The Management of Reaction.

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A CASE of lepra reaction may present symptoms so insignificant from the point of view of the patient's comfort that little attention is required outside a temporary stoppage of specific treatment. On the other hand the condition may be so severe that prolonged hospitalisation is essential. Every case of reaction is essentially a case of leprotic instability which may be of good or evil import. It is necessary, therefore, by careful enquiry and examination to elicit the casual factors in this disturbance of the symbiosis of tissue and bacillus. A further reason for close observation is that in a large number of cases improper management of the case will frustrate the effects of any specific treatment. Unfortunately it must also be admitted that in hospitals where modern facilities and drugs are not available, it tends to be assumed that nothing can be done for reaction. In such cases reaction tends to be regarded simply as an Act of God and the lepers' enemies—deplorable possibly, but not calling for active intervention. As it is of definite value to pool our experiences of leprosy work apart from specific accounts of drugs and statistics, it may be of interest to outline the general methods of management of a case of reaction as they exist in Sungei Buloh.

As far as possible even mild cases of reaction are treated in hospital, and preliminary stress is laid on careful enquiry and examination to elicit the precipitating factor. Workers of greater experience than myself will agree that it is unfortunately necessary to point out that a full clinical re-examination of the patient is essential and that such an examination cannot be conducted with rubber gloves on.

In Sungei Buloh the vast majority of cases are precipitated by one or other of the following causes:—

1. Over dosage, over prolonged treatment or abrupt cessation of treatment with hydnocarpus derivatives.
2. Concurrent disease. In the last year over 60% of patients who developed reaction had a positive Wasserman and Kahn. Mild helminthic infections appear to be a common cause. Chronic sepsis is one of the most frequent precipitating factors here.
3. Constipation.
4. Most Chinese and Malays, and many Indians attribute reaction to certain articles of diet. Prawns, shell-fish, ducks eggs, hot curries, snakes flesh, the flesh of an old fowl and bamboo shoots are the most frequently indicted. Possibly some of these are merely post-hoc impressions, others may be allergic.
5. Drug reactions. The effect of potassium iodide, of course, is well known. Patients, however, who supplement their legitimate treatment with Chinese or Ayurvedic medicines or Malay jungle-herbs frequently develop a severe type of reaction. It is difficult to elicit a history in these cases.

6. Emotional Stress. Among women domestic strife before or during menstruation, the death of relatives, worry over debts or infidelities, are not infrequent precipitants of reaction.

Onset. — Cutaneous reaction begins as a rule here with a few days of mild localised nerve pain followed by the appearance of one or two isolated spots. These spots may (a) die away in abortive cases, (b) coalesce into spreading tuberculoid lesions, (c) become more or less generalised with fever as in the typical reaction case.

An interesting feature at this point and one that is sometimes of diagnostic value, is the absence of urinary calcium in about 20% of cases. As the condition improves calcium again appears in the urine. This is not due to any calcium deficiency but to an alteration in the mechanism of phosphatic and calcium excretion. The serum calcium in uncomplicated reaction is within normal limits. The test is very simple. To a test-tube of clear acid urine add a few grains of ammonium oxalate. If the normal calcium is present the urine turns cloudy owing to the formation of insoluble calcium oxalate. If the urine remains clear the patient is on the reaction threshold. By this means it is sometimes possible to detect a reaction before the spots appear. It should be remembered, of course, that the test is not specific and only applies to a limited number of cases. Sometimes, however, it is very useful.

A typical reaction here tends to fall into three stages which require different management. There is a first stage with more or less continuous but irregular fever and with pain and tenderness of the rose spots. In the second stage the temperature tends to be subnormal in the morning, rising to 100 deg. or 101 deg. F. in the evening. The rose spots may now present the appearance of purulent superficial blebs, which are really rich concentrates of mycobacterium leprae and very useful for demonstration slides. There may be a difficult third stage with little or occasional fever, but marked by bone pains, joint pains, and increasing stiffness. The process may be aborted by lysis or crisis at any point.

During the first stage the patient is confined to bed on "absolute" rest and given a saline purge. The sedimentation test is over fifty—if not, the case is much more likely to be rapidly spreading tuberculoid leprosy. The
patient is kept on a diet of bread, milk, eggs and fruit. The
diet is of great importance, as treatment frequently fails
because the patient is eating extraneous matter supplied
by friends and relatives. In a series of cases of reaction
treated with mercurochrome some time ago, it was found
that while a number of dramatic recoveries were obtained
in the male wards no single case appeared to be deriving
benefit in the female section. It was found that among the
females there was a regular custom of friends bringing in
little dishes which they considered tasty or "cooling." When
this practice was stopped the same percentage of
recoveries was obtained as in the male wards. In any case
of obstinate reaction therefore a rigid supervision of diet
may be found to be of real help.

At this stage the question sometimes arises as to whether
the reaction itself or the precipitating factor should be
treated first. Sometimes the wealth of material elicited is
embarrassing. In a recent case a young Chinese woman
developed reaction after a violent quarrel with a neighbour.
On examination, she was found to have gross pyorrhoea, a
two-finger spleen, an helminthic infection, a retroverted
uterus and a positive Wassermann. Except in cases where
the probable precipitating factor is easily removed, I think
it better to treat the reaction first. Where the reaction
goes on for three weeks without responding to specific treat­
ment the precipitating factor is dealt with in spite of the
fact that this may cause a temporary exacerbation of the
reaction.

A further feature of this first stage is the occasional
appearance of a double peak in the temperature chart
within twenty-four hours. This is similar to the double rise
seen in kala-azar and S.T. malaria.

During the second stage of swinging temperature the
patient may complain of feeling cold and may require an
extra blanket. During this stage as well as in the first,
plenty of Imperial drink seems to help the patient. We
have found it advisable to treat the skin with an oily or
glycerine emulsion as soon as the tenderness of the spots
has subsided sufficiently to allow its application. The
purulent blebs and broken sores are best cleaned with
eusol or chloramine T. Sores on the back are covered with
patches of gauze sealed round the edge with collodion.
Calamine or dusting powders are unsuitable agents for
reaction sores as they form a crust under which the pus
accumulates. An occasional application of antiphlogistine
is sometimes helpful in those cases where the sores tunnel
in the superficial fascia. In the third stage of post-reaction pain the patient is
given full diet usually with the addition of liver soup. The important part of the management at this point is to
ensure free and regular exercise of the smaller joints to
prevent stiffening. With children, jigsaw puzzles and
plasticene are useful for this purpose. Sleeplessness, owing
to aching of bones and joints, pains along the leg veins or
chronic malaise, may cause difficulty. An evening round is
often helpful as the patient can frequently get a good night’s
sleep after a little suitable “therapeutic talk.” We have
found Dovers powder useful so long as the patient does not
get drug-minded.

Treatment with hydnocarpus derivatives is not resumed
for a full month after the reaction has subsided. In cases
where the reaction has subsided, but where prolonged treat­
ment for the precipitating factor is still necessary, no further
leprosy treatment is given till this has been removed.

Curability and Relapse in Leprosy.
Kensuke Mitsuda.

INTRODUCTION.

Dr. COCHRANE asked me to comment upon Dr. Rose’s
work “The Curability of Leprosy.” Owing to the
delay in the arrival of his letter, and also to the
confusion occasioned by the severe tidal wave at Osaka,
which swept away Sotojima Leprosarium, resulting in the
death of one hundred and seventy of the inmates, this
contribution has been delayed.*

HOW TO DISCUSS “CURABILITY.”

First of all, we must understand correctly the classifica­
tion of leprosy before discussing its curability. Many
workers have been misled owing to insufficient under­
standing of the classification of leprosy. The Manila
Conference classified leprosy as neural and cutaneous.
Neural consists of the macular type (we include maculo­
tuberculoid) and neural type, while cutaneous signifies the
nodular type of previous classifications.† Usually leprosy,
as seen in Japan, begins in the macular type and advances
to the more serious stage of neural leprosy, and some years
later it passes into the cutaneous, nodular type.

* We hope to give further details of this very regrettable catastrophe at a
later date—Editor.
† The Manila classification of cutaneous leprosy included “all cases showing
leprotic lesions in the skin” and therefore was not confined solely to the
nodular type—Editor.