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Comparative Value of Mercury and the  
Iodides in Treatment of Syphilis.

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*Read in the Section of Dermatology and Syphilology, at the Forty-  
first Annual Meeting of the American Medical Association,  
at Nashville, Tenn., May, 1890.*

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Reprinted from the "Journal of the American Medical  
Association," December 20, 1890.



CHICAGO:  
PRINTED AT THE OFFICE OF THE ASSOCIATION  
1890.



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"However long mercury has been employed as an antisymphilitic, general assent has not yet been gained by any doctrine concerning the utility of its administration, the results which it may produce in syphilitic patients, the period at which its administration should be begun and how long it is to be continued." So wrote Zeissl.

Burenspring says that mercury exercises a curative action on all syphilitic lesions and that it rapidly causes disappearance of the symptoms. He also says the further development of the process is not prevented by mercury: that the disease is simply protracted, and that by reason of this, tertiary forms develop and the disease becomes incurable. He also says: "Tertiary syphilis is not mercurialism, it is always syphilis, but modified; syphilis in a system changed by mercury." He says further, that "whatever treatment is adopted, syphilis is a disease which impairs profoundly the entire organism. Cases of rapid recovery are rare. Gradual extinction of the disease is the rule, and may happen after mercurial as well as non-mercurial treatment. The advantage of mercurial treatment is that it rapidly ameliorates the symptoms of the disease and effects their recovery, but this is more than counterbalanced by a double disadvantage. Inasmuch



as it impairs the entire constitution, it favors the development of destructive local forms; making the disease latent, often for months and years, and delays definite recovery. Non-mercurial treatment is often unable to prevent the severe and extensive appearance of the symptoms, particularly at the beginning of the disease, but it offers the great advantage that it never conceals the disease when it is not cured, and accelerates its definitive recovery."

Diday says, "From 1838 to 1860 I systematically dispensed with the use of mercury during the existence of the primary lesion and the first appearance of the secondary symptoms. I used mercury only in exceptional cases, when the nature of the symptoms imperatively demanded it." Finally, since 1860 he has used what is really a mixed treatment. He gives mercury occasionally—where it is needed, and says mercury is unable to destroy the virus of syphilis; and divides his treatment into "opportunist method" and "regular method." By the former he means an effort to assist nature in her constant fight against the intruder. In experimenting on patients afflicted with syphilis he found that those to whom he gave mercury in the primary stage had the secondary manifestations of the disease in forty-three days, the period of secondary incubation was that long; while those who did not use mercury during this period had the secondary manifestations in forty-nine days. And he says that both classes of patients suffered from relapses in exactly the same manner and the same proportion.

H. Zeissl, believing that mercury did not cure syphilis, divided his hospital patients into three classes—those to whom he gave mercury on the first appearance of the secondary eruptions, those to whom iodine was given and those to whom

*nothing* was given. He noted that those patients to whom he gave inunctions of mercury frequently were relieved of the manifestations of the disease in ten to fourteen days. Again, those to whom he gave iodine were relieved in from fourteen days to four to eight weeks; and, lastly, that those patients to whom he gave *nothing* had the eruptions disappear completely in four weeks in some cases, while in others they lasted several months.

Here we have the natural history of syphilis before us. Indeed, we might have expected as much from the fact that syphilis has been treated successfully by almost all the remedies of the pharmacopœa, and from time to time advocates of sarsaparilla, stillinger, burdock, poke roots, berberis aquafolium, cundurango, manaco, hunger cures, purging cures, water cures, etc., have brought them prominently before the profession. Each would have its day; recently the majority of the profession have about discarded all of them and confined themselves to the two "old reliables," mercury and iodine.

H. Zeissl claimed "that the severe gummy syphilides appeared much earlier after the mercurial treatment than after either the iodine or expectant plan, and that relapses are much more frequent and obstinate after the mercurial treatment than after the expectant plan."

He also says that those patients may be counted as cured who, after the disappearance of the earlier eruptions without treatment, have no relapse within one year; that one year's freedom from syphilitic eruptions after the disappearance of the first secondary manifestations, said disappearance being brought about by the expectant plan of treatment—that those patients have been cured. He further says that it is only when the iodine and expectant methods have failed that

mercury should be used. He also says the expectant plan takes longer to cure the symptoms, but that the relapses are less frequent than after the mercurial treatment. That treatment with the iodides is next in efficiency *after* the expectant plan, and that when the symptoms do not yield to either the expectant plan or the iodide treatment, then a small quantity of mercury causes them to rapidly disappear.

Sigmund holds almost the same views, though he has been a most pronounced advocate of mercurial treatment. He says that "science and experience positively favor the view that the proper time for general antisyphilitic treatment is in the second stage of the syphilitic development, and that at this period it should be begun *only* if important organs and systems are involved, or if the nutrition and vigor of the organism suffer seriously. In affections of mild grade and in certain organs, suitable local treatment will suffice even during the second period of the disease." He regards iodine of great value even in the second manifestations of the disease.

E. Finger, of Vienna, agrees with H. Zeissl, and gives iodine in preference to mercury in the condylomatous stage.

Kaposi says: "The more vigorous and persistent the treatment during the first acute stage, the more certainly relapses and a protracted course of the disease are prevented." He believes in the vigorous use of inunctions of mercurial ointment.

Fournier advocates the vigorous mercurial course of treatment continuing over a period of one to three years, mercury for a few weeks or months followed by a period of rest on the "expectant plan."

M. Neisser follows Fournier's plan of treatment and says "the treatment should be chronic." He

gives one "main cure," as he calls it, by inunctions, and follows it by internal administration of some of the milder forms of mercury. His "main cure" is repeated once a year for three years, but he also "attributes unusually severe symptoms to an excessive use of mercury."

Caspary says "the use of mercury is not a matter of indifference;" advises its use during the stage of eruption, but does not advocate its administration during the period of quiescence. He also says, "Vigorous treatment after the manner of Fournier, in the early stages of the disease, delays relapses—but that the relapses are very apt to be severe."

Unna is opposed to the protracted use of mercury in syphilis, and lays all the late manifestations of the disease to unoxidized mercury in the tissues. He also says that some cases of cerebral syphilis in which the patients have difficulty in walking, seem to get worse under administrations of mercury.

Rumpt says, "There are isolated cases of cerebral syphilis in which mercury seems to exert an injurious influence. In a few cases of cerebral syphilis with mild delirium, use of mercury was followed by coma which yielded to the use of iodides" . . . . This I can corroborate from personal experience this last year. A medical man consulted me for what was evidently cerebral syphilis. Under mercurial inunctions his cerebral symptoms got worse, and improved when the mercury was stopped and iodine given.

A gentleman from Texas also came to me with cerebral syphilis. Had had an attack of cerebral apoplexy due to syphilitic disease of the arteries. Under use of mercury he got worse, and I was compelled to stop its use and place him on the iodides alone.

M. Zeissl reports several cases in which he had

used vigorous mercurial inunctions. and in which severe relapses of syphilis followed ; so that now he does not give mercury until he has failed after a ten weeks' trial with iodine, commencing the administration of the iodides only after the secondary eruptions have existed for six to eight weeks. Then, if the iodides fail him, he resorts to mercury, agreeing with the opinion of H. Zeissl, "that it is not the mercury that hurts the patient, but mercury given at improper times." He says that now he continues the iodine course for six months, or at most a year, after the syphilis has disappeared. If relapses occur he again resorts to the iodides—and if the symptoms disappear very slowly, or not at all, he uses mercury.

In contrast with this opinion of M. Zeissl and others, Otis advises the commencement of mercury as soon as the chancre indurates, and urges its protracted and vigorous use. He reports some cases in which the use of the drug was not pushed as vigorously or as early as he thought it ought to have been, where grave tertiary lesions resulted.

Van Buren and Keyes advise the use of mercurial treatment as soon as the diagnosis is made, and urge this as the safest plan for the patient, increasing the mercurial up to point of tolerance then dividing the dose in half, and continuing the smaller dose for a period of one year or more.

My own plan has been to give mercury when the secondary manifestations of the disease appear, and to continue it after the eruption has disappeared for a period of six months, then the so-called mixed treatment for six months, and follow this by a six or twelve months' course of iodides alone. But the longer I live and the more I see of syphilis, the more I am inclined to give iodides, giving mercury when the iodides fail to relieve the case. In all the later manifestations of the disease I use only the iodides.



So we have here syphilographers divided into two groups: one favoring and urging the administration of mercury as soon as a diagnosis is made, and continuing the use of that remedy for long periods of time; the other giving it only when the manifestations of the disease do not yield to the iodides—and then giving it only until the disappearance of the eruptions. The one group laying many of the grave lesions of the later period of syphilis to the fact that mercury was improperly given, both as to time and quantity—the other claiming that these appearances of the disease were due to the fact that not enough mercury was given, or that it was not given in sufficient quantity or not protracted over a sufficiently long period of time.

My own opinion is that they are supplementary one to the other. As I have said before, some of the graver lesions of syphilis seem to get worse under the administration of mercury, and yield rapidly to the iodides. Of course, all of us have seen patients who could not bear the mercurial treatment. Again, there are others in whom the mildest iodine course is followed by very grave symptoms.

In using mercury for syphilis I prefer the ung. hyd. I have found in a very large experience that it produces its effects very promptly, and that it is less liable to disagree with the digestive apparatus than any of the salts of mercury administered internally. In ordering the mercurial I use 1 drachm of the 50 per cent. hyd. ung. rubbed into the skin every night, of course carefully watching its effects, for on the slightest evidence of salivation it must be lowered in quantity or discontinued altogether; occasionally I find a patient who is very greatly depressed by this quantity. In that case I lessen the dose by half and continue it until the manifestations of the

disease have disappeared. Of course this is an inconvenient mode of administration of the remedy, in persons whose occupations take them from home a great deal of the time, and who have not the facilities for warm baths. For this class of patients I order the protoiodide of mercury in  $\frac{1}{4}$  gr. doses, and prefer the gelatine coated pills to those which are sugar coated. In giving the iodides for syphilis one thing is important to bear in mind, and that is, that the dose of 3 to 10 grs. is all a mistake. I commence its administration with 15 grs. and increase it 1 gr. a day until the manifestation which called for it has disappeared, and occasionally I have carried the dose up to 1,000 grs. a day.

Practically speaking, the point I wish to impress upon this body is, that there is no limit to the dose of the iodide save that which is indicated by its effects.

One of the most convenient modes of administering it is in the form of saturated solution: here 1 minim represents 1 gr. of the salt. Of course this should be largely diluted with water before it is given. For the grave forms of nervous syphilis I never give the smaller dose, but at once commence its administration in 50 gr. doses, and have had no reason to regret such a course. The same plan is pursued when a gummy deposit exists in the pharynx and nasal or post-nasal cavity. In both these classes of cases we desire to produce a rapid absorption of the gummy deposit, and so prevent its breaking down, thus protecting the patient from the horrors of such softening.

#### REFERENCES.

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- M. Zeissl.
- Hill and Cooper.
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