying intensity. Frequently this is both controllable and beneficial, but I have known patients in whom the immunologic change has occurred explosively, and in such cases reaction has been witnessed which was both severe and persistent and responded to nothing but large doses of cortisone—and that effective for only a few hours. The miserable condition to which such a patient is brought would make one loth to initiate what may become something like a chain reaction.

2. Reaction is very commonly localized in nerves. We find, as do other workers, that in the lepromatous state neuritis rarely leads to permanent motor damage, but when it is associated with a change in immunologic response this no longer applies. Borderline leprosy may be associated with extremely severe and permanent nerve damage, and when a borderline element has been present I have sometimes found it impossible to prevent lasting paralysis in spite of hormone treatment, injections into the nerve, surgery, and physiotherapy. When there is any question of a reversion from lepromatous to borderline leprosy, reactions may be fraught with a real hazard.

My attitude toward reactions is therefore conservative. It seems to be of the greatest importance that cheerfulness and tranquility should be maintained in patients undergoing prolonged chemotherapy, with as little disturbance as possible to their daily lives. In many of them a reactive state is to be expected sooner or later. When it comes we can with care make good use of it to the advantage of the patient, but we should not deliberately stimulate it because of the risk of inducing something which we may not be able to control in a patient whose immunological state is unstable.

The sterilization of the tissues of acid-fast material may be very desirable, but that could become a fetish if sought at the expense of the patient's well-being.

There seems to be very little risk of infectivity persisting to any extent once chemotherapy is well under way, and if I were a patient I should prefer to keep my debris and continue chemotherapy indefinitely, rather than deliberately undergo hazardous adventures which might satisfy the laboratory technician but might bring undesirable side effects in their train.

From Dr. Dharmendra, Chingleput, India.—When the questionnaire about the effects of lepra reaction was received I drafted a reply, but before sending it I wanted to get from the Leprosy Department in Calcutta certain data regarding the incidence of eye lesions in cases with and without reactions, a matter which we investigated some time ago. However, I did not get the required data, and in the pressure of current activities the questionnaire remained unanswered. The following replies are based on general impressions, without data in support of them. They are with reference to the typical "lepra reaction" as generally understood, with fever, fresh nodules and patches, and general symptoms.

1. Severe ill effects in leprosy are not confined to, or more frequent in, the cases which have not had lepra reaction or only infrequent and mild reactions. On the contrary, they may be more frequent in cases which have had severe reaction. In other words, progression of the disease has often been observed after severe and prolonged lepra reactions.

2. Lepra reactions are not believed to exert a beneficial effect on the course of the disease. There may be temporary regression of lesions immediately after a reaction, but this is usually followed by further progression of the disease.

3. In view of the foregoing, artificial induction of lepra reaction is not believed to be of any therapeutic value. On the contrary, it may have a harmful effect.

4. The typical febrile reactions provoked by the sulfones are not regarded as beneficial. The same may not be true of the afebrile erythema-nodosum type of reaction.

From Dr. Héctor Fiol, Buenos Aires, Argentina.—In the light of my own experience, I believe that severe lepra reactions have no beneficial effect whatever in the evolution of lepromatous leprosy. On the contrary, it has a disadvantage in the sense that it generally compels a temporary suspension, or diminution, in the specific medication.

In some cases, under the unruly severe lepra reactions the patient reaches a state of exhaustion, and is the victim of serious complications which may even lead to death. This possibility alone, remote as it may be, should be sufficient cause to advise against inducing such reactions in therapy.

True enough, once the critical moment of the condition has passed a substantial abatement of the disease becomes evident, but it is not less true that this mitigation is brought about at the expense of much greater risks than those that are contingent upon the normal evolution of the disease. The repercussions, or consequences, of severe reactions on such noble organs as the liver, the spleen, or the kidneys, or even on the nervous system, must never be overlooked. It is not unusual that, in the long run, such reactions leave after-effects that tend to befog the prognosis of the case.

I have in my files the observations of the case of an 18-year-old girl who, after having overcome repeated episodes of lepromatous reactions accompanied by a mild albuminuria, showed a remarkable fading of the clinical manifestations of the disease. Nevertheless, her case ended in death a few years later, attributable to renal insufficiency. To what an extent can we say that the lepra reactions were responsible for this outcome it is difficult to establish, yet the suspicion remains.

A certain antagonism exists between intense lepra reactions and severe ocular lesions, but this fact points to nothing conclusive because we have observed the one accompanied by the other, and vice versa. On occasions, acute and repeated lesions of the eyes, particularly those of the iridocyclitis type, may be considered as a special and preferential localization of the lepra reaction itself.

From Dr. J. Ross Innes, London, England.—I view with great caution the idea that lepra reactions are beneficial. This idea may well be a survival from the days when any activity seemed good in the dead dull days of ineffective therapy. Like Slim Callaghan in Peter Cheyney's novels, some of us were even tempted to stir things up and make things happen in the hope of finding a solution to the drab outlook for the patient. When the sulfones came, the marked increase in the incidence of lepra reactions we tended to interpret as a support for the idea of the beneficial nature of those conditions. Here was an effective drug, and here were more numerous reactions than ever before, so surely they must be good! But it is not necessarily so.

Clinically we find the lepra reactions dangerous to the patients and obstructive to the even course of the treatment, and it is probably safer to regard the sulfones as defective in this one respect. Furthermore, there is quite a lot of evidence that patients who have no reactions reach bacteriologic negativity and resolution of lesions, with least secondary damage, quite as well as the stormy ones and in many cases quicker and more surely. The even absorption of the specified drug seems much the most important factor in the quicker and surer "arrest" of the disease.

That this is so is hinted by the effect of the newer drug DPT (thiourea or SU 1906, now named Ciba 1906). With this drug lepra reactions are less than with sulfones, but bacteriologic negativity is attained steadily and surely, and tissue damage is minimal. Also, in bad cases of persistent lepra reactions, latterly some of us have been using corticosteroids to abolish the lepra reactions, so as to be able to continue steadily with DDS treatment. The principle of obtaining a steady absorption of the specific drug is I think paramount, and because lepra reactions interfere with this we are driven to put them on the "bad" side of the ledger.

In lepromatous leprosy the forms of reaction that occur include that with the conspicuous erythema nodosum manifestations, associated in its severe form with fever, anthralgia, neuritis, and glandular, ocular, and orchitic complications. Any form of activation or reactivation of lesions may occur in a limited way, and acute leprotic neuritis is a serious form which can occur occasionally as a conspicuous presenting symptom.