TREATMENT OF SYPHILIS BY INUNCTION, IN THE ARMY.

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The very fact that the soldier is under discipline in hospital, at once suggests prospects of success in carrying out the essential elements and details of the treatment of syphilis by inunction.

I find it the best plan to explain carefully to each man before the treatment is begun exactly what it consists of, what his symptoms are, what symptoms are likely to develop and their probable duration, &c., so that he is prepared for each in turn as time goes on. If this is done, it soon becomes apparent that a man shows considerable intelligence and interest in his case, and instead of proving obstructive he becomes a help to the medical attendant. If a man is merely told he must do so and so, and no reason is given, he cannot see the necessity of it all, or why he should be rubbing and his hair made to fall out, whilst the man in the next bed (who is only suffering from a local sore) is merely using iodoform, for he cannot understand the difference in the two cases. It is much the best plan to take the man into one’s confidence, so to speak, and he becomes a help instead of an obstruction. But, firstly, it is necessary to carefully instruct the N.C.O.’s and orderlies as regards the clinical aspects of all cases. They soon become interested, and the carrying out of many details may be confidently left to them.

I leave the actual process of inunction to be performed by the patient himself, under the immediate supervision either of myself, a N.C.O., or a trustworthy orderly. The parts of the body which are available for inunction are five in number, viz., the calves, thighs, chest, back and arms. It is, of course, obvious that a man cannot rub his own back. I therefore omit this part, and thus reduce the parts to four. The back might be included by the assistance of another patient, but I think this inadvisable. The

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1 It is a curious fact that in the lower orders there is frequently a notion that mercury causes the hair to fall out, and I used frequently to be approached by the patient as to the advisability of discontinuing the treatment on this score. He will own that his other signs and symptoms are improving daily, but it sometimes takes a little persuasion to convince him that his alopecia is the result of disease and not treatment.
ointment used consists of unguent. hydrarg. fort., grs. 30; adipis.
benzoat, grs. 25. Packets, each of this amount, are carefully dis­
pensed and supplied to the patient, wrapped in wax paper. It is
important that each packet should contain the exact amount of
the ingredients, as the dose of mercury should never vary. Fur­
thermore, if less lard be used the ointment is too hard and inunction
becomes almost painful, and is apt to produce skin irritation; if too
much is added it becomes a messy process. In private practice
I substitute 10 grains of lanoline for the corresponding amount
of lard; this preparation being more easily absorbed through the
skin.

Before inunction the parts should be thoroughly washed in soap
and water. If this is not done, a certain amount of dirt is rubbed
in and a cutaneous eruption may result. The hands, too, must
be well washed, for the same reason. The inunction should last
twenty minutes. If it has been properly carried out it will be
noticed that the parts gradually become darker, until they are almost
indigo-coloured. It should be seen that more than mere surface
rubbing takes place; fairly strong pressure should be used and the
patient will find that he has twenty minutes' good exercise. As
regards the inunction of the arms, I usually allow half an hour,
as the process of alternately rubbing each arm is necessarily an
interrupted one.

Before commencing the inunction of any part, the patient is
advised, for the sake of cleanliness, to wash, not only the part to be
rubbed, but also that which was rubbed on the previous day.
There is nothing to be gained by leaving the ointment there, for
what remains on the surface after this length of time does not
become absorbed and is practically dirt.

Unless there are very strong reasons it is inadvisable to allow
the process of inunction to be carried out if a patient is remaining
in bed, for the reason that breathing the mercurial vapour which
arises from the skin is deleterious and apt to produce anæmia and
ulcerated gums. Patients should be in the open air as much as
possible. They should walk six miles a day, even if the monotony
of walking up and down a limited space has to be endured. The
diet should be full and unstinted and a daily pint of beer or stout
is generally advisable. No medicine is required, but every means
should be used to keep the man in as healthy and active condition
as circumstances permit. The duration of the course should vary
in accordance with the severity of the case and the patient's capa­
bility of bearing the treatment. For a first course I always pre-
scribe daily rubbings for forty days and insist on that number being completed, even in what appears to be a mild case, and even if the symptoms clear in a fortnight or three weeks, which not infrequently will be found to be the case. The number, in some instances, may be advantageously increased to fifty or sixty. Patients vary so much in their susceptibility to the action of mercury that the treatment has to be varied accordingly. In some, the action of the drug is very sluggish in showing its effects, whilst in others, the way the symptoms clear is truly wonderful. This variance of action is probably more apparent in the effect produced on the primary sore itself. I have noticed cases where a large hard sore will disappear almost entirely in about ten days; whilst in others there is no apparent change in the aspect of the sore until after twenty, or even thirty, rubbings. In the former instance, however, if the treatment is temporarily suspended the sore will reappear with celerity.

Every patient should be weighed before the course of treatment is begun and a weekly record kept of his weight. If he loses weight rapidly and becomes anaemic (as is generally evinced in the first instance by paleness of the bridge of the nose and palpebral conjunctive) the treatment should be stopped for a time—three or four days is generally sufficient—and a tonic administered in the interim. It should be remembered, however, that syphilis itself frequently produces anaemia, and the existence of this condition should be no bar to a course of inunction. Such a case, however, will require careful attention, and a little discrimination will often be needed to distinguish between the anaemia of syphilis and that produced by mercury. Generally speaking, however, such cases are the exception, and I rarely see one which does not steadily improve under a carefully watched course of inunction.

Before the course is begun, an inspection should be made of the mouth. Any old stumps of teeth must be removed, and the man must buy himself a tooth-brush, and be taught to use it three or four times a day. The preparation recommended is Calvert's Carbolic Tooth Powder. It is pleasant to use, antiseptic in properties, and has a distinct effect in hardening the mucous membrane. Each patient must use, every two or three hours, a mouth-wash composed as follows:

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\begin{align*}
\text{B Alum. sulph.} & \quad \ldots \quad \ldots \quad \ldots \\
\text{Liq. plumbi. diacet} & \quad \ldots \quad \ldots \quad \ldots \\
\text{Aquam ad} & \quad \ldots \quad \ldots \quad \ldots \\
\end{align*}
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\[\text{grs. xl.} \quad \text{m. xx.} \quad \text{5viii.}\]

A mouthful should be retained in the mouth at least a minute
before being expectorated. The greatest care should be taken that these precautions against gum ulceration be carried out. It is very rarely that I see a case of ulcerated gums, but, of course, such cases will from time to time occur in patients who are highly susceptible to the action of mercury. I have known many medical men who stop the administration of mercury immediately on the first sign of any gum tenderness; and I remember a well-known text-book in which such precept is laid down. But, provided that other symptoms are absent, such as loss of weight and anaemia, there is no necessity to stop the treatment unless the ulceration becomes excessive.

ULcerATION OF THE GUMS—TREATMENT.

I now come to the subject of ulcerated gums and its treatment. The first sign almost invariably occurs at the same spot, viz., just behind the two upper incisor teeth. As soon as the patient complains of the least tenderness here the surgeon should be on his guard. A daily inspection should be made. If it be found that the ulceration be increasing and is becoming general, and anaemia and loss of weight are concurrent, it may be advisable to discontinue the treatment for a few days. The well-known remedy, chlorate of potash, should be freely exhibited. Ten or fifteen grains should be administered in an ounce and a half of water five or six times a day. Local treatment must be actively employed, and this, if properly carried out, effects immediate relief. This consists in cauterising the ulcerated surface, and the choice of a cauterising agent must be considered. Nitrate of silver (20 or 30 grains to the ounce of distilled water) is effectual, but it has the disadvantage of blackening the teeth, and on that account I never use it. The most effectual agent is a 40 per cent. solution of chloride of zinc. This possesses the disadvantage of being extremely painful for about half an hour after application. To obviate this, a 10 per cent. solution of cocaine should be used as an adjunct. The method employed is as follows: A small piece of wood should be thinned and sharpened at the point, and the point then covered with a little absorbent wool. The ulcerated edges of the gums are then carefully wiped over with this, and the mouth well rinsed out. The chloride of zinc solution should then be applied with the wooden stick and absorbent wool (the wool being changed, of course, as often as is necessary) and the ulcerated edges thoroughly cauterised. The point of the instrument should be pushed well
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down to the alveolar extremity of the gums, care being taken not to touch any sound surface. The parts should be brushed over with the cocaine solution, both immediately before and after the application. The effect of this treatment is almost magical. I have seen a patient in such pain and discomfort that he could touch nothing solid in the way of food; even the contact of the buccal mucous membrane against the ulcerated surface causing suffering. In less than an hour after the caustic application all discomfort has entirely disappeared, and he has been able to eat a solid meal as easily as he ever did in his life. The application may be renewed in two days’ time if required, which it seldom is. In slighter cases undiluted aromatic sulphuric acid may be used instead of zinc chloride. This is the dentist’s usual remedy for pyorrhœa alveolaris, and is the only other agent I ever use. It is almost non-painful and very effectual.

When all syphilitic symptoms have disappeared the patient may be sent to his duty, but it is advisable that he be kept in hospital for a week after his course is finished, as otherwise he may visit the canteen too much, and it is of importance that while the mercury is fresh in his system he shall abstain from all unhealthy practices.

It is also wise to keep an eye on the patient by advising him to attend for inspection at intervals of two or three weeks. I keep a book with entries of the various dates of patients’ attendances, and the state of their health, any slight manifestations of the disease, such as ulceration of the fauces or tongue, being noted. A great deal of good may, at this time, be done by local treatment. Slight sore throats only require mild astringents, or chlorate of potash gargle. Abrasions on the tongue are best treated by a solution of chromic acid (10 grains to the ounce), or touched with a nitrate of silver solution (30 grains to the ounce), or even with the solid stick, every three or four days. And in connection with this subject, it may not here be out of place to add that mucous patches on the tongue with raised epithelium are best treated by the application of pure acid nitrate of mercury, especially those in the late secondary stage. Of all manifestations of early syphilis, the sore tongue is perhaps the most intractable, especially in smokers, or chewers of tobacco, and it will generally be found that all treatment is rendered futile so long as these habits are persisted in. Although I find cases of what may be called “pyorrhœa mercurialis,” i.e., general gum ulceration, extremely rare, I occasionally see cases of mercurial ulceration of the fauces.
and buccal mucous membrane; and it is sometimes difficult to distinguish mercurial from syphilitic ulceration, especially as the two may be intermingled. The commonest place for the former is a spot immediately posterior to the lower back molar or wisdom teeth, or the mucous membrane in the vicinity. Unless this ulceration becomes excessive there is no necessity to stop treatment, and it will not usually get any worse if treated locally by chromic acid or nitrate of silver. But I have often seen what is really mercurial ulceration mistaken for syphilitic; so that unless one is on one's guard, the mercury may be pushed too far, when of course the ulceration increases. In case of doubt it is well to stop the inunction for three or four days, and to administer large doses of chlorate of potash. All doubts will then be set at rest.

After three to six months of watching the patient (during which time he is generally available for duty) it is advisable to order another course of inunction, even if there are little or no symptoms. For this, admission to hospital is not as a rule necessary. The patient can attend at hospital at some stated convenient hour, and perform his daily inunction, a record of any such course of treatment being always entered in the Medical History Sheet. I see every man who has had syphilis from time to time for three years. It very rarely happens that a man tries to escape my vigilance, and I find that nearly all my patients are only too glad to pay me a visit and report progress; whilst constantly a man, on his own initiative, will suggest that he should go through another course of treatment, as he is anxious to get a clean bill of health. This I am careful not to give under three years as a rule, and I calculated that during this period a patient undergoes on the average 160 to 170 inunctions in about six courses of treatment.

Medical officers will often say they cannot see any advantage in the treatment by inunction over other forms of treatment, but when they are asked for details of their system there are none to reveal. No trouble is taken as to details, and there is no real system. The writer once took over some wards from another medical officer, who said he always treated his patients by inunction, and found that his plan was to put a large pot of ung. hydrarg. fort. in the ward, and patients were told to help themselves daily to a portion the size of a nut, and rub it into one or other groin, the patients being all kept in bed. It may easily be imagined that, the size of a nut being anything between a cocoanut and a small filbert, the patients' ideas varied as to the amount
they ought to use, the variation of their ideas being also manifest as to the length of time the ointment should be rubbed in. Some simply spread it on the skin of the groin and left it there. Some rubbed for five minutes, others for an hour or more. All were anaemic and unhealthy looking, and it was surprising how quickly they all improved and convalesced under the system advocated above. Some medical officers appear to have no form of treatment for syphilis except "mist. hydrarg." (liq. hydrarg. perchlor., 3i. or 3ss., with 5 or 10 grains of iodide of potash) and chlorate of potash or alum gargle. This they prescribe in unvarying doses at any stage of the disease, and most of them keep their patients in bed.

Iodide of potash is a drug which the writer hardly ever uses during the first two years of the disease. At this period its anti-syphilitic effect is small and it possesses a distinctly lowering action; whilst liq. hydrarg. perchlor. generally succeeds in upsetting the digestion, especially during enforced inaction in hospital. Of other forms of treatment, pil. hydrarg. or pil. hydrarg. c. cret. may occasionally be useful; the latter if there is much glandular enlargement, but in neither instance is the result likely to equal, and certainly not to surpass, that obtained by a properly pursued course of inunction. Other preparations of mercury, such as the biniodide, may appear adapted to some particular manifestations of syphilis; whilst in the very late stages of the disease, occurring years after the initial lesion, iodide of potash or arsenic only may be necessary. These cases, however, are not now under consideration, as they seldom occur in military practice under the present system of service.

For several months I made trial of treatment by subcutaneous injection, and though some cases appeared to improve, the method proved too uncertain in results, and I gave it up.

I claim that inunction is better adapted for the treatment of syphilis in military hospitals than any other form of treatment, with this proviso, that it be carried out with care and strict attention to detail. Without proper care it is best left alone. Dr. Schumacher, of Aix-la-Chapelle, once said, to me: "At Aix our aim is not only to kill the disease but to bury it." After fifteen years' experience of the system advocated above, I am convinced that inunction is most likely to bring about this desirable result.