

HORWITZ (O.)

A CLINICAL INVESTIGATION

TO DETERMINE THE VALUE OF

CORROSIVE SUBLIMATE AND THE GRAY OIL ADMIN-
ISTERED HYPODERMICALLY

IN THE

TREATMENT OF SYPHILIS.

BY

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A CLINICAL INVESTIGATION TO DETERMINE
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CALLY IN THE TREATMENT OF SYPHILIS.

THE experience of many investigators is adverse to the employment of the insoluble salts of mercury hypodermically.

The general belief is that the use of these salts results in great pain and produces callosities, abscesses, and stomatitis. Our experience corresponding with those of other observers, we some time since determined to enter upon a clinical investigation to ascertain, if possible, the value of both corrosive sublimate and the gray oil in the hypodermic treatment of syphilis.

These remedies, it is believed, we have fairly and fully tried. The result is here recounted, that all may judge of the value of our observations.

The first experiments were made with a view to ascertain whether the disease could be aborted after the method suggested by Bronson, who has recently advised hypodermic in-



jections of mercurials into the chancre and the indurated lymphatic glands in its neighborhood. His views are based upon the theory that the initial lesion is the storehouse of the syphilitic poison, or the point during the primary stage from whence the disease is disseminated; and that the mercurial being brought into direct contact with the micro-organism which causes syphilis, necessarily exerts its germicidal influence, destroys it, and thus aborts the disease.

Ten cases were selected and placed under treatment. A quarter of a grain of corrosive sublimate was administered daily to each hypodermically until thirty injections had been made. It was possible to insert but three or four injections at the site of the chancre; the remainder were introduced into the indurated glands about the groin. These injections were attended with slight pain and more or less œdema of the penis.

A suppurating bubo made its appearance in but one instance. Whether or not this was caused by the treatment could not be determined, as a certain proportion of syphilitic cases will always be accompanied by a complication of the kind.

In nine of the cases the symptoms were delayed, and did not appear for a period varying from between two and nine months after all treatment had been discontinued. The manifestations were very mild, taking on the form principally of mucous patches, slight alopecia, and macular eruptions. In the tenth case, although over one year has elapsed since the disease was contracted, no untoward symptoms have appeared.

With this patient the doubt as to a correct diagnosis must be taken into account, for the origin of the disorder might not have been syphilitic.

As far as can be determined, this method of treatment simply delays the appearance and mitigates the symptoms of the disease, rendering it difficult to give a correct prognosis, and leaving it uncertain in the mind of the practitioner how long treatment should be continued.

Sixty cases of secondary syphilis were selected for the purpose of investigation and to determine as far as practicable the value of this method of routine treatment. The quantity of corrosive sublimate employed was a quarter of a grain to each injection. Each patient received thirty injections, making, in all, eighteen hundred hypodermic insertions.

Fifteen patients were inmates of the Philadelphia Hospital, thirty of the Jefferson Medical College Hospital, and fifteen were selected from private practice.

The cases that were treated at the Philadelphia Hospital quitted the establishment within a month and could not be followed; of those treated at the Jefferson Hospital, nine have not been heard from since being discharged; of the remaining twenty-one still under observation, eleven have relapsed, and have been placed on other forms of treatment. Of the fifteen private cases, four have not been heard from since they have been discharged; and of the eleven remaining cases, three have relapsed, and eight up to the present time remain in good health. The longest period that has elapsed since the treatment of the last case is six months. Most of these relapses occurred within from four to

eight weeks after the injections were discontinued. None of the patients made any special complaint of pain produced by the injection ; in no instance was an abscess formed, nor was there induration about the seat of the injection. When relapses took place, several of the patients were desirous of returning to the use of the hypodermics. In all the rapid disappearance of the symptoms was remarkable. In most cases, as a rule, constipation prevailed, and the employment of salines became necessary. In no instance was salivation produced.

So that in sixty patients on whom the hypodermic method had been employed, on each of whom thirty injections were administered, twenty-eight disappeared and are unaccounted for ; the remaining thirty-two have been carefully watched.

Of this number, fifteen relapsed within eight weeks after treatment had been discontinued, leaving seventeen free from disease. The longest period that has passed since any of these has received treatment is ten months.

The advocates of this method advise that, when recurrence takes place, injections be resumed, reducing the dose, however, to one-sixth of a grain of corrosive sublimate, returning to the mercurial whenever the disease reappears, and reducing the amount of the drug on each occasion.

This rule was not followed in the relapsing cases here referred to after thirty injections had been used without good results. It appeared to us merely a symptomatic method of treating the disease, which is generally fraught with so much danger, tertiary lesions usually following.

The supporters of the routine method of treatment by hypodermic injections of corrosive sublimate agree that about forty per cent. of the cases relapse. It will be observed that with us well-nigh fifty per cent. recurred, and that the disease returned in a remarkably short time after treatment had been discontinued, the longest period of exemption being eight weeks.

In order to determine the value of the hypodermic injections, when used in conjunction with other methods, nineteen cases were submitted to treatment. In five of these the lesions were situated upon the face, and were a source of great annoyance; hypodermics of corrosive sublimate were administered, when the eruptions disappeared with remarkable rapidity. Mercury was then administered by the mouth.

In fourteen cases of severe syphilitic poison a systematic course of treatment was pursued. For a period of four months the mercurial was administered by the mouth, and instead of making use of inunctions of mercury for two weeks, which is the usual method, injections of a sixth of a grain of bichloride were given daily for that length of time, when these were discontinued and the administration of the drug by the mouth resumed.

In the case of a married man who contracted syphilis in the absence of his wife during the summer, and who expected her return within three weeks, and who was most anxious that no symptom of the disease should be present on her return home, eighteen hypodermics were administered, with the result that at the end of twenty-one days he was perfectly free from all manifestations.

In two cases of iritis fifteen injections of corrosive sublimate were administered in each case, the patients taking in conjunction ten grains of the iodide of potassium three times daily, when the symptoms rapidly disappeared.

In a rare case of gumma of the conjunctiva, occurring in the clinical service of Professor Thompson, eight hypodermics caused its disappearance, when treatment was continued by the mouth.

In four cases of relapsing syphilis hypodermics of gray oil were given once a week for six weeks, and although nearly a year has elapsed since treatment has been discontinued, these patients, who were constantly suffering from manifestations of the disease, have remained free from any symptoms. With these cases all other methods heretofore employed had failed.

In one case of gumma of the palate the pain produced by the corrosive sublimate was so severe that the injections had to be discontinued after two administrations, when other means were resorted to.

In three women who were inmates of the venereal ward of the Philadelphia Hospital, and who had been on a continuous course of treatment by the mouth before the hypodermic method was employed, slight ulceration of the gums was produced, and the injections were necessarily discontinued.

In one case of gumma of the brain fifteen hypodermics of the gray oil, in conjunction with small doses of iodide of potassium, effected a rapid cure.

In one case of syphilitic insanity six hypodermics of gray oil were given with marked improvement.

In two cases of syphilitic locomotor ataxy the staggering gait, the great pain, and the vertigo have almost entirely disappeared, and there has been a progressive increase of weight and strength; both patients, who were unable to work when first placed under treatment, have returned to their respective occupations. The gray oil was likewise employed in twelve cases of obstinate skin-eruptions which refused to yield to other methods of treatment.

In eighteen cases of secondary syphilis, which had shown constant tendency to relapse during a course of two years' treatment, and in one case of malignant syphilis, marked improvement was manifested by the treatment here recommended.

The following table exhibits the number and conditions of the cases and the number of hypodermics of corrosive sublimate administered in each instance:

No. of Cases.	Conditions.	No. of Hypodermics.
10	Attempt to abort the disease	300
60	Routine treatment	1800
6	Obstinate skin-eruptions.....	180
5	Eruptions on the face	110
14	Conjunction with systematic treatment.....	196
1	Married man	18
2	Iritis.....	30
1	Gumma of conjunctiva.....	8
99		2642

A second table is submitted, exhibiting the conditions of the patients and the number of

hypodermics of gray oil administered in a given number of cases :

No. of Cases.	Conditions.	No. of Hypodermics.
2	Gumma of the brain	12
1	Insanity.....	6
2	Locomotor ataxy.....	12
4	Relapsing syphilis.....	24
12	Obstinate skin-eruptions.....	72
18	Termination two years' course treatment	108
1	Malignant syphilis.....	6
40		240

From a careful study of the clinical cases just cited the following deductions may be drawn :

1. Hypodermic medication will not abort the disease.
2. That it should not be employed as a routine method of treatment.
3. That the production of abscesses or of pytalism by this method must be very rare.
4. Injections of corrosive sublimate give rise to trifling pain, but not to callosities.
5. The gray oil gives rise to slight pain and always produces induration.
6. The gray oil employed in this manner is more dangerous than corrosive sublimate, and when administered the patient should be carefully watched.
7. In suitable cases, when properly employed, these remedies are among the strongest weapons possessed by the profession wherewith to fight the disease.

8. When employing corrosive sublimate, a quarter of a grain should be administered with each injection, provided the patient has not previously been submitted to treatment; if mercurials have already been employed by the mouth, the quantity employed should be one-sixth of a grain.

9. Hypodermic injections of corrosive sublimate are of undoubted value when the lesions appear upon the face and a rapid impression is desired; likewise when some important structure, as the eye or brain, is attacked.

Mercurials may be employed hypodermically as a substitute for inunctions in a systematic course of treatment.

They may be used with advantage when time is an object.

In cases of relapsing syphilis where other methods have failed, injections have completely controlled the outbreak.

In syphilitic diseases of the nervous system their use generally produces most satisfactory results.

They are frequently beneficial in those forms of eruption that have proved rebellious to other treatment.

10. It is well to employ the gray oil in cases of severe secondary syphilis where there is evidence of a tendency to relapse during the course of a two years' treatment, winding up with a weekly administration of a hypodermic for the space of six weeks. The patient should then be placed upon small doses of iodide of potassium for the period of three months. This treatment is valuable in the obstinate relapsing tertiary variety of the disease, and has proved more potent in our hands than any other

method. In nervous syphilis it is far superior to inunctions.

Finally.—This mode of treatment is unhesitatingly recommended to the profession, under the conditions already laid down, as the most reliable and active that can be employed.

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