

Treatment of Nerve Reaction.

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THERE is perhaps no problem in the therapeutics of leprosy so perplexing as the treatment of lepra-reaction. In this article we do not wish to consider the question of treatment in general, but merely one of the accompaniments of the reaction, namely, neuritis. It may or may not be accompanied by fever or thickness of nerve. In severe cases it may terminate in nerve abscess.

The pathology of nerve infection in leprosy is sufficiently well known as to need no description, but from the clinical aspects we can roughly divide the cases into two classes.

(i) Destruction of the nerve. This type of case naturally is not amenable to treatment, though palliative treatment may benefit the general conditions of the muscles, or prevent total destruction of the nerve where the damage is only partial.

(ii) Infection of the nerve without destruction of its essential structures. This is the type of case which should respond to treatment, if treatment is considered as of any avail. We can divide this class into three sub-divisions according to signs and symptoms, and the following division fits in quite well, according to the type of treatment and the response to that treatment.

(a) Acute type of reaction : The patient feels ill, may or may not have temperature, the affected nerve or nerves are acutely painful and tender. The affected nerves are thickened though often not markedly so. The condition is an acute inflammatory one and ends in resolution or, in very severe cases, in abscess formation.

(b) The sub-acute type : The signs and symptoms are similar to the acute type, though less severe in onset and course.

(c) Chronic type : This usually occurs in late nerve type as the result of secondary changes taking place in the nerve tissue, resulting in destruction of the nerve. The nerve is felt as a thick fibrous cord and is tender on pressure. There is pain probably trophic in origin, very persistent, usually afebrile. This pain is probably due to the pressure of the contracting fibrous tissue in the nerve sheath.

These types are well known to leprosy workers and are common in leprosy hospitals. The treatment may be along two lines :—

(1) Drugs. (2) Diathermy.

We will not discuss the merits of diathermy here, though

all cases here, at some stage, are under that line of treatment. Suffice it to say that according to our experience diathermy is definitely contra-indicated in the acute type of nerve reaction, as it aggravates the condition. The result in the other types we hope to be able to record on some future occasion, nor need we discuss in detail the various drugs which are given during the acute stage to bring relief, though we should like to describe one form of drug treatment which has proved very beneficial, namely, intradermal injections along the course of the nerve. One to 4 c.c. of hydnocarpus oil, or its esters, are injected intradermally along the course of the nerve, the injected sites being 6 to 10 mm. apart. The same is repeated three or four days later, if pain and tenderness are still present, though in the majority of cases improvement is marked. The drug is never injected into the nerve. All the cases in the series were males.

The following Tables show the results in cases :—

TABLE I.

(1) No.	(2) Age	(3) Nerve	(4) Type	(5) Thickening	(6) No. of Injections	(7) Result	(8) Period without recurrence of symptoms up-to-date
1	30	L.U.	A.	Slight	2	Good	7 months
2	25	R.U.	A.	"	2	"	5 "
3	25	L.U.	A.	Moderate	1	"	5 "
4	28	R.U.	S.A.	Slight	2	"	2 "
5	30	R.U.	A.	No thickening	2	"	3 "
6	40	R.U.	A.	Slight	2	"	5 "
7	20	R.U.	A.	"	2	"	2 "
8	25	R.U.	A.	"	2	"	2 "
9	30	L.U.	C.	Moderate	2	"	2 "
10	23	L.U.	S.A.	Slight	2	"	3 "
11	30	R.U.	S.A.	"	2	"	2 "
12	35	R.U.	C.	Moderate	3	"	4 "
13	22	R.U.	C.	"	2	"	6 "
14	20	R.U.	C.	"	2	"	4 "
15	30	L.U.	A.	No thickening	2	"	1½ "
16	30	L.U.	A.	"	3	"	3 "
17	25	L.U.	C.	Moderate	2	"	2 "
18	23	R.U.	A.	Slight	4	"	5 "
19	30	R.U.	C.	Moderate	3	"	2 "
20	30	R.U.	C.	Slight	3	"	1½ "
21	35	R.U.	A.	Moderate	2	"	3 "
22	18	L.A. &	A.	Slight	1	"	2 "
23	28	R.U.	C.	Moderate	2	"	1½ "
24	28	L.U.	C.	"	4	"	6 "

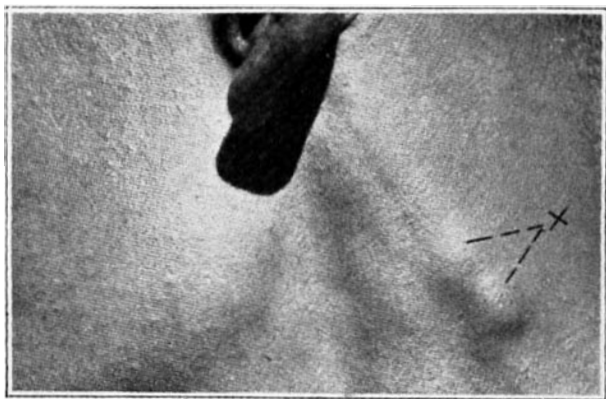
Nerve effected : L.U. = Left Ulnar.
R.U. = Right Ulnar.
L.A. = Left Auricular.

Type : A. = Acute.
S.A. = Sub-acute.
C. = Chronic.

N.B.—The number of injections in column (6) indicates how many injections were required to bring complete relief with cessation of pain and tenderness ;
The last column, (No. 8), indicates the duration of time, from the date of last injection up to the present date, during which there has been no recurrence.

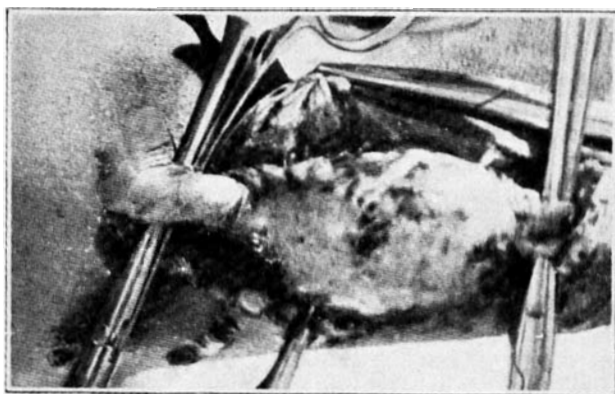


LEPERS' HOME, SPANISH TOWN, JAMAICA,
SHOWING GENERAL VIEWS OF WARDS.



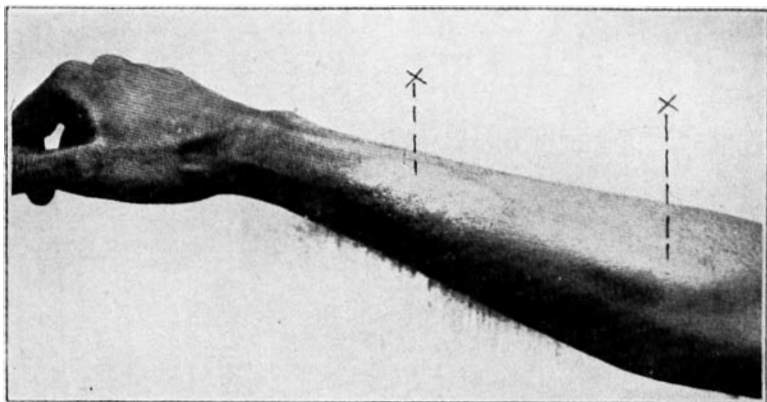
Double Abscess in the Great Auricular Nerve.

The tip of the earlobe and its shadow are in the upper part of the picture.
(Reproduced from "INTERNATIONAL JOURNAL OF LEPROSY," Vol. 2, No. 3, 1934).



Abscess of Ulnar Nerve exposed at operation.

The encapsulated abscess is seen in the middle, with the thickened
nerve at each end.
(Reproduced from "INTERNATIONAL JOURNAL OF LEPROSY," Vol. 2, No. 3, 1934).



Abscess in Cutaneous Nerve Supplying Macule.

(Reproduced from "INTERNATIONAL JOURNAL OF LEPROSY," Vol. 2, No. 3, 1934).

TABLE II.

1.	Number of cases treated ...	...	...	...	...	24
2.	Types of cases treated :—					
	Acute ...	...	...	...	...	12
	Sub-acute ...	...	...	...	...	3
	Chronic ...	...	...	...	...	9
3.	Number of nerves thickened either slightly or moderately					21
4.	Number of nerves without thickening ...					3
5.	Number of cases in which thickening of nerve is reduced slightly or moderately ...					12
6.	The average dose of drug injected each time ...					2 c.c.
7.	The total number of cases free from symptoms of pain and tenderness ...					24

Conclusion :—

1. Intradermal injections of hydnocarpus oil or its esters will give more beneficial and satisfactory results in relieving pain and tenderness in nerve reaction than other drugs and local applications in any stage.

2. The thickening of the nerve may or may not be reduced.

3. The length and course of treatment is less.

4. The recurrence of reaction is so far nil in all cases and the average time of interval without recurrence is so far roughly three months on average up-to-date.