SYPHILIS: ITS PREVALENCE, NATURE, AND TREATMENT.

Read in the Section of Surgery.

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I WISH to invite your attention to a few points relating to syphilis, which appear to me to be worthy of a somewhat fuller consideration than is generally accorded to them. The interest which attaches to the disease has enormously increased since the profession began to learn that no important organ of the body is exempt from its ravages; and that manifold affections of the nervous system, and of the abdominal and thoracic viscera, of the causation of which we were once entirely ignorant, are due to the far-reaching poison of syphilis. The enormous prevalence of the disease supplies another reason which, I think, justifies me in addressing you on this apparently commonplace topic. The threatened approach of cholera, or of an epidemic of typhoid, causes the gravest alarm; the central Government and local authorities put forth all their efforts to prevent the approach of the pestilence, or to stamp it out as soon as it has gained a footing on our shores, and yet at the present day we have in England a far more insidious and dangerous foe, destroying the health of enormous numbers of our population, and allowed to carry on its deadly work practically unchecked.

Recent legislation has practically blotted out from the Statute Book the most valuable provisions of those Acts which, to use the words of the Judge Advocate-General, "have done much to check the progress and alleviate the severity of one of the most terrible scourges of humanity, and have also done something to mitigate one of the most baneful as well as the most prevalent vices of modern society."

However, my intention is not to discuss the Contagious Diseases Acts, though I have a very strong opinion in favour of enforcing them in their integrity, and of extending the sphere of their operations.

Before proceeding to speak of the treatment of syphilis, I would say a few words on the so-called unity and duality theories of the disease. The question to be solved is this: is the virus of the soft sore necessarily connected with syphilis? In my opinion, this question must be answered in the negative; and I go a step further, for I believe that soft sores have no peculiar virus in their secretion, that they may arise *de novo*, and that such a mode of origin is not uncommon. Let me explain this position a little more clearly. The supporters of the unity theory regard every chancre, whether its base be hard or soft, as connected with syphilis. If this be so, it may well be asked, why are not soft sores invariably followed by constitutional symptoms? The principal advocates of the duality theory assert that the local sore possesses a distinct special virus of its own. This theory, however, is flatly contradicted by those experiments in which the secretions of syphilitic sores, irritated and caused to suppurate, were inoculated upon the patients themselves, with the result of producing soft sores. It was impossible to assume that the supposed virus of soft sores was actually present in all these cases. But what was present? Not the syphilitic virus, for matter taken from these soft sores and inoculated upon healthy persons did not invariably produce syphilis. We are compelled to assume that the pus was the agent which set up the irritation and subsequent ulceration; and this assumption is rendered in the highest degree probable by recent experiments, in which ulcers exactly resembling soft sores were produced on non-syphilitic individuals by the inoculation of non-specific pus. In the first experiment of this kind, syphilitic subjects were inoculated with pus from non-venereal pustules, such as acne and scabies. Pustules and soft sores were produced. These effects were supposed to be due to the increased vulnerability of syphilitic subjects, but it has since been shown that similar inoculations on non-syphilitic subjects are often followed by ulcers closely resembling soft sores, and repeatedly reinoculable. The full details of these experiments are to be found in the late Professor Bumstead's work on venereal diseases, in Zeissl's treatise, in Baillarger's article, and in a work on syphilis which I have recently published. It has been shown, beyond all doubt, to use the words of one of the experimenters, first, "that the products of inflammatory action, if properly introduced into the human integument, may cause local ulcers, closely resembling soft sores, and reinoculable in generations; and, secondly, that, in order to produce these results, this pus need not come from a syphilitic person, or be inoculated upon a syphilitic person. If, however, the pus be taken from, or inoculated upon, a person debilitated by any disease, as syphilis, the effect would doubtless be the same, though probably greater in intensity."

It would, therefore, appear certain that the inoculation of the products of inflammation will often produce a sore identical in kind with soft ulcers, the result of impure sexual intercourse; and, this being allowed, it may well be asked what reason is there for assuming the existence of a virus, having specific characters, as requisite for the production of a soft sore? Why should it not arise *de novo*, and without the intervention of the syphilitic virus?

I will briefly summarise my views with regard to syphilis and its relation to the soft venereal ulcer.

1. The disease known as syphilis is due to the action of a specific virus, a pathological agent, separate and distinct from every other animal poison, and never originating *de novo*.

2. The soft venereal ulcer (pseudo-syphilis) is due to the action of irritating secretions, which, so far from being identical with the poison of syphilis, are altogether different and distinct from it. Such an ulcer may, and frequently does, arise *de novo* from inoculation of the products of inflammation, and may then be transmitted from one individual to another.

3. The virus of syphilis may be commingled with the secretions of a pseudo-syphilitic sore, or with secretions which by themselves would cause such a sore. In either case, the resulting ulceration would possess double properties, evidences of which would sooner or later be exhibited.

The next topic which I propose to discuss is the treatment of syphilis, and especially of the first stages of the disease. Assuming that the diagnosis has been correctly made, what is the best plan to adopt in dealing with the primary manifestation of syphilis? Before answering this question, there is another that suggests itself, namely, as to whether any of the so-called abortive measures are useful or the reverse. Several methods have been suggested for destroying the induration; some authorities advocate excision by means of scalpel or scissors, others use various powerful caustics. My own belief is that all such attempts are useless. I regard the induration as the local manifestation of the constitutional infection, which would continue to develop itself, even were it possible to remove every trace of the primary lesion. Excision of the induration is, however, still practised by a few surgeons, and they assert that, in some cases, but by no means in all, the excision is not followed by any return of the induration, or by any appearance of constitutional symptoms. They regard the induration as a local lesion, in which the syphilitic poison attains its full development, and from which it is conveyed to the lymphatic glands and other parts of the body. Some, indeed, assert that excision is not contraindicated even by swelling and induration of the lymphatic glands. My own opinion is that the glandular affection is the most important sign of the nature of the case. It is certainly impossible to reconcile the conflicting statements with regard to the efficacy of the so-called abortive treatment. It is, however, a fact that not a few of those who once practised it are now convinced of its inefficacy; and, in all probability, this plan of treatment will sooner or later be discarded.

I suppose that, at the present day, most surgeons are agreed that mercury is the medicine to be relied upon in treating syphilis; but there is, I believe, much difference of opinion with regard to the details of the treatment. Some, having diagnosed induration, withhold the exhibition of mercury until additional symptoms have developed themselves. Others are even more reluctant to have recourse to mercury. They treat the first eruptions that may appear with iodide of potassium, and prescribe mercury only when the cutaneous manifestations are particularly obstinate. This hesitation is, no doubt, caused by the fear that mercury will do mischief in some way or other. But if proper precautions be used, such fears are groundless, and to wait for further manifestations is, from my point of view at least, decidedly unreasonable. I regard the induration as a symptom of the contamination of the system, as significant in this respect as any eruption, and I firmly believe that the earlier mercurial treatment is adopted after the diagnosis has once been made, the better the prospect of getting rid of the disease.

Having determined to administer mercury, the next question is, what is the best and most convenient method of using it, and what is the best preparation?

My opinion is that, in a general way, the most convenient method of administering mercury is by the mouth, and that blue pill is the best preparation.

The patient must, of course, be carefully watched, and the dose must be reduced, or the medicine stopped for a time, if the least signs of salivation appear. Great care must be taken to avoid salivation, the production of which is not only unnecessary, but mischievous. Besides doing harm in other ways, its occurrence necessitates the premature cessation of the mercurial treatment, and this, in my opinion, inter-

fores with the production of its good effects. To be thoroughly efficacious, the course of mercurial treatment must be a prolonged one; this is a point upon which I would lay great stress.

When I first began to treat syphilis, it was the fashion (whenever mercury was given) to subject the patient to a single course, extending, perhaps, over a few months, and then to consider that nothing more could be gained from the medicine, and that its further use should be dispensed with.

Experience has convinced me that this view is erroneous, and that the practice based upon it is bad. If we wish to cure syphilis with mercury, the treatment must extend over two years; I mean that the medicine must be given during this time in courses of weeks or months, with certain intervals between them. As a general rule, I advise a six months' course at first, to be followed by an interval of a couple of months, during which the medicine is discontinued. Another course of three months is then advisable, after which a longer interval may be allowed; a third and a fourth course, with an interval between them of three or four months, will complete the treatment. The carrying out of this plan requires much self-control on the part of the patient, and sometimes it is impossible to protract the treatment to this extent. Whenever circumstances are favourable for its adoption, every effort should be made to induce patients to submit to it. No patient should be allowed to marry until he has undergone such a course of treatment as I have just described, and has subsequently remained free, for one year at least, from any sign of the disease.

There are certain circumstances which contraindicate the use of mercury, even when induration is actually present. It is seldom safe to give mercury to phthisical subjects, unless the chest-affection is slight, and the patient's health is good in other respects. Iodide of potassium is generally to be used for these cases. When albuminuria exists, mercury must, of course, be withheld, unless there be reason to believe that the renal affection is due to syphilis.

No hard and fast rule can be laid down with regard to mercury for syphilis contracted by scrofulous subjects. If the symptoms of scrofula are not very severe, mercury may be given tentatively and in small doses. Iodide of potassium is the substitute, if the mercury appears to be mischievous. Profound anæmia, and the existence of serious disease in any important organ, would contraindicate mercury. As a matter of course, the least symptom of sloughing or phagedæna would prevent any notion of mercury from being entertained; and if these complications set in during a mercurial course, the medicine must at once be discontinued.

While mercurial treatment is being carried on, especially when there is any ulceration about the mouth and throat, a few simple precautions are necessary. Alcohol and tobacco must be avoided, or used very sparingly. Exercise and fresh air tend to prevent salivation; and the skin should be kept perfectly clean. When any eruption appears, confinement to the house is desirable.

The early and continuous administration of mercury, in the way I have just recommended, appears in some cases to cut short the disease; that is to say it prevents any further manifestations. Several instances illustrating the truth of this statement have occurred in the course of my practice. In one case, a man, aged 35, presented a well marked indurated sore, with indurated and prominent glands on both sides. I prescribed blue ointment locally, and blue pill internally. The latter has been continued for a year, and no secondary manifestations whatever have appeared. In two other cases, lately under my care and similarly treated, six and eight months respectively have elapsed without any other symptom. As a matter of course, it must be admitted that such a result can seldom be attained, but I feel quite sure that the early and continuous administration of mercury invariably mitigates the severity of any symptoms that may present themselves.

As regards other plans of administering mercury, they all are accompanied by certain drawbacks. Inunction is doubtless an efficacious method, but it is uncleanly, and patients do not like it. The mercurial vapour-bath is troublesome, its effects are uncertain, and very little mercury gets into the system, unless the patient inhales the vapour freely. It is, however, very useful in the treatment of cutaneous manifestations. As regards other preparations, I give the iodides of mercury for the later stages. They are not to be recommended for the earlier ones, when we wish to produce the effects of mercury alone. I need not say anything about iodide of potassium, as that drug is useful only in the later stages, and I do not regard it as an antidote to syphilis. I never give it for primary and early secondary manifestations, unless mercury in any form is contraindicated. Its good effects are often very striking in syphilitic bony lesions, and in syphilitic affections of the nervous system.

I must now bring my remarks to a close. The points to which I

have referred, namely, the prevalence of syphilis; the non-specific character of soft sores; the importance of an accurate diagnosis, and of prompt and continuous treatment of syphilis by mercury, are, I venture to think, well worthy of attention.

Mr. KEETLEY (London) said that he had under his care an undoubted case of syphilitic infection, in which he had, six weeks ago, excised the seat of infection, a hard chancre in the groove behind the corona glandis. He found the process of excision remarkably easy, the chancre not extending so deeply as it seemed to do. The chancre had been observed by the patient a fortnight before. The inguinal glands were hard and distinct. Since the excision, a slight sore-throat had occurred and passed off, but no rash whatever. This case, so far, exactly corresponded to those described by a French surgeon at the International Medical Congress. It was not, after all, unreasonable to suppose that the removal of an extensive source of continuous infection might do good.

Dr. W. H. DALEY (Pittsburg, U.S.A.) said, with reference to the case spoken of by Mr. Keetley, in which he had excised the hard chancre, and in which there was still induration of the inguinal glands, that there should be little hope that immunity from constitutional syphilis would follow; and the only safety for the patient would lie in at least one year or more of careful treatment, and observation of the case.

Mr. MAKINS (London) thought that the treatment of syphilis by the excision of the chancre must have a future before it. Recent knowledge all tended to the belief that syphilis was dependent on a distinct organic virus. If this were the case, surely syphilis should be treated on the same principles as other infectious diseases. There was no doubt that, in patients inoculated with 'wool-sorters' disease, the malady might be cut short by excision of the primary spot of inoculation; on the other hand, if the primary inoculation were left, general constitutional symptoms and death were the result. Surely, in syphilis, the same held good; the only difference in the two maladies being the comparative differences in the length of incubation and disease. The whole question, then, was one of diagnosis. If the chancre could be removed before enlargement of the glands (the first sign of constitutional infection), there must be not only a possibility, but a distinct chance, of cutting short the disease. If, however, the treatment was to be adopted with any expectation of success, surgeons must be prepared to excise every chancre in which there was any reason to suspect syphilis; that was, they must excise many chancres unnecessarily. If this were done, he believed that the cases in which primary inoculation was followed by constitutional symptoms would be at least very much fewer in number.

Mr. WALTER COULSON (London) said that Mr. Keetley had raised the question of the value of excision of the indurated chancre in preventing secondary manifestations. Some years ago, in a few selected cases, Mr. Coulson removed the indurated mass, and, in one particular case, he removed an indurated chancre, situated at the extremity of a prolonged prepuce. Circumcision was performed, and every precaution of cleanliness adopted; but in this, and all the other cases, the result was the same—namely, a return of the induration on the site of the incision; and it would seem that this was always likely to be the case, as the indurated sore was nearly always associated with specific induration of the inguinal glands; and in one case he had seen the induration in the glands of the groin occur before the initial sore on the penis appeared. He endorsed all that Mr. Cooper had said as to the importance of a mercurial course long continued, though a stronger advocate than himself for inunction.

THE LATE MR. JAMES HINDS.—A monument has been placed in the Halstead cemetery in memory of this gentleman. It is of white Sicilian marble, with handsome ornamented cross, and bears the following inscription:—"In memory of James Hinds, M.B., Lond., who died December 22nd, 1883, aged 43 years. This monument is erected by his friends in the town and neighbourhood of Halstead, who greatly esteemed and admired him for his patient and self-sacrificing devotion to his profession, and deeply regret his early death."

PODOPHYLLOTOXIN.—Podophyllo toxin is an amorphous, gum-like, bitter substance, contained in podophyllum. According to Mr. Podryzasky, it is composed of picropodophyllin and picropodophyllin acid, the former being the active principle, and possessing in a high degree all the properties of podophyllum. It is, however, very expensive; so that, for therapeutical purposes, podophyllo toxin is preferable. It may be given in habitual constipation, and in many diseases of the liver, in doses of 20 to 27 milligrammes (one-third of a grain) twice daily, at intervals of eight hours.