Notes on venereal diseases / by H. de Méric.

VENEREAL DISEASES

H. DE MÉRIC

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To the Medical Society of London
from the Author

NOTES

ON

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BY

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To the Memory

OF

VICTOR DE MERIC, F.R.C.S., &c.

THESE NOTES

ARE AFFECTIONATELY DEDICATED

BY HIS SON

In the following notes I have endeavoured to set forth briefly and succinctly the practical results of my observations in venereal diseases.

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NOTES ON VENEREAL DISEASE.

GENERAL CONSIDERATION OF VENEREAL CHANCRES.

In the consideration and study of venereal chancres the surgeon evidently must divide them into two groups: 1, those which are commonly called "soft" sores; and 2, those which are generally denominated "hard" sores. This division, which used to be spoken of as the "duality" theory, can now be regarded as an established fact which may be proved by the experiments that have been brought forward, from Bassereau to Ricord downwards; and that I myself have often verified (*vide* cases originally published in *Medical Times and Gazette*). Great confusion, however, must be caused by the employment of the phrase "duality of *syphilis;*" there cannot be a duality of *syphilis*, syphilis being a constitutional disease by itself, but there is a duality of *venereal chancres*, which are divided, as before stated, into—1, "soft" or simple local sores; and 2, "hard" or syphilitic chancre. That these terms "soft" and "hard" are very misleading both to the student and practitioner I will endeavour to prove

farther on. The great and important fact we must always bear in mind with regard to venereal sores is, that the so-called "soft" sores constitute simply a local disease, not affecting the general system, and that they are nearly always very difficult to heal, whilst the so-called "hard" chancre is merely a local manifestation of a general disease—syphilis; the chancre itself being with very few exceptions a very trivial affair, healing readily without treatment.

The surgeon, therefore, with the "soft" sore has to employ all his energies in treating the local disease (very often a most tedious and painful process), whilst with the "hard" chancre he can almost afford to ignore (for himself, not of course for the patient) the sore itself in order to bring all his skill and care to combat the constitutional disease, syphilis. Taking these dicta as standpoints, it is evident that, could the surgeon be certain on examining a venereal sore which variety he had to deal with, he could treat the case with satisfaction to himself and benefit to the patient, but it is in the diagnosis of chancres, the distinguishing between the sore which does not, and the sore which does, affect the system that all the difficulty lies; mistakes giving rise to much suffering on the part of the patient, and much discredit, not only to the individual practitioner, but to the medical profession generally; in proof of this we have only to glance at the dread which the public seem to have of mercury—the very name of the drug seems to inspire some people with a profound horror—and we can well understand this feeling when we consider the tales and reports

which have been handed down from generation to generation of the baneful effects of mercury as administered years ago, not probably when given in cases of syphilis, though even then the doses were too large and the effects not watched, but when poured into the system of a patient with nothing in that system for the drug to fight—that is to say, in a case of "soft" sores. It would seem from this to be (indeed, I will venture to say that it is) less dangerous to mistake a syphilitic for a so-called "soft" chancre than the reverse; for in the former case the error would probably not be discovered, and mercury not administered, till the appearance of the secondary symptoms, the delay not being absolutely hurtful; in the latter case, mercury would be given at once, and the practitioner, whilst injuring his patient's constitution, would in all probability fall into the error of ascribing the non-appearance of secondary symptoms to the treatment.

The diagnosis, then, of the two kinds of venereal sores being of the greatest importance, the first thing which strikes the student is the different name given to each: "soft sores" (*chancres mous*) and "hard sore" (*chancre induré*), and he naturally thinks this to be the starting-point of the diagnosis, putting down all chancres which do not feel hard as "simple," or "not affecting the system," and all those which feel hard between his fingers as "syphilitic." This idea, I am sure, has often given rise to grave errors of diagnosis, for a great many, in fact, most, of the so-called "soft" sores feel hard, whilst certainly three-fourths of the "hard" sores have no appreciable

induration except to the most educated fingers; the difference between them is not the EXTENT of hardness, but the KIND of hardness. If we call to mind for a moment the pathology of ulceration—dilatation of vessels, exudation of liquor sanguinis, and leucocytes, and the subsequent formation of granulation-tissue—it must be evident that, in all ulceration, and most especially that on mucous membrane, there must be a certain amount of hardening. Now, in a so-called "soft" sore, which is simply a local lesion, and on which the whole strength of the poison is exerted, the irritation produced causes the granulations (especially in the centre of the sore) to disintegrate and break down into pus-cells more rapidly than is seen in other ulcerations; the centre of the sore is therefore soft, but the margins, where Nature is endeavouring to set up cicatrization, still have a feeling of hardness which may mislead the unwary, though the mere fact of a chancre having raised edges, together with an unhealthy punched-out centre, would give the surgeon a hope that it was not syphilitic.

This brings us to the consideration of the hardness of the so-called "hard" sore. After all, what is a syphilitic sore? It is merely the local manifestation of a general disease; it is merely the portal through which the disease, syphilis, enters the system. One can almost fancy that when once the disease had got its hold upon the human frame it made haste to close up the door through which it gained access by removing all irritation from it, so easily healed, as a general rule, are syphilitic chancres. And whence comes the

"hardness" of a syphilitic sore? To my mind, merely from its rapid and general cicatrization, the granulation-cells all over the ulcer being freely converted into connective-tissue corpuscles, with the exception of a few on the surface, which go to form the thin pus which is sometimes seen on these chancres. This GENERAL cicatrization, I think, explains the hardness of syphilitic chancres, the *degree* of *hardness* being in proportion to the *amount* of cicatrization necessary to heal the sore. A great point is the even way in which the cicatrization is carried on all over the chancre, giving the whole sore the appearance of being raised, the edges being higher than the surrounding mucous membrane, but not than the chancre itself; I believe that were a so-called "soft" chancre to cicatrize in the same way as a syphilitic sore, we should get the same feeling of hardness in the one as the other, but the poison of the "soft" chancre (having, one may almost say, nothing else to do) continues to irritate the sore, setting up disintegration and softening and giving a quasi-fictitious feeling of softness. For these reasons I am of opinion that the names "soft" and "hard" chancres are misleading and unscientific, and might, with advantage, be replaced by "simple" or local chancres and "syphilitic" chancre. Putting the former in the plural, and the latter in the singular, brings us to another point to be borne in mind in the diagnosis of venereal sores: "Simple or local" chancres are *always* multiple, whilst "syphilitic" chancres are very often, but not invariably, single. This is very easy to explain if we remember that the

pus of a simple sore, if inoculated on the same person, will produce a similar sore, whilst that of the syphilitic chancre, if inoculated on the same person, produces no effect whatever. We can well imagine the discharge from a simple sore (which, as before pointed out by the intensity of the inflammation, is very copious) spreading widely on the mucous membrane under the foreskin, and wherever the slightest solution of continuity existed producing another sore. Probably several of these sores are inoculated at the time of contagion, especially as they necessarily would be multiple in the person from whom the disease was contracted, and it is evident that, if not treated vigorously, they must necessarily multiply, by the mechanical effect of their own pus, and that is why they are *always* multiple, though most likely, when first seen, they may be in different stages of development; for the same reason, if only one of these sores were inoculated *de novo*, it would speedily, unless absolutely isolated, produce other similar sores around it (this could only be absolutely proved by inoculating one person from another with the lancet, which, for obvious reasons, could not be done; as during connection it is evident that more than one of these sores must be inoculated). How different with the syphilitic chancre, it never multiplies, if it begins as a single sore it remains as a single sore, the thin glairy discharge, or pus, in exceptional cases, may spread far and near the original sore, but it produces no similar sore; if syphilitic sores are multiple, it is that the disease has entered the system at the time of contagion by several portals; but whatever the

number of these portals—and they hardly ever exceed two or three—they never increase; therefore, two or more syphilitic chancres are never seen on the same person in different stages of development. This carries us on a step farther, to the difference in the time of incubation of the simple or local chancres and the true syphilitic sore. In the former, there is really no *incubation* at all—I would rather speak of it as *development*—for the chancres must be produced at once, where they are inoculated during connection, taking a day or two to develop and for the local irritation to produce the amount of inflammation necessary to form the sore; in the latter, on the contrary, it seems almost as if the poison of syphilis were occupied in getting a firm grip on the system of the patient before showing itself at the portal of entry—*i.e.*, the syphilitic chancre; and this is probably the reason why the excision or destruction by caustics of a *real syphilitic chancre* has always failed to rid the patient of the disease syphilis, as proved by the subsequent appearance of the secondary symptoms. Could the microscopic entry of the disease be discovered, and cauterized or excised at once after connection, there might indeed be some hope of the poison being prevented from entering the system; but once the chancre itself appears, I believe heroic procedures to be useless. As a parallel, we cauterize or excise the bite of a rabid animal at once; but were the entry of hydrophobia into the economy to be left for three, four, five, or six weeks, cauterization or excision would give the patient but a poor chance of escaping the disease. The incubation of the syphilitic chancre, then,

or, rather, the period during which the disease, syphilis, remains latent, varies considerably: as far as I have remarked myself, it is never *less* than ten days, and may extend to six weeks or more. It stands to reason, however, that the length of incubation is a very uncertain test to go by in patients who have had various connections at different lapses of time from the appearance of the venereal lesion. Of this it is not always easy to get an acknowledgment, besides, the patient almost invariably ascribes his disease to the last connection. I have often been surprised in cases of chancres—which from all other indications I have put down as syphilitic—to hear the patient assure me that he had remarked the sore a day or two after connection, but I have never failed to elicit, though sometimes only after much trouble, that another connection had taken place some weeks previously; so, bearing in mind the occasional great length of incubation of a syphilitic sore, the surgeon must be careful not to be led into error by a statement of the patient which refers to his last connection: for instance, a married man might imagine his wife had given him the sore which he had acquired from an illicit intercourse six weeks or two months previously.

What other means of diagnosis does the surgeon possess independently of the consideration of the sores themselves? Naturally, the one which altogether removes all doubt is the appearance of secondary symptoms; this, however, demands a certain lapse of time: but there is one accompanying the chancres which is of paramount importance, which is to be found in the

patient's groin and which may be broadly summed up as follows : In simple sores either nothing at all in the groin or intense inflammation of the lymphatic glands, speedily going on to suppuration and abscess ; in the syphilitic chancre the glands in one or both groins are *always* indolently enlarged and hardened, acute inflammation and suppuration in them being quite the exception.

It seems quite surprising in one case, in which the glans penis is covered with simple sores in a state of intense inflammation and suppuration, causing the patient great pain, to find absolutely nothing in the groin, the lymphatic glands not even being enlarged, whilst in another perfectly similar case, as regards the simple sores, the glands are intensely inflamed and painful, evidently going on to form an abscess which no skill on the part of the surgeon can avert. And now to turn from these two phases seen with simple sores to the one which invariably accompanies the true syphilitic chancre : in this the lymphatic glands in the groin are *always* indolently enlarged ; they feel like marbles to the surgeon's finger, and are very rarely painful, the suppuration which occurs in exceptional cases is quite superficial, and not at all intense ; in fact, any inflammation taking place in these glands indolently enlarged by the syphilitic sore seems to me dependent on some external cause, such as fatigue from exercise, &c., and not on the sore itself, as I have seen some of these cases in which suppuration has appeared imminent, but has been averted by rest and proper local applications. This would never happen in a case of simple sores in

which any inflammation in the groin is certain to run on to suppuration and abscess.

Does not Nature by the signs in the groin point out to us with great accuracy the difference between the purely local simple chancres and the constitutional syphilitic sore: in the one, the local inflammation of the lesions themselves may, or may not, extend to the glands of the groin, if it does, it is arrested there, and sets up the same amount of irritation as is present in the sores themselves; this being always intense, the result necessarily is suppuration and abscess; in the other, the poison of syphilis must pass through the lymphatics, and leaves in the glands of the groin a certain amount of congestion, the irritation being sufficient to cause hardening, but not inflammation or suppuration.

I may here mention, in connection with the primary syphilitic lesion, another point which, although I have often remarked it, is perhaps of secondary diagnostic value, as it appertains to the patient's own sensations, and, occurring in a greater or less degree, is not always easily elicited by the surgeon: I allude to a general feeling of "malaise," amounting sometimes to intense nervous prostration, which is experienced a few days before the appearance of the sore. This must not be confounded with "syphilitic fever," which shows itself just before, or during, the appearance of the secondary eruption. This malaise cannot be described as fever, for it seems to come on suddenly and to go off in a few hours; but it has so often been mentioned to me by patients, that I cannot help thinking its appearance seems to indicate the time when the poison of

syphilis has got a firm hold of the system, which it has been gradually invading during the period of incubation of the chancre.

Before leaving the question of diagnosis, it may be as well to say a few words with regard to the seat of the two kinds of venereal chancres: it is evident that both simple and syphilitic sores must be most commonly met with on the external organs of generation. In the male, venereal chancres are certainly most frequently seen in the sulcus behind the glans penis, about the frænum, on the mucous membrane of the foreskin, on the foreskin, and on the glans penis itself. Simple sores may be distributed all over these parts, and are generally close together; on the other hand, when there is more than one syphilitic chancre, they will be found generally some distance apart, this being explained by the fact that they are merely portals of entry of the disease syphilis, each inoculated separately at the time of infection, and not being formed by the inoculation of the matter from an existing sore, as is the case with simple sores. There is one seat where the chancre is always syphilitic, and that is just within the male urethra, in the fossa navicularis. This seems to me easy of explanation, for urethral chancre must be directly communicated from secondary mucous patches (*plaques muqueuses*) existing on the cervix of the female in close proximity to the os, in which situation simple sores have rarely, if ever, been found. Simple sores, however, may be met with all round the orifice of the male urethra, probably by inoculation from other sores on the same penis, espe-

cially in men with very long foreskins, in whom the discharges from under the prepuce would be more readily carried into the vicinity of the meatus urinarius; in other patients this might occur through want of cleanliness; from this position the simple sores may extend all round the opening, eat away its edges, and form a large sloughing ulcer, most difficult to treat, owing to the constant passage of urine over it. How different to the small urethral syphilitic chancre, which often cannot be seen without separating the lips of the meatus, and which nearly almost always heals most readily in spite of its unfavourable position. Simple sores may occur about the anus, especially in women, in whom the discharge from existing sores on the genitals easily finds its way across the perinæum. It is evident that a syphilitic chancre of the anus must be the result of unnatural connection, as it could not be produced by the discharge of another sore on the same person.

Simple sores are very rare on the skin of the penis. It is difficult to explain this, as during connection the skin of the penis near its root would really be the part most exposed to infection, for the simple sores would in all probability be on the labia of the woman; but I believe the virus of the simple sore requires a larger solution of continuity to ingraft itself than that of the syphilitic chancre, and is more easily swept away by external influences, such as cleanliness. This would tend to explain the infrequency of simple sores on the skin of the penis, which would naturally offer greater resistance than delicate mucous membrane, especially as the virus would

probably be retained under the foreskin after connection. Acting on this belief, it is plain why syphilitic chancres are occasionally seen on the skin of the penis where the slightest microscopical solution of continuity would suffice for the entry of the virus, which, once in (were it possible to discover its entry), could perhaps not be dislodged even by prompt local measures. Necessarily, simple sores very rarely (if ever) occur on other parts of the body, as it would require great uncleanliness for them to do so, as they are the result of direct inoculation: on the other hand, the syphilitic chancre is not uncommonly seen both in men and women on the lips or face, through the contagion from secondary mucous patches in another person. This rarity of the presence of simple sores on other parts of the body, except on the mucous membrane of the genitals, seems to me an additional proof of the greater solution of continuity, and of the larger and closer want of contact required by the virus of these sores compared to that necessary for the inoculation of the syphilitic lesion. I am sure it must have been a source of wonder to others, as well as to myself, that hospital patients do not often reproduce on their lips and in their nose, through the medium of their fingers, the simple sores existing on their penis; on the other hand, what a slight contact will communicate syphilis from one person to another, kissing, drinking out of the same vessel, &c. This difference is still more clearly demonstrated by the germ theory, if we regard simple sores as merely the result of putrefactive inflammation, and syphilis to be caused by the absorption into the

system through the syphilitic chancre of a definite bacillus (the evidence of the presence of this bacillus was obtained by Lustgarten in 1885). In women, simple sores are most commonly seen on the mucous membrane inside the labia, at the fourchette, and (by subsequent inoculation of the existing sores) in the perinæum and about the anus; they are very rare about the walls of the vagina or on the cervix or os uteri; this may be explained by the theory that in the former case the natural discharges of the vagina, aided by the force of gravity, wash the virus downwards towards the external parts before it has time to ingraft itself; and in the latter by the improbability of their inoculation on the cervix or os by contact during connection, as simple sores are not often met with in men at the extreme end of the penis round the urethra; and in cases where they are present in the male in these situations the inflammation and pain would preclude the possibility of connection taking place. It is comparatively seldom that the surgeon has an opportunity of seeing a syphilitic chancre on the organs of generation of a woman; the chancre itself is generally such a trivial affair that it altogether escapes the notice of the patient, and she only seeks advice on the appearance of the secondary symptoms; in these cases, I believe, there have been two or three insignificant chancres, often so small that it is with the utmost difficulty the surgeon can find any traces of their cicatrization; these I have frequently met with in women who had not the slightest idea of the presence of any venereal lesion; on the other hand, the syphilitic

chancre, which the woman finds out for herself, is generally single, large, raised above the surrounding mucous membrane and skin, and has become irritated and painful owing to some external mechanical cause, such as repeated connections. I have often seen such a chancre on the skin just outside the labium majus, between it and the thigh; a syphilitic chancre on the cervix must necessarily be very rare, and its discovery on a patient, at least in England, where the examination of prostitutes is not compulsory, the result of chance, as its presence in ninety-nine cases out of a hundred would not be suspected till the advent of the secondary symptoms. Syphilitic chancre is met with occasionally in wet nurses on the nipple, the disease being communicated by the suckling child.

Going back to the very first manifestation of venereal sores it will be found there is a marked difference in the initial lesion. The simple local sore begins with a pustule, the syphilitic chancre shows itself as a papule. It is evident that more opportunities must arise to study the beginning of a simple sore than the first manifestation of a syphilitic chancre; in the first place, most men, after a suspicious connection, are on the look-out during the first few days for any signs of having contracted a disease, and constantly examine their genitals; in the second place, a pustule is more visible and looks more serious than a papule, or even a conglomeration of papules, and certainly causes more uneasiness, and even pain, to the patient; in the third place, the appearance of the syphilitic chancre often comes as a complete surprise to the patient, who, after two or three weeks,

imagines himself safe, and, not having looked for it, has not remarked the innocent-looking papule. The pustule of the simple sore is single for each sore, though the sores may run into one another afterwards, by extension of the ulceration, but a syphilitic chancre is often formed by a conglomeration of small papules.

Before leaving the question of diagnosis, it may be well to mention a point which is more of a pathological than diagnostic value, as, for obvious reasons, it can rarely be brought into action. It has been shown that the pus taken from a suppurating bubo caused by simple sores, and inoculated on the same person, will produce another ulceration similar to the original sores, whilst if the same thing be done in one of those exceptional cases in which there is suppuration in the groin from a syphilitic chancre, the result is negative; it will at once strike the observer that the effect in both cases is similar to what would be produced by direct inoculation from the sores themselves; this is not easy to explain with regard to the case of simple sores, except on the supposition that the wound in the groin caused by the opening of the abscess has itself become directly inoculated from the sores through the medium of the surgeon's or patient's fingers or by the dressings. Would this result be the same were the pus inoculated the instant the abscess was opened? On the other hand, syphilis being a constitutional disease, the pus from the abscess would naturally produce no result if inoculated on the same person.

The preceding remarks make the *prognosis* of venereal sores very obvious. With regard to simple sores

it is evident that once the local lesions have disappeared and the possible suppurating bubo has healed, the patient is well, there are no after-effects to be feared, and other similar sores can only be the result of another infection. The sores themselves may be very difficult and tedious to treat, they may become phagedænic, and give rise to considerable loss of tissues locally, the abscess in the groin may obstinately refuse to close and may form sinuses, which occasionally seem to defy all treatment; but the patient has nothing to fear constitutionally, though he may be greatly depressed by worry, and his system much pulled down by the drain of long-continued suppuration. It need scarcely be pointed out what a relief it must be for the patient when the surgeon can tell him this, how it will ease his mental anxiety, and enable him to bear more cheerfully the pain of the disease and of the necessary treatment; all the more so as the large majority of people the instant they get sores on the genitals at once imagine what they see to be syphilis, or what is commonly known to the public as "the pox."

What a difference to the prognosis of syphilis itself as presented by the syphilitic chancre; then it becomes the surgeon's painful duty to assert that a constitutional disease has been contracted which will require an internal treatment of some years for a hope of its eradication from the system. I purposely use the word *duty*, for I certainly think it is the *duty* of the surgeon not only to assert these facts to the patient, but to endeavour to impress them on him thoroughly.—As I have before remarked, the syphilitic chancre in itself is

usually a most trivial matter, and the glands in the groin rarely give rise to much pain. Certainly nine out of ten patients cease all treatment when the chancre is healed, they may or may not resume it with the secondary eruption, and will probably drop it again on the disappearance of the rash, unless the throat be severely affected, when they will continue under the doctor's hands a little longer. This intermission and cessation of treatment is exactly what it is our duty to endeavour at least to avert.

Can treatment eradicate the disease? I believe it can if properly carried out and continued long enough; and I base this assertion on the fact of having seen one or two cases in which, after a lapse of years, syphilis has undoubtedly been contracted as a primary syphilitic chancre for the second time. On the other hand, patients enjoy complete immunity from contracting a syphilitic chancre for an indefinite time after all primary and secondary symptoms have disappeared. Of this the following case is a good example, and I can vouch for the accuracy of the facts, as the parties concerned were under my own immediate supervision:—"A gentleman came under my care, having contracted an urethral chancre, and I attended him through a mild course of primary and secondary symptoms; the chancre healed very quickly, the roseola soon disappeared, the only symptoms giving any trouble being some 'plaques muqueuses' about the throat; these, however, gave way to appropriate treatment, which the patient followed conscientiously for about six months, when, like many others, all

symptoms having disappeared, he gave it up, contrary to my advice. I may add, that I could follow this case closely, as the gentleman was not only a patient, but a personal friend of mine. More than a year had elapsed, when I had under my care a young woman of the demi-monde, in whom I was fortunate enough to have the opportunity of studying a typical syphilitic chancre; some months afterwards the chancre having healed and the rash disappeared, she was suffering only from some mucous patches about the genitals; these, I ascertained, had communicated syphilis to a gentleman with whom she had relations, when I accidentally learned that my former patient had made her acquaintance. On my inquiring, he acknowledged that he had had connection with her. As I was very curious to know the result (if any), I kept him under observation for some time, but never a sign of chancre appeared, nor has he suffered since from any venereal affection, and that is more than three years ago."

The prognosis, therefore, of a syphilitic chancre is bad, not of the chancre itself, but of the disease syphilis, of which it is only the portal of entry, not directly for the patient's life, but indirectly, by undermining his constitution. If the disease fall lightly on the individual, it may fall more heavily on his or her progeny; but the unfavourable prognosis may be mitigated by treatment; so, again, I say, it is the surgeon's duty to enforce the continuation of the treatment by explaining to the patient the serious nature of the disease, especially after the easy disappearance of the primary and, very often, of the secondary, symptoms.

SIMPLE LOCAL SORES.

I will now recapitulate and examine more closely the characteristics of simple local sores (or, as they are called, "soft," sores). These lesions nearly always begin as a pustule; this, probably at the very beginning, is a vesicle, but the inflammation is so intense that the vesicle rapidly becomes a pustule. The surgeon, however, does not often see the very first appearance of these sores, for the suppuration and ulceration being so rapid, as a rule the pustule has burst and formed a sore before the patient applies for relief. This ulceration and suppuration are greatest in the centre of the sore, the edges having a tendency to granulate and cicatrize, which, however, is often counteracted by the intensity of the inflammation proceeding from the centre. It is this partial cicatrization that gives the sores the feel of doughy hardness when taken between the finger and thumb which may mislead the unwary, and the whole process produces that appearance of being punched out which is so characteristic.

Simple sores are invariably multiple; it is probable that they are inoculated *à priori* in several places from the infecting person, in whom they *primâ facie* would be multiple. But even supposing only one sore to be inoculated at the time of infection, others would soon be formed in the vicinity wherever the pus found a solution of continuity; for one of the great diagnostic points of these sores is, that they can be reproduced on the same person by inoculation, showing plainly thereby that they are local and not constitu-

tional. This explains the fact that simple sores are often seen in different stages of development on the same person; and on examining more closely it will be remarked that the more recent sore is always in the vicinity of the older sore, or, at least, in such a position as can easily be reached by the discharge from the latter. It might so happen that two different connections might produce two different crops of these sores, but this is very improbable, as the pain they cause precludes in most cases the possibility of another connection. This pain is nearly always very severe, there is a great amount of tension and hyperæmia of the penis, often causing phimosis in those who have long foreskins, and sometimes paraphimosis in those cases in which the prepuce only just covers the glans.

Simple sores are essentially in both sexes lesions of the genitals; but in women we see them reproduced about the perinæum and anus by the discharge finding its way to these localities; they are very rarely seen on other parts of the body, where direct contact of the sore or of its discharges would be an exceptional occurrence. They are also essentially lesions of the mucous membrane of the genitals; it is probable not only that the skin offers more resistance to the implantation of the virus, but also that the skin is subjected to even a small amount of cleanliness which is not extended to the mucous membrane. Why do we never see simple sores of the urethra? During connection with a woman suffering from simple sores it is more than probable that some of the pus must find its way into the male urethra. Is it washed away by the dis-

charge of the semen, or, if not by that, by the subsequent evacuation of urine?

Simple sores are nearly always a long time healing, and give the patient and the surgeon a great deal of anxiety. They extend rapidly by ulceration, often become phagedænic in spite of the greatest care, but they cause no constitutional disturbance whatever, though often provoking a great deal of mental worry.

These sores cannot be said to have any incubation, we may say they make their appearance on the places infected in from one to three days; in fact, the more or less hours they take in appearing is probably dependent on the less or more intensity of the inflammation in the original vesicle, which certainly must be formed a very short time after connection.

Now, to turn to the glands in the groin: as I have before pointed out, with simple sores there is either nothing at all in the groin or there is intense inflammation of the glands, terminating unavoidably in abscess, this being generally spoken of as "bubo"; the explanation of these two most opposite conditions is difficult even if we regard the latter as merely the result of mechanical irritation travelling up the lymphatics; then why should the abscess not be invariably present, the mechanical irritation of the sores being the same in the two conditions? a parallel may be drawn by asking why gonorrhœa does not invariably produce epididymitis. The fact that the pus of the abscess when inoculated will produce a simple sore (*bubon infectant*) would seem to prove that the virus of the sores themselves finds its way to the bubo, but

whether through the lymphatics or by the patient's or surgeon's fingers or by the dressings, cannot be asserted until we find out what the inoculation produces when performed with the pus taken from the abscess the instant it is opened. The appearance or non-appearance of the abscess in the groin has certainly nothing to do with the virulence or irritation of the sores themselves. I have frequently seen patients with the penis covered with simple sores, in a high state of inflammation, to which caustics have been freely applied, but without a sign of anything in the groin ; and others with a huge abscess in the groin in whom the sores go through what may be termed, for them, a benign course.

The prognosis of simple sores is good with regard to the patient's constitution which they do not affect, but very often bad locally, for in becoming phagedænic they may eat away a part of the penis and consequently leave ugly scars ; besides which they are nearly always very difficult to heal, and cause a great deal of mental worry.

Of the three venereal diseases—simple sores, syphilis, and gonorrhœa—I regard simple sores as certainly the least common : this is easy of explanation, as the pain and inflammation they give rise to preclude, at least in the vast majority of cases, the possibility of connection, whereas, in syphilis, the disease is communicated not only by the original chancre, which is generally painless, but also by the secondary plaques muqueuses ; and in gonorrhea but a very slight discharge is sufficient to contaminate another person. Simple sores also may be set down as a disease of the poorer classes, the surgeon

sees them very much more often in hospital than in private practice. Amongst prostitutes, according to my own experience, they are only found in the very lowest class. It is difficult to verify this on a more extended scale, as there are, unfortunately, no statistics of prostitution in this country ; and as the Contagious Diseases Acts are dead letters, there seems no chance of completely stamping out simple sores, which eventuality might perhaps be hopefully looked forward to under different conditions of legislation.

With regard to the treatment of these sores, it is evident that one of the first things to be impressed upon the patient is absolute cleanliness, which is often much neglected among hospital patients, and this neglect in many cases seems to paralyze the efforts of the surgeon, and to make the case long and tedious. When there is a long foreskin, which, after a time, it is impossible (and even if possible, excessively painful) to get back, owing to the intensity of the inflammation and ulceration, I cannot too strongly recommend the constant use of tepid water, freely injected all round the glans, under the foreskin, by means of an ordinary glass syringe. The lotion which the surgeon prescribes can be used in the same way, but the tepid water should be employed not only immediately before its application, but very much more often. One of the most important agents in the successful treatment of simple sores is undoubtedly caustic : by the application of caustics we can destroy superabundant and unhealthy granulations, and form a crust under which there is the prospect of fresh and

healthy granulations springing up; in cases of phagedæna we may hope by this means to arrest the progress of the disease, and set up healthy action. In ordinary cases nitrate of silver should be employed; it must, however, be applied very freely. In those cases previously mentioned where it is impossible, or at least very difficult, to get the foreskin back, a thin stick of the caustic may be passed up between the glans and the foreskin, and swept round. This is doubly useful, as there generally co-exists a certain amount of balanitis, which is also benefited by this treatment; but when there is a great deal of sloughing going on, when the sores seem extending rapidly, and the efforts of cicatrization at the edges are absolutely destroyed by the intensity of the inflammation and ulceration in the centre, then I think fuming nitric acid is most useful, especially as a single application is very often sufficient, whereas the nitrate of silver would have to be used several times at short intervals, causing the patient a great deal of pain; not but that the nitric acid causes no pain—quite the contrary—but one or two applications would be sufficient; of course it must be applied with very great care, and only to the sores themselves, more in the centre than at the edges. It would seem at first sight that a very simple proceeding in cases of simple sores underneath a long prepuce would be either to slit up the foreskin or perform circumcision, so as to be able to get at the sores, and apply the proper remedies; but, on the contrary, the surgeon is very careful not to employ either of these measures, as the wounds produced by

the incisions would be inoculated with the virus of the sores, and a huge ulcerating surface would be produced most difficult to heal; on the other hand, could the surgeon be *absolutely certain* that the sores were syphilitic he might operate with impunity.

A large number of substances, both as powders and in solutions, have at various times been recommended as applications to simple sores: it is evident that it is of paramount importance that whatever substance be chosen it should be antiseptic. By long experience I have come to the conclusion that liquids are more favourable than powders; the former are certainly more cleanly; powders are very useful applied to an ulcerating surface which is free, but not, in my opinion, where, by the fact of their being confined by the drawing forward of the prepuce, they become mixed with discharges from the sores, and find no exit unless the dressings be changed excessively often. One of the most favourite applications in these cases, especially in France, is iodoform; there can be no doubt of the great antiseptic properties of iodoform, and through them it should certainly be of great value for simple chancres; but besides the objections I have just mentioned in speaking of powders generally, iodoform has the great disadvantage of a very strong odour, which is intensely disagreeable to some people, and which, it must be borne in mind, almost seems to stamp the patient in the eyes, or rather noses, of his acquaintances as suffering from some venereal complaint; for the surgeon must remember the case is not one of a patient in a hospital ward, or even

confined to his own room, but that of a man going about amongst others in his daily work or business. For these reasons I seldom prescribe iodoform for simple sores either in hospital or private practice, although I sometimes apply it a few times in cases where the foreskin is short, more especially in Jews; and even then I have found it very advantageous to suspend the iodoform in collodion, and paint it on the sores. In women, were it not for the smell, it would be more useful, as lotions are not easily kept applied; but for them calomel is the best powder to order, and in many cases is of great service.

After a fair and impartial trial of most of the lotions which at various times have been recommended for these sores, I am certainly of opinion that by far the best of them all is the ordinary black wash of the B. P. The best mode of application is to wet small strips of linen with it, draw back the foreskin so as to well expose the sores, which may be then covered with one or two strips, and bring the foreskin well forward again over the glans penis. One strip is generally sufficient, which nearly goes round the penis when the sores are in the sulcus; but of course, wherever the sores are, the lotion must be brought in contact with them. This dressing should be changed three, four, or six times a day. These details are not superfluous, as I have seen patients come to the hospital with the foreskin drawn back, and the piece of rag holding the lotion tied round the penis, this nearly resulting in paraphimosis. Even in some cases I have been told that this has been done by the orders of a medical

man, but I could hardly credit such an assertion. Linen is better for strips than lint, as the latter is too thick, and there is often a difficulty in drawing the foreskin forwards over it. In women, however, lint is preferable; a piece may be folded in two, well wetted with the lotion, and applied between the labia. Other useful lotions are: Carbolic acid, 1 in 40, or stronger; the red lotion (zinci sulph., gr. 8 or 16; tinct. lavandulæ co., f℥ss or f℥j, and aq. rosæ ad f℥viij) much used and with great success by my late father; boracic acid, 1 in 20; Condy's fluid; but, as I have remarked before, I have found none so useful as the black wash, the good effects of which are sometimes quite marvellous. Ointments are occasionally prescribed as applications to these sores: as far as I can judge by my own experience, their use is not attended with the same benefit as that of lotions, besides which they are less cleanly; they may, however, be of use in both sexes where some sores have appeared about the perinæum or anus, as in these parts it would not be easy to keep a lotion properly applied.

It is especially when simple sores become phagedænic that skill and patience are required on the part of the surgeon; there must be no hesitation about the application of strong nitric acid, and this must be done freely and as often as is necessary; the dressings must be changed very often, and whatever lotion is chosen it should be stronger than for ordinary simple sores. When, in these cases, there happens to be a long foreskin and we see every indication of the sores sloughing through it,

what is to be done? It is often very difficult to decide, especially when it is impossible to uncover the glans. I think in such a case it would be as well to throw up several times, between the glans and foreskin, a solution of nitrate of silver of about 20 grains to the ℥, taking care to direct the nozzle of the syringe to the principal phagedænic situation; if possible, a stick of solid nitrate of silver might be swept round under the prepuce, but this, if not done with great care, might produce the very result we wish to avoid—namely, piercing the foreskin. If these methods do not produce speedy amelioration, it is best to slit up the foreskin merely (not circumcise), and apply nitric acid not only to the sores, which are then laid bare, but also to the lines of incision made by the knife. These last will certainly develop into sores, but we must take the risk of the extra sores for the advantage of having the whole under our control, remembering that, if we had not operated, in all probability the entire foreskin would have sloughed away, and very likely part of the glans, which would have been out of our reach.

When simple sores take on phagedænic action, it is evident (as it would be with regard to any other ulceration on the body) that the general health of the patient must be out of order (and this applies also to those cases in which the sloughing is partly the result of dirt and neglect, as it is marvellous to what an extent Nature will repair when the general health is good), therefore medical treatment is of great importance. Depletion is rarely necessary, unless the subject be very full-

blooded and plethoric; but iron, quinine, cod-liver oil, &c., together with a generous diet and good air, are of immense service.

It may be as well to consider now the bubo, which so often accompanies these sores; I have before pointed out that with simple sores we either see and feel nothing at all in the groin or intense inflammation is set up in this part, speedily followed by suppuration, forming an abscess, which is called a bubo; the hard, painless, inguinal glands so characteristic of the presence of the real syphilitic chancre are never met with as the effect of simple sores. When the swelling makes its appearance it is nearly always accompanied by considerable pain, therefore the ordinary plan of applying iodine paint in the hope of dispersing it by counter-irritation should not be employed, for the inflammation set up in the groin by simple sores invariably runs on to suppuration, so the tincture of iodine only irritates the skin without relieving the pain or averting the formation of an abscess; it is far better to smear the groin with belladonna ointment, or to use hot fomentations, and, later on, a well-made poultice gives the most relief. The abscess once formed, it must be opened, and, if possible, this should be done with antiseptic precautions, carbolic spray, surgeon's hands and instruments dipped in carbolic acid, &c. The wound may be powdered with iodoform and dressed with salicylic gauze after a drainage-tube has been inserted, but the surgeon will be much disappointed if he imagine that the dressings can be left on five or six days, and on their removal the wound found healing

and the abscess cured. On the contrary, in these buboes the inflammation is so intense that it is of the utmost importance to procure free drainage, and, in my opinion, it is best to apply at once the linseed-meal poultices, which seem rather unjustly despised in modern surgery. When the inflammation and suppuration have subsided, and the wound is seen to be granulating healthily from the bottom, the poultices should be replaced by dressings of boracic lint, soaked in warm water, or of ordinary lint dipped in a weak solution of carbolic acid, or some astringent lotion. The incision should be free, as the wound has to heal from the bottom, and in the same direction as the fold of the groin; some surgeons prefer a vertical incision, this has the disadvantage of being necessarily more limited, but still may be said to possess the advantage of rendering the wound less liable to gape in persons who are obliged to walk about during their treatment. This brings us to what I look upon as one of the chief reasons we see so many of these suppurating buboes, degenerate into unhealthy sinuses most difficult to heal, and causing the patient a lengthened period of anxiety, and that is, patients are allowed to walk almost immediately after the abscess has been opened; if a large abscess in any other situation has been incised and is draining, one of the first things the surgeon impresses on the patient is to keep the part quiet, but in the case of a suppurating bubo, Nature, in most cases, is asked to do impossibilities, and close a suppurating tract existing in parts which are not even kept at rest; of course, this applies principally to

hospital patients, and is an outcome of the small amount of hospital accommodation in London for venereal cases. A man is often kept on as an out-patient for months with a bad sinus in his groin, leaving an ugly scar, when, had he been an in-patient for a week or two, he would have gone out with his abscess cured and a clean scar. In these obstinate cases the best plan is to slit up all the sinuses and dress the wound from the bottom with lint, soaked in an astringent lotion, one of the best of which is the red-wash before mentioned, pressure is of great service by means of a pad and a figure-of-8 bandage, and, above all, complete rest. Sometimes the ragged, congested, bluish edges of the skin round the wound overlap the unhealthy cavity; these should be snipped all round with a pair of curved scissors, for they seem to irritate almost like a foreign body; stimulation by means of lunar caustic, both to the edges and to the cavity itself, is often useful. It goes without saying, that if the wound in the groin take upon itself the character of the original venereal lesions, in fact, becomes the *bubon infectant*, it must be subjected to the treatment which I have described as applicable to the simple sores on the penis.

There is a theory that venereal poisons can be absorbed during connection, and passing through the lymphatics of the penis without forming a sore proceed to determine a swelling in the groin, which may or may not inflame and suppurate; to this has been given the name of *bubon d'emblée*. It is difficult to admit this theory, and I think the surgeon, by close consideration of the case, will always be able

to find a cause for the swelling, without having to draw so largely on his imagination. Long protracted or violent connection, or any exercise unduly prolonged, constantly irritating urine, cystitis, an ulcer of the leg or foot, an in-growing toe nail, all these may irritate the glands of the groin and cause them to enlarge; besides, it must be borne in mind that in many persons, and especially in those who are weakly and anæmic, the lymphatic glands, not only in the groin, but in other parts, often enlarge and become inflamed without any appreciable cause, so that it seems rather hard upon a patient (though he may have laid himself open to venereal contamination), to ascribe a swelling in the groin to the possibility of the poison of simple sores being absorbed and travelling up the lymphatics to the groin without having previously formed sores on the penis, especially as it is by no means certain that the virus, when the sores exist, ever travels to the groin through the lymphatics even to form the *bubon infectant*. There is one form of swelling in the groin running on to suppuration and ulceration, which, as Mauriac has pointed out, must not be confused with the so-called *bubon d'emblée*, and that is, a tertiary gummatous tumour. When this has degenerated into an ulcerated cavity we must be careful not to take it for a *bubon infectant;* though, of course, simple sores, with no bubo, could co-exist with tertiary syphilis; the diagnosis in an obscure case might be made by inoculation, the *bubon infectant* producing a simple sore, whilst the effect of the pus from the gummatous ulcer would probably be *nil*.

This differentiation is of all the more importance as local treatment, which would benefit the former, would be of little use for the latter, unless accompanied by the internal remedy for tertiary syphilis. The treatment of these so-called *bubons d'emblée* is the same as that of an ordinary bubo. We may, however, be more hopeful of dispersing them by iodine paint, for the inflammation set up has not a tendency to run rapidly into suppuration, as would be the case with swelling the result of simple sores. Naturally, the cause of their presence should be removed or palliated. It will be remarked that all these buboes, whether "simple," "infectant," or "d'emblée," commence by being glandular (even the gummatous "tumour" begins by a gummatous deposit in an inguinal gland), and therein lies their diagnostic distinction from other enlargements in the groin, such as herniæ, collections of pus, or various tumours.

Before leaving the subject of simple sores, it may be as well to say a few words about the balanitis which frequently is seen in their company: this balanitis, often called balano-posthitis, is an inflammation of the mucous membrane which covers the glans penis and is reflected under the foreskin; a glairy discharge is thereby secreted from these surfaces which, if neglected, will speedily become purulent. Balanitis is generally ascribed to neglect of cleanliness, together with a long foreskin. These are undoubtedly very frequent, but not the invariable, causes of the complaint. I have seen many cases of balanitis (both complicated and uncomplicated with sores) in which the foreskin has not

been long, and in which one certainly could not accuse the patient of want of cleanliness ; these I have put down to very acrid and irritating, though natural, discharges from the female vagina, coupled with excessive and prolonged connections. The discharge from a balanitis which forms a complication with simple chancres, is always more abundant and more purulent than that arising from the same complication with the syphilitic chancre. This is an important diagnostic sign when there is a very long foreskin and partial phimosis, second only to that of the power of inoculation possessed by the discharge of balanitis in a case of simple sores, as seen by the development of more of these sores at the end of the foreskin, which is being constantly bathed by the pus ; this, of course, could not happen were there only a syphilitic chancre under the prepuce. The surgeon, in these cases, must not be led away by a feeling of induration, for what with the doughy hardness of the simple sores themselves, and the inflammation set up through the discharge of the balanitis being confined by the long and tight prepuce, there is such a large amount of infiltration, that the whole of the affected part may take on quite an induration without the presence of a syphilitic chancre. It should be remembered, that if a syphilitic chancre exist at all it will probably be single and very much indurated on account of the irritation, so that if there is a definite stony hardness *at one spot* under the foreskin, together with other diagnostic signs, to be presently described, it may be concluded that one is present, not, however, to the exclusion of simple sores which may co-exist with it. If simple sores

alone accompany the balanitis, the groin will exhibit the symptoms already mentioned under simple sores. The best treatment for balanitis is to pass a stick of nitrate of silver very lightly over all the inflamed surface, which should then be dressed with a little oil to alleviate the pain; when this has passed off, an astringent lotion should be applied by means of strips of linen, and these should be changed frequently. When there is phimosis, and every probability of the presence of chancres, the case becomes more difficult. As I have said before, were it certain that only a syphilitic chancre existed under the prepuce, circumcision could be performed at once, but when in doubt as to the kind of sores, it is better to defer the operation and inject under the foreskin first a weak solution of nitrate of silver, and afterwards an astringent lotion. However, if the discharge of the balanitis become very purulent and there seems a risk of phagedæna, the surgeon must take the risk and slit up the prepuce, not freely, but only enough to get it back, and apply the necessary treatment.

SYPHILITIC CHANCRE.

In the consideration of the syphilitic chancre, the first and most vital point is not to regard this lesion as a disease by itself like the simple sores, but merely as a symptom and primary manifestation of the disease syphilis. Therein lies the great importance of a correct diagnosis, which will enable the surgeon to direct his treatment, not so much to the curing of the chancre as to the combating of the disease; every point, how-

ever seemingly trivial, which will advance and facilitate the diagnosis is of enormous value, for although results do not justify us yet in asserting our treatment to be absolutely curative, yet there can be no doubt that when properly applied, and more especially when continued long enough, it goes a very great way towards mitigating and arresting the disease, not so much in the secondary as in the tertiary manifestations; but where the power of the treatment is shown to the greatest extent is with regard to the subsequent progeny of the afflicted person.

Now, to reconsider once more the symptoms of syphilis as shown in the primary manifestation of the disease—*i.e.*, the syphilitic chancre.

One of the first and most important is the length of incubation; how well Nature by this points out to us that the chancre which takes so long to appear at the point of inoculation is but the portal of entry of a disease which requires a certain time to take a firm hold of the system. One might almost think the disease unwilling to declare itself at its point of entry before overrunning the whole economy for fear of being nipped in the bud; it is better, therefore, to speak of the *length of incubation* of the disease syphilis and of *the period of latency* of the syphilitic chancre. This last varies in different cases, the chancre appearing generally from ten to twenty-five days after contamination; but I have seen instances of its remaining latent for a month or six weeks, though I cannot but regard these as exceptional; besides, they have always been very difficult to substantiate, as the patient may have had connection with

different women, and in such cases we must be always very guarded in taking his opinion as to the person who infected him. I have many times seen sores which from other characteristics, to be presently mentioned, I have set down as syphilitic, but on asking the patient when he contracted them, I have been pulled up short by his declaring the infection to have occurred a day or two previously; on closer questioning, I have never failed to elicit the confession of another connection perhaps a month or six weeks before, so that in all probability the lesions had existed for a week or two, but had not been noticed until irritated by the last connection.

This brings forward another point—namely, the very innocence of the syphilitic chancres themselves. I say advisedly, in this instance, chancres, and not chancre, for I have noticed it is always in those cases in which several primary lesions exist that so little pain or even inconvenience is caused to the patient by their presence. The single indurated chancre, which, when met with, is certainly typical, naturally makes its presence felt to the patient by its size and greater induration. I think, however, the fact of the syphilitic chancre being invariably *single* has been too much insisted on. There can be no doubt that, supposing the disease to be inoculated at the time of connection at only one spot, there will be only one chancre, as it has been proved that the inoculation of the discharge from that chancre on the same person will not produce another one. But why should not the disease have several portals of entry? Hence we so often see

several primary lesions. But the great diagnostic point between, let us say, three or four syphilitic chancres and three or four simple sores, is, that the former do not, and never can, increase in number, whilst the latter do, and will; so that we never see syphilitic chancres on the same person in different degrees of *development;* we may see them in different degrees of *healing*, for one of them may, by its very position (such as near the frænum), be liable to more mechanical irritation than the others, and so take a longer time to heal. With regard to the disease having several portals of entry, it must be remembered that syphilis is more often communicated to the man through secondary, rather than primary, lesions in the woman, and that several *plaques muqueuses* may be, and probably will be, present about the female genitals.

Now, to turn to the so-called hardness of the syphilitic chancre. As I have before pointed out, this is caused by its rapid, general, and healthy cicatrization; in fact, for the pathological study of cicatrization of an ulcer no more beautiful example could be found than the healing of one of these chancres, always supposing no outside mechanical cause to set up more inflammation than Nature deems necessary. In a large single chancre this hardening is very perceptible to the touch, but in the small herpetical-like sore, forming one of several, it is often very difficult to feel any induration. Between these two extremes there are many gradations, one, which is not easy to detect, being foliaceous induration, when there is a feeling to

the surgeon as if a small leaf were just under the ulcerating surface. An important diagnostic sign with regard to the induration of the syphilitic chancre is that the hardening, to whatever degree it exists embraces the whole chancre, raising it thus above the surrounding tissues, the extent of the raising being naturally in proportion to the amount of the basic cicatrization, which more especially constitutes the hardening. It never seems to be endeavouring to sink into the tissues like the doughy hardening of the simple sores; on the contrary, one almost seems to be able to lift a typical syphilitic chancre from the structures beneath it, and, by a little stretch of the imagination, for it to be possible to completely amputate it with one stroke of the knife without any deep dissection, such as would be necessary with a simple sore.

It must be remembered that the syphilitic chancre begins as a papule, or, rather, as a conglomeration of several papules. It is not often the surgeon has the opportunity of seeing this, for the formation of the little group of papules, and its subsequent development into the chancre, causes so little (if any) malaise (not to say pain) to the patient, that it is but rarely noticed, particularly as the whole process would take place some weeks after a suspicious connection, at a time when most persons would imagine all danger of infection to have ceased, and consequently would not be constantly on the look-out for the appearance of venereal disease.

From the contemplation of the sore itself, the surgeon naturally turns tho te patient's groin, and

here he will find *the* most important diagnostic sign. He may be puzzled about length of incubation, number of sores, induration, &c., but in the groin he will find the key to the difficulty of giving a definite opinion as to whether the chancres are simply local or syphilitic. With the syphilitic chancre there is *always something* in the groin: the glands are *always* enlarged, the enlargement being generally indolent; they feel under the fingers like a chain of marbles, more or less hard; this, it seems to me, is evidently caused by the *passage of the disease*, not by the mere irritation of the chancre, as with simple sores. The disease syphilis, on its way to the system, leaves in these glands, the first it meets with, a specific deposit, which causes them slowly and chronically to enlarge, for the number of glands affected and the size they reach is not at all in proportion to the size or inflammation of the chancre or chancres. It is but rarely an abscess is formed in the groin; when suppuration does occur, it is invariably very superficial, and the abscess is small, and heals very readily after having been opened. I have often remarked, however, in many of these cases that, even when suppuration seemed imminent, it has suddenly disappeared, no abscess has been formed, and the glands have returned to their former indolent hardness. I thoroughly believe that in all cases the suppuration in the groin with a syphilitic chancre is caused by some mechanical irritation, which has nothing at all to do with the disease itself.

I have before made mention of a species of uneasiness which comes over the patient during the period

of latency of the syphilitic chancre. This can scarcely be looked upon as very important in a diagnostic point of view, as it is nearly always very slight, both in extent and duration, and generally escapes notice; but having once remarked it, I have taken more pains to elicit any signs of it, and have been almost surprised to have found it more often than I at first expected. This feeling may be described as a sensation of being thoroughly ill during two or three hours or more, without any assignable cause, which sensation as suddenly passes off. The time it comes on varies, but, as far as I have been able to observe, it approaches nearer to the appearance of the chancre than to the moment of infection—roughly speaking, at about two-thirds of the period of latency.

It is evident that balanitis can but rarely accompany a syphilitic chancre; the slight discharge from the chancre itself would not cause it; and if the balanitis were contracted at the same time as the syphilis, it would—at least, in those who are cleanly or who undergo treatment—be cured before the chancre appeared. So the balanitis would, in nearly all these cases, be the effect of a connection subsequent to the one which inoculated the chancre; and, to repeat what I have advanced before, it is in these instances that the surgeon may circumcise at once, if phimosis exist, always providing he can be certain there are no simple sores co-existing with the syphilitic chancre.

Secondary Symptoms.—The study of the secondary symptoms is of vast importance, as in a large proportion of cases it is only on their appearance that the patient seeks advice; the primary lesion having been such a

trivial affair that a false security has been not only entertained by the sufferer, but fostered also in some instances by the surgeon; so that many people are quite astonished when the eruption, mucous patches, &c., are ascribed to the innocent-looking, painless, and easily healed sore, or sores, which had made a fleeting appearance some weeks previously, and which, perhaps, had been regarded merely as herpes.

The secondary symptoms of syphilis may be regarded broadly as eruptions, which appear on the surface, and remain on the surface, having no tendency to burrow or to destroy any tissue but that superficial to them—that is to say, the epidermis, as is seen by the desquamation that takes place, and therefore, leaving no scars, but occasionally slight stains, in contradistinction to the tertiary manifestations which, although in many cases also eruptions, always have a tendency to burrow and destroy the tissues beneath and around them, often running to suppuration and leaving considerable scars.

The secondary eruption on the skin takes the form of a squamous or papular erythema, having well-marked characteristics of its own, the principal and most important being the peculiar coppery-brown colour of the spots which, when once seen, can never be mistaken for anything else; but this distinguishing hue, in some cases, only shows itself some little time after the appearance of the rash, especially when this last is very diffuse. These spots are just below the surface of the epidermis, which they cause to desquamate; and even when they begin as a kind of papule, they rarely seem absolutely to form a real "pimple,"

nor to be raised at their edges or centre ; they have no tendency to inflame or to burrow, but fade away on the surface, and this is even the same in those rare cases where the eruption begins in a very modified vesicular form. During the process of desquamation, several of the spots may coalesce and form a large patch (this, as far as I have remarked, is more especially when part of the eruption is seen on the face, though the appearance of the secondaries on this locality is comparatively rare, luckily, perhaps, for the person affected, but, without doubt, unluckily for the rest of humanity). The colour of these patches has been compared by some authors to that of ham, but this peculiar shade is more marked in some of the tertiary manifestations. If the pressure of the finger be applied to the spots, they may be caused nearly to disappear, but not quite, as a more or less dark stain will always be left. The eruption gives rise to no itching nor pain, and, except in a few cases, to which I shall presently allude, to no fever. It must be remembered, however, that in positions where the eruption would be exposed to the irritation of friction, or of natural discharges, there may be a good deal of itching, or even pain. This is seen between the thighs, or in the armpits, &c., and also in mucous patches, about the arms, or the corners of the mouth, &c. The absence of itching, with the eruption, is very characteristic of syphilis.

A vast amount of names has been given by writers to secondary syphilides, but I think they can all be resolved into roseolæ and erythemata which may be squamous or papular ; the seat of their appearance,

and the different amount of irritation to which they are subjected, producing various modifications.

The so-called mucous patch (*plaque muqueuse*), though undoubtedly papular, must, however, be considered apart, as it possesses characteristics different to other secondary symptoms. One of these is evidently, as its name implies that it is, seen nearly always on mucous membrane or on skin which is in immediate continuation with mucous membrane. The skin, which forms an exception to this rule, is generally very thin and delicate, such as that of the penis and scrotum. Another, and undoubtedly the most important, property of the mucous patch is, that it secretes a glairy fluid, which is highly contagious, giving rise to a syphilitic chancre in another person, though quite innocuous if inoculated on the same individual. Indeed, as I have remarked before, it is certainly through these mucous patches that syphilis is generally propagated, especially from the female to the male, as they so often appear about the female genitals, and, unless irritated by neglect and dirt, give rise to very little inconvenience. Their diagnosis in this situation is not always very easy, particularly when no other symptoms seem to co-exist; and they may be supposed by an unwary practitioner to be simple (or so-called soft) chancres; this mistake I have known to happen. Mucous patches, too, if exposed to irritation, are apt to ulcerate in a kind of indolent manner, as is seen sometimes on the tonsils. They also give rise to indolent glandular enlargements in their vicinity, such as those of the occipital, sterno-mastoid, and other glands. A form of secondaries,

which is very rare, is that which is called the pigmentary syphilide. It is a rash, of a dirty, yellowish-black colour, and, I believe, has only been noticed in women. It appears about the neck, and gives the appearance, at first sight, of the skin being very dirty and requiring a good washing. I recollect, many years ago, having a case pointed out to me by my late father, and since that time I only remember to have seen two other instances.

Secondary symptoms on the skin show themselves from four to eight weeks after the appearance of the primary lesion. Mucous patches are rarely seen before the skin eruption. When they are present, the surgeon can nearly always detect, by close examination, some symptom on the skin of some part of the body, if only one or two spots, which, in these cases, are generally found, I think, either on the abdomen or the flexor surface of the forearm. However, I have seen cases where the *plaques muqueuses* have been indubitable, but where the most thorough search has failed to bring to light the slightest specific spot on the skin.

The seat of the skin eruption is, in order of frequency, the lower two-thirds of the chest, the abdomen, the front of the thighs and legs, the flexor part of the forearm and arm, the back of the neck, the scalp (especially at the beginning of the forehead), the posterior part of the thighs, the nates, the posterior part of the legs, the back, the posterior part of the arms, the face. The so-called psoriasis of the palms of the hands and soles of the feet, is, as far as I have remarked, of a later date, and is more coincident with the *plaques muqueuses*.

The more scanty the eruption the more it is confined to the first few places enumerated. When abundant, it may embrace them all, though rarely extending to the face. On the scalp, though beginning in the same way as on other parts, it may become much modified by the dryness of the epidermis and the irritation set up in the roots of the hair, so that thick crusts may be formed. This, too, very often causes the hair to fall off, though in nearly all cases we see the hair grow again when treatment has got the syphilis under control, showing the alopecia to be caused, not by any destructive ulceration about the roots of the hair, but merely by irritation. The same remarks apply to the falling of the beard or eyebrows; indeed, the secondaries, when they do appear on the face, seem to have almost a predilection for the parts where the hair grows. The thickness of the epidermis on the palms of the hands and soles of the feet also causes the eruption on these parts to be very persistent and refractory to treatment.

It must be borne in mind that one of the most valuable diagnostic signs of the secondary eruption is its long duration, which may be of two or three weeks, and often more; a point to be recollected is, that this duration is not caused by the permanence of the same spots, but by a successive arrival of fresh spots, which appear whilst the first ones are fading, and these subsequent crops are by no means certain to be of the same variety as the one first seen, the latter may be a simple roseola, the former may be essentially papular. Syphilides are often symmetrical on both sides of the

body. Some authors have laid much stress on this circumstance, especially with regard to the mucous patches, being inclined to put it forward as a distinction between secondary and tertiary symptoms; as far as my own observations go, I must say I have failed to notice this symmetry of the secondaries sufficiently often to make it in my mind of importance in the diagnosis.

The most common situations for mucous patches are the lips (sometimes extending on to the face), the tongue, the hard and soft palate, the pillars of the fauces, the tonsils, the pharynx, the penis (both mucous membrane and skin), the scrotum, and the anal regions (both mucous membrane and skin), the labia, and os uteri in the female. It is about the anus and labia that the really papular form of the *plaque muqueuse* is well shown as condylomatous masses which are generally concomitant with neglect and dirt.

The mucous patch, or *plaque muqueuse* is absolutely pathognomonic of syphilis. Difficulties of diagnosis, and sometimes mistakes, may arise with regard to the primary lesion, and even to some of the secondary and tertiary manifestations, but the instant the mucous patch is recognized, doubt can no longer exist; other diseases may occasion ulcerations and eruptions, but nothing but syphilis produces the flat, red, slightly discharging, indolent-looking *plaque muqueuse*, which is, as it were, an eruption without being a rash, and an ulceration without being an ulcer. This applies more particularly to those which may be correctly termed *mucous* patches, that is to say, which are situated on the *mucous* membrane; when the

plaque muqueuse appears on a cutaneous surface, such as in the vicinity of the anus and female genitals, it takes a decidedly papular form, the papules having a great tendency to conglomerate; this too is very characteristic of syphilis, but hardly so absolutely pathognomonic as the *mucous* patch on *mucous* membrane.

Before leaving this short account of secondary symptoms, it may be as well to say a few words about what is called "syphilitic fever." I think the term "fever" too severe, for with the exception of the rise in the temperature, most of the ordinary pyretic symptoms are conspicuous by their absence. "Syphilitic fever" occurs a few days before the evolution of the rash; it is not by any means a constant precursor of the secondary symptoms, and is much more commonly seen in women than in men, and amongst the latter nearly always in those of a highly strung nervous temperament; in fact it may be regarded as almost essentially a nervous disorder. The most constant symptom accompanying the rise of temperature is intense headache, which may be paroxysmal, and is generally more intense at night, the tongue keeps clean, there is rarely any digestive derangement, and the urine remains normal; there may be flying pains about the limbs and joints. Rare cases have undoubtedly been seen in which the "syphilitic fever" has proved severe enough to be mistaken at first for one of the exanthemata, but these are certainly exceptions; all doubt, of course, would be cleared up when the specific rash appeared, or even before, by the inability of quinine to allay the feverish symptoms, which

can only in these cases be grappled with by specific remedies; a better name than "syphilitic fever" would be "syphilitic migraine."

Tertiary Symptoms.—In turning from the secondary to the tertiary manifestations of the disease syphilis, it must not be imagined that any such sharp line of demarcation can be drawn between them as between the primary lesion and the secondary symptoms, especially with regard to the period of the appearance of the tertiaries, which sometimes are seen immediately after the secondaries, though generally they remain latent for months or years; in the former case the secondaries almost seem to merge into tertiaries, in the latter all signs of the disease disappear, and the patient thinks himself perfectly well, and gives up all treatment, only to be most disastrously reminded of his mistake after a variable lapse of time; for, as far as I have observed, these late tertiaries, occurring in patients who have utterly discontinued treatment after the disappearance of comparatively mild secondaries, supply the worst and most obstinate cases, with the exception of those very rare instances of what has been termed "malignant syphilis." In tertiaries is seen the most malignant, destructive, and rebellious part of syphilis, and the surgeon who wishes to cope successfully with the disease must at the very onset look far beyond the primary chancre and the secondary symptoms, which, he must always bear in mind, are but feeble antagonists compared to the tertiaries with which he really is battling all the time; for it is to the suppression, or at any rate to the great mitigation of these last, that all his treatment really tends.

Tertiaries are essentially destructive to the tissues in which they appear, having a tendency to extend by ulceration and loss of substance, not only laterally, but also deeply, in contradistinction to secondaries, which, as a rule, remain on the surface. As the "plaque muqueuse" is typical of secondaries, so the "gumma" is typical of tertiaries. Experiments and observation have proved that the tertiaries do not reproduce syphilis either by inoculation or by contagion. It must be remembered, however, that the experiments have necessarily been very restricted, and have only, as far as we know, taken place in cases of absolute, or what may be called "late tertiaries." I have only just pointed out that secondaries seem sometimes to merge into what may be regarded as "early tertiaries," the non-contagious nature of which might be open to some doubt. However, the two types, the *plaque muqueuse* and the "gumma," certainly exhibit the wide difference of the former producing syphilis if inoculated on another person, whilst the latter does not.

It is convenient to consider tertiaries under the two aspects of "early" and "late," but no hard-and-fast rule can be made as to their appearance in this order, for many exceptions occur, such, for instance, as those in which the gumma, which is generally regarded as the latest tertiary manifestation, has appeared very soon after the secondaries. Under the head of early tertiaries, may be mentioned the pustular eruptions known as syphilitic impetigo and ecthyma; indeed, these might almost be regarded as late secondary eruptions, and form a kind of connecting link between the papular secondaries and the

gummatous tertiaries; between the two may be placed syphilitic rupia, after which appear the later tertiaries, generally designated as tubercular syphilides (a bad name, which is advantageously replaced by that of superficial gummata), and last of all the true or deep gumma. All these may merge into one another, especially the two last, but the later the manifestation in the order I have mentioned the more rare and isolated are the patches of eruption, and the more severe each individual patch; for example, there may be a large surface of syphilitic impetigo not causing much destruction of tissue, but gummata are not seen in large quantities, though each individual gumma sets up a large amount of ulceration and destruction of the surrounding parts. The pustular eruptions, impetigo and ecthyma may appear soon after the secondary stage, more especially the impetigo, authors generally agreeing that ecthyma is a somewhat later manifestation, confined to cachectic subjects; neither, however, may show itself for a year or two. The rupia comes still later. The syphilitic nature in all of these is often well marked by the "ham" colour described by Fallopius. These eruptions are not more common on one part of the body than on another; they are often very obstinate to treatment, and last a long time, not unfrequently leaving scars.

The deposit of gummatous matter in the layers of the skin forms the tubercular syphilide, or superficial gumma. When the deposit takes place deeper in the subcutaneous areolar tissue, a true or deep gumma is the result. The great characteristic of the

gumma is its destructive power, not only to itself, but to the surrounding tissue, always therefore leaving scars. Under mucous membrane the evolution of the gummatous material is still quicker, and its destructive powers still greater, leaving great gaps, such as those seen in the palate, nose, &c., or forming bands of cicatricial tissue, and causing stricture, such as that of the rectum.

It would be beyond the scope of these notes to enter fully into the description of the evolution and course of gummata, it will suffice to explain that when the gummatous material is deposited it generally goes through the stages of softening, ulceration, and lastly of reparation, the time occupied by each stage (especially of the last) being variable; sometimes, however, gummatous tumours disappear by a process of re-absorption.

It is essentially in the tertiary stage of syphilis that phagedæna is met with; as I have before pointed out, the primary manifestation of the disease very rarely becomes phagedænic; a vast majority of the cases quoted as phagedænic syphilitic chancre being probably either phagedænic simple (soft) sores, or tertiary ulcerations of the penis. It must be remembered that the evolution and course of nearly all tertiaries constitute in themselves a process of phagedæna, which may be augmented and rendered more intense by a variety of causes, one of the most powerful being undoubtedly the constant abuse of alcoholic stimulants, whilst amongst others may be cited advanced age, mental worry, exposure, and physical privations.

Gummata, and gummatous deposits, are not by any means confined to the skin, but may be met with in any part of the economy, often giving rise either by their ulcerative or their pressure effects to obscure symptoms, principally in those cases in which no skin affection co-exists; thus, in the lungs, the pericardium, the viscera (especially the liver), the blood-vessels, the nervous system generally, the spinal cord, the brain and its coverings, syphilis in its tertiary stage may produce lesions, the diagnosis of which is always surrounded by difficulties. But whilst admitting that many of these obscure symptoms (particularly the ones connected with the nervous system, spinal cord, or brain) may often be traced, and rightly ascribed to the poison of syphilis, yet it seems to me that often the evidence of their being syphilitic is very scant and problematical; there is a tendency to put all cases of obscure brain disease down to syphilis; the patient is questioned as to his having remarked any venereal affection, he may indistinctly remember to have had sores on the penis, he may not recollect any secondary symptoms, or even he may only confess to have had a discharge; nevertheless, his case is considered at once as one of tertiary syphilis—nay, more, I have read cases reported as tertiary syphilis in which the patient has absolutely denied ever having had any venereal disease whatever. On what then was the diagnosis founded? Was it because the symptoms were mitigated by the administration of iodide of potassium? But it must be borne in mind that this salt can exercise its absorbent and alterative qualities on the system in morbid conditions which

have nothing to do with syphilis, such as bronchocele, scrofulous enlargement of glands, &c.; so that I think it is well not to ascribe cases to syphilis, unless absolute proof be forthcoming of the existence of that disease in the system; and still further, that the mere fact of patients having had syphilis, does not always warrant the sweeping manner in which all obscure symptoms in after-life are sometimes put down to that disease. Of course the diagnosis is surrounded by fewer difficulties in tertiary affections of the bones, joints, epididymis, testicle, genitals, tongue, pharynx, larynx, &c., and it is amongst these as well as on the skin, that the destructive and phagedænic properties of gummatous deposits are most frequently seen, accompanied occasionally by an utter indifference to specific treatment.

Before alluding to the prognosis of the tertiary symptoms of syphilis, it may be as well to consider that of the secondary symptoms. Now the prognosis of secondaries merely as the secondary manifestations of the disease syphilis is good: they will certainly disappear, one may almost say, without treatment; but the prognosis of secondaries with regard to the disease syphilis itself (that is to say, with regard to the subsequent appearance of more or less severe tertiaries) is quite a different question, and, if favourable, must I think be founded on a sufficient duration of proper treatment, and also on the patient's constitution. The prognosis of tertiaries is a still more delicate point, and a favourable view must again be largely based on a sufficient duration of proper treatment during the two

first stages of the malady, and also on a healthy constitution. One of the most unfavourable signs in my opinion in the tertiary stage of syphilis is an utter indifference of the symptoms to specific treatment. No definite prognosis can be given with regard to the reappearance of tertiaries after a first manifestation. There is a form of what may be regarded as very early tertiaries which is called malignant syphilis, and in which the prognosis is most unfavourable; this form, luckily very rare, is characterized by a confluent ulcerative eruption, which invades all parts of the body, and is most rebellious to treatment, so much so, that the patient absolutely dies of exhaustion.

Treatment of Syphilis.—After having glanced, in a necessarily somewhat cursory manner, at the primary, secondary, and tertiary stages of syphilis, I will now consider the momentous subject of the *treatment*, not so much of any one of the stages individually, but of the disease syphilis itself; for the one great thing for the surgeon to invariably bear in mind whether either the primary, secondary, or tertiary symptoms come under his notice is, that whilst endeavouring, with all his skill, to alleviate the symptom in view, he must never lose sight, for one moment, of the all-important fact of having to deal with a constitutional disease (syphilis), to the combating of which all his greatest efforts must be directed, so that when he sees a syphilitic chancre, his first duty is to impress most strongly on the patient that treatment (constitutional, not local) in order to be efficacious, must be continued for a long

time, eighteen months, two years, even more, continued long after all external symptoms have disappeared, after the chancre is healed, after the secondaries have faded away. It is very often a most difficult task to persuade patients of this necessity; the chancre is so small and easily cured, the secondaries are so evanescent, the sufferer (who really has not suffered) imagines, he or she, is well, treats the surgeon's advice lightly, and does not follow it, or even, perhaps, thinks mercenary motives are at the bottom of the cautions to prolong the treatment; then, after a variable lapse of time, other symptoms appear; the patient recommences treatment, though with less benefit than if it had been steadily continued at first, and probably leaves it off again as soon as the visible signs have gone; even in some instances the surgeon, or the little treatment which has been followed, gets blamed, or perhaps both.

The only remedy for syphilis is *mercury;* this assertion has been contested by many, but, after standing firm against innumerable attacks, it has come out triumphantly at the present time as an almost undisputed fact. And how does mercury act on the disease? To this question may not the following answer be made: "Not only as a remedy, but almost as an antidote, by destroying the bacilli of syphilis." At the present time this assertion is mainly based on theory, but I think we may still go farther and consider, or at least hope, that the period is not far distant when the duration of the specific treatment (*i.e.*, the administration of mercury) will be determined by the dis-

appearance of the syphilitic bacillus from the patient's blood.

It is customary to regard iodide of potassium also as a specific in syphilis; this, I think, is a mistaken idea: iodide of potassium should be looked upon as a most powerful adjunct to clear away the effects of the disease, of which mercury has destroyed the poison. This is all the more apparent if it be remembered that iodide of potassium is of greatest value in the tertiary stage of syphilis, when it may be supposed that the bacillus is no longer in a vital state, as the disease cannot then be communicated to another person by inoculation; iodide of potassium acts by its absorbent and alterative qualities, this being especially seen in the gradual disappearance of gummata, under large doses of the salt; to put the point in a homely way, the iodide of potassium may be considered as a kind of scavenger, to remove the refuse of the disease.

Taking then, as granted, the different actions of the two drugs to be used in the treatment of syphilis (mercury, a specific, and it may almost be said an antidote, iodide of potassium an absorbent, alterative and "scavenger"), it will be evident that it should be more advantageous to administer these remedies separately (that is to say, not in the same mixture). Let each act by itself. We cannot be positively certain of the chemical changes which take place amongst drugs which are administered together when they are absorbed into the system, therefore in combining mercury and iodide of potassium in one draught we cannot be sure of the effect produced by either;

this has often struck me when I have seen the very common prescription of liq. hydrarg. perchlor., and iodide of potassium; the good effects of which I have remarked more when absorbent properties were necessary, than when any specific action of mercury was required, so I should think, in such a preparation the iodide of potassium would tend to neutralize any specific action of the mercury. Mercury then should be administered by itself in syphilis, that is to say, as the metal, or as any one of its pharmaceutical salts; iodide of potassium may, if necessary, be given at the same *period* of the disease, but not in the same preparation, nor at the same time of day. However, if what I have just said, concerning the different action of the two drugs be borne in mind, it will be seen that iodide of potassium being principally of service during the tertiaries, when, though it is sometimes, but not always, necessary to administer mercury, the taking of the two remedies, even at the same period of the disease, is not often indicated. As far as I have observed, it seems a sort of hard-and-fast rule that the treatment of primaries should be mercury, combined even sometimes with iodide of potassium; that of secondaries, the two drugs united; and that of tertiaries, iodide of potassium alone. This routine, though in the main based on sound clinical observation, must not be allowed to altogether influence the surgeon. He must always bear in mind that mercury is his sheet-anchor, whilst the iodide of potassium is but an adjunct. The administration of the latter in primaries I certainly never think necessary, but I have found it of value in

the secondary stage, though only for the treatment of the essentially papular *plaque muqueuse*. For the tertiaries its use is of great service, as its "scavenger" properties are then brought into play, but in obstinate tertiaries the surgeon must not hesitate to begin another course of mercury, acting on the theory that the bacilli of the disease have not completely been destroyed.

The great and all-important point, however, which has no reference to the stages of the disease, which the surgeon should always have present in his mind, and which the teacher should never be weary of repeating, is, that the treatment by mercury should be continued for at least eighteen months, and, if possible, for over two years, from the beginning of the disease; and this treatment, to my mind, has for its object to so destroy the disease itself as to mitigate, or altogether prevent, the *tertiary* manifestations. For my own part, I do not believe that *secondary* symptoms can *ever* be prevented by treatment; were it so, would it not be evident that the disease was at an end, and that any further administration of mercury would be of no use? It always seems to me that the cases in which this prevention has been supposed to take place must have been instances either in which simple (or soft) sores have been mistaken for syphilitic, or in which the secondaries have been so slight as to escape detection. As to simple sores being mistaken for syphilitic ones, I have pointed out before, there is often a kind of doughy induration about simple sores which, as induration is looked upon, I think, to a too great extent,

as *the* symptom of a syphilitic chancre, has led to the mistake. The conclusive proof needed for the possibility of there being an abortive treatment of syphilis would be to take a series of cases in which inoculation from the sore on the same person had produced no effect (in order to be sure the chancre *was* syphilitic), and then see whether the administration of mercury would prevent in any one of the series the appearance of secondary symptoms. With regard to the secondaries being slight, it must have struck every surgeon how difficult it is in some cases, when there has been no doubt as to the chancre being syphilitic, to find the secondary rash; but, on careful examination, he will always detect *something, if only one or two spots;* and, in my own experience, this difficulty by no means happens in cases which have been treated from the very beginning, but very often occurs in those which have undergone no treatment whatever; whilst, on the contrary, I have seen many cases, which have been treated most carefully from the first, in which the secondary manifestations have been very severe. I, therefore, do not think the treatment, which, we must remember, to be efficacious for after-life, must extend over two years, can have much effect on the more or less severity of the secondary symptoms (that occur within two or three months), which seems to me to depend more on some idiosyncrasy of the patient.

Having now considered generally the treatment of the disease syphilis, it will be as well to point out more in detail the remedies to be administered at the different stages of the malady. The first idea which

may arise in the surgeon's mind at the sight of a syphilitic chancre (on the principle that prevention is better than cure) is that of excision. In my opinion, it is an idea which had better be banished for ever. How can a disease be cured by removing a symptom, even supposing that symptom not to return? Does not the very fact of the length of incubation, together with the glandular enlargement, point out that the disease syphilis has invaded the system before even the chancre appears? One might as well propose to cure, or prevent, scarlet fever by the excision of the inflamed tonsils. I have heard it gravely argued, with regard to the excision of a syphilitic chancre, that the method should not be employed excepting in cases where the chancre was on the prepuce, or, at least, in a situation where the excision would leave no great scar. Does not this argument militate against those who advocate the procedure? For if excision of the syphilitic chancre prevented, or even gave a chance of preventing, the system being invaded by the disease syphilis, how gladly would every patient have it done, without regard to any question of scars?

When a sore has been diagnosed as a syphilitic chancre (and this, though often difficult, may be simplified by strict attention to the various indications which I have before mentioned), the surgeon's first duty is at once to begin the mercurial course, and at once to impress on the patient the necessity of continuing the treatment for about two years. No set rule can be laid down as to the preparation of mercury which is to be employed. The great thing

is to administer the metal in the form and in the manner most suitable to the individual case. All the pharmaceutical preparations of mercury are excellent; all the modes of giving it are good; but, as the treatment must necessarily be continued for a long time, the surgeon must find out, not only the form of the drug most suitable to his patient's constitution, but also the manner of its absorption which is the least unpleasant to the sufferer; for we can hardly expect a person to continue during two years taking a remedy which is nauseous to the taste, or whose application gives rise to a good deal of trouble. It is for this last reason that I very rarely prescribe inunctions; not only are they dirty, but their use takes time, and gives rise to much worry. There is no doubt, however, that, in some rare cases, mercury is borne better with them than with any other mode of administration. It would then, of course, be the surgeon's duty to advise their use. The same remarks apply to subcutaneous injections, without, however, the dirtiness, the absence of which is counterbalanced by the danger of the formation of an abscess at the place of injection, and by the pain accompanying the introduction of the needle, which, though slight, is still sufficient to make some people dread the operation. It must be remembered, however, that by this method the effects of the metal are very quickly produced, and are very much under the surgeon's control, so that, in some cases, these subcutaneous injections may prove useful, but, in my opinion, should only be continued for a short time. Indeed, both inunctions and subcutaneous injections

are very excellent ways of beginning the treatment; but, in order that the patient may continue taking the metal after all external symptoms have disappeared, the practical surgeon will, in almost all cases, find it necessary to revert to the method which is the easiest and least unpleasant for the patient, though, perhaps, not so much under control—viz., that of absorption by the mouth.

In whatever way mercury is administered, it should be given cautiously, and its effects watched. It is a sad mistake to push it too far. At the first signs of any poisoning of the system by the drug (*i.e.*, salivation and sore gums), it should be stopped, but, of course, only for a time. These signs show us that the remedy has outrun the disease, but not, by any means, cured it. If, on the resumption of the treatment, salivation, &c., comes on again in a short time, another preparation of mercury, or another method of exhibiting the metal, should be tried; for, undoubtedly, the best treatment must be that one which holds the syphilis without giving off to the system any waste of mercury.

For two reasons, it seems to me, that syphilis is one of the most difficult diseases to treat. In the first place, there is the difficulty of persuading the patient to go on with the remedy for a sufficient time after both the primary lesion and the secondary symptoms have disappeared, and he feels perfectly well; in the second place, there is the difficulty of keeping the mercury within bounds, giving not too little, but just enough to wrestle with the malady, and only that—in fact, to put it broadly, "not too much

mercury, but just mercury enough." Whatever be the method employed, it certainly should be the one which suits the patient best in every way. I certainly do not believe in always increasing the dose to a large extent because the symptoms are severe. On the contrary, the severe symptoms seem to me but an extra effort of Nature to throw off the disease; and I have often remarked, in such cases, how much more easily people are salivated (this applies only to the secondary manifestations). It is well, therefore, to remember the Italian adage, "Chi va piano va sano," and not deluge the patient with a large excess of mercury because the symptoms become more alarming. The dose may, perhaps, be a little increased, but with great caution; and the surgeon must never lose sight of the general health, which should be kept up and improved, in order to give the strength to bear the battle which is going on within the system.

The preparations for inunctions most used are the ordinary mercurial or blue ointment and the oleate of mercury; about a drachm of either may be rubbed in to any part of the body where the skin is thin; this may be done once a day or more, if the surgeon deem it necessary, but the effects must be watched carefully. Various salts of mercury held in solution have been subcutaneously injected by different surgeons; the objections to this mode of administering the metal in a treatment which must be continued for a considerable period of time seem to me: the pain and inconvenience to the patient, the necessity of the presence of the surgeon to perform the operation,

which, though trivial in itself, must be looked forward to by the patient with a certain amount of dread; the danger of the formation of a slough or abscess. However, in some exceptional cases, the subcutaneous injection may be of service, especially in those where the surgeon thinks it necessary to employ the drug powerfully and quickly; but when the crisis is passed he should return to the administration by the mouth in order to continue and perfect the treatment.

For this, I say again, no one preparation can really be said to be very much superior to another; all the combinations of mercury which can, according to dose, be absorbed into the system through the mouth are excellent; but it is the surgeon's duty to find out which one suits the individual patient he is treating; not only the one which most evenly balances and eliminates the symptoms without going beyond, but also the one which is most easily and pleasantly absorbed; for, I repeat, the surgeon will rarely, even in the most educated persons, be able to persuade the patient to continue the treatment for months and months after all visible symptoms have disappeared, unless that treatment be, comparatively speaking, easy and pleasant; therefore, when the preparation of mercury is found which in the surgeon's opinion is most suitable to the case it should be given in the smallest possible pills, which the patient can then even carry about in his pocket without inconvenience.

The local treatment of the sore itself is generally a very simple matter; in a large proportion of the cases where several small sores are present no local applica-

tion is really necessary, as they heal readily under the constitutional treatment, or even without it. How many instances are seen (especially in women) where the patient applies to the surgeon only when the secondary symptoms appear, the sores themselves having given little or no inconvenience, and the slight scars left by them being very difficult to find; still a lotion should always be given for application when the case is seen before the sores are healed, as its use not only promotes habits of cleanliness and removes any slight discharge which may exist, but also eases the mind of the patient by the proud consciousness that he is doing something besides taking a few inoffensive-looking pills. In cases of one typical indurated chancre a lotion is always necessary. It is very useful sometimes to dust the chancre over with calomel powder; this is more particularly the case in women, in whom it is rather difficult to keep a lotion applied. The best lotion is most certainly the ordinary black wash. It should be used in the same way as I have described for the simple or "soft" sores, but the application is always very much more easy to the syphilitic lesion, as there is rarely any pain in drawing back the foreskin except when the chancre is on the frænum, in which position it often heals with difficulty, owing to the mechanical irritation. I have so often seen a syphilitic chancre in this situation, which has obstinately refused to improve, heal rapidly and without any trouble when the frænum has been divided, that I am much inclined to advise that procedure whenever I see an angry-

looking syphilitic chancre in that position; for, whereas simple sores on or about the frænum would soon destroy it, a syphilitic chancre takes a considerable time, and gives rise to a great deal of pain before it cuts through the "bridon," and often has a great tendency to merely burrow under it.

How well a chancre of the urethra shows what an innocent thing a syphilitic sore really is; what havoc a simple or "soft" sore would make in this situation; and yet we see the urethral syphilitic chancre heal up rapidly, being hardly influenced by the irritation of the urine, which is constantly passing over it.

If the granulations of the primary lesion become excessive, they should be lightly brushed over with nitrate of silver, but the thorough cauterization, which is so often necessary for the simple or "soft" sores, is never required for the syphilitic chancre, except in those rare cases in which it becomes phagedænic, when the local treatment would be the same as when simple sores are similarly affected, being directed against the phagedæna, not against the syphilis; this last, of course, should never be lost sight of, though the patient's constitution should at the same time be fortified by tonics and generous diet.

The hard, marble-like glands in the groin may be painted with tincture of iodine; if they become painful they should be poulticed, not with the idea of favouring suppuration, but merely to allay the pain and inflammation, and it is wonderful how rarely an abscess is formed in these cases; the glands are swollen, may be very painful, and even the skin may

get a little red, but over and over again I have seen these symptoms go away as if by enchantment under poultices, which one would imagine apt to bring on suppuration. When the small superficial abscess *does* form it should be opened, and after the pus is evacuated the wound heals easily, never giving the trouble of a bubo produced by simple sores.

The treatment of the secondary symptoms consists in the continuation of the mercury. It is specially during severe skin eruptions of this period that the mercurial vapour bath is so very useful. *Plaques muqueuses* should be lightly brushed over with nitrate of silver. I have often remarked that patients with mucous patches about the throat, mouth, or tongue are very intolerant to mercury: salivation &c. very soon sets in; for these cases, and in these only during the secondary stage, the administration of iodide of potassium is indicated, though the mercury should be continued, but in very small doses; neither is it necessary to give the iodide of potassium in the large doses often requisite in the tertiary stage. When the skin eruption is very severe, it is as well to combine the mercury with arsenic, and Donovan's solution is of immense service.

The application of ointments to *plaques muqueuses* about the genitals, or to papular eruptions of the skin, has a very salutary effect; the best ointments for this purpose are the calomel ointment and the ung. hydrarg. ammoniat. The use of hot-water baths should be encouraged, and when crusts form on the scalp they should be well washed with common soap and warm water,

before an ointment is applied. When the secondary symptoms have disappeared, the surgeon has to face a great difficulty, and that is, to persuade his patient to continue the treatment. So long as there is something visible on the skin or mucous membrane, the patient will go on taking his remedies, but when all these external manifestations have vanished, when he feels quite well, then he will begin to consider it hardly worth while to prolong his treatment, and it is often useless to endeavour to convince even reasonable and well-educated people that perseverance in the mercurial course for two years will give them the best chance of immunity from tertiaries, and of having healthy children in the future ; yet, hard as it is to inculcate this conviction, the surgeon's duty is undoubtedly to try his best to do so.

When tertiary symptoms appear, I think a resumption of the mercury is indicated, though the drug should be prescribed in smaller doses, and should not be continued so long as during the other periods of the disease ; it seems to prepare the way for and facilitate the action of the "scavenger," iodide of potassium ; it is during the tertiary manifestations that the latter should be administered in large doses. The tertiary is most certainly the worst and most obstinate phase of the disease syphilis, and the one which more especially wears out the patient's constitution, therefore, bearing this in mind, and also the fact that iodide of potassium in the necessarily large doses required is a very depressing remedy, the surgeon should pay special attention to his patient's general health, which should be improved and kept up as much

as possible by generous diet, tonics, and change of air and scene. To this last, as well as to the absorption of their various waters, may probably be ascribed the great improvement in many cases at the mineral springs abroad and in England.

GONORRHŒA.

GONORRHŒA consists of a specific and very infectious discharge from the mucous membrane of the urethra in man, whilst in the woman Nature, to make up for the shortness of the urethra, gives the malady the run of the mucous membrane of the vagina, the urethral discharge, when present, being probably produced by the vaginal, for the latter must necessarily come first, being the seat of the infection; so that when we find a woman with a discharge from the urethra as well as from the vagina, we may conclude she has had the disease a little longer than one in whom (*cæteris paribus*) there is only a discharge from the vagina.

The incubation of gonorrhœa varies generally from 2 and 3 to 5 or 8 days or more, but it is not often the surgeon sees a case in the out patient-room before the discharge has become purulent, that is to say 6 or 7 or even more days, after contagion; this applies to men; much longer time often elapses before women apply for relief, as they nearly all think, or say they think, the discharge is "leucorrhœa," or what is commonly termed the "whites." This mistake may, however, really happen to women who have no knowledge of having been contaminated, for the discharge in both

sexes, at the very beginning of the malady, is thin, watery, and almost white; this being accompanied by a feeling of heat and general "malaise." All these symptoms go on increasing for 2 or 3 days, the discharge passes from white to yellow and yellowish-green, and increases much in quantity, whilst, at the same time, the feeling of heat becomes a burning pain on passing water, sometimes very great, and so intolerable the patient dreads performing that function, but more often slight, or altogether absent, even when the discharge is very profuse. In the former cases a great deal of redness may be seen along the mucous membrane on separating the lips of the meatus, and the penis itself may become red, much inflamed and quite turgid, but very often in the latter cases these last symptoms are altogether absent, and one feels quite surprised to see such a thick purulent discharge show itself without those signs we are taught to associate with inflammation—namely, heat, pain, redness, swelling. Of course it is well to bear in mind that between these two extreme trains of symptoms there are many variations in different cases, but I think that, as a rule, the accompanying inflammation of the urethra and penis in gonorrhœa is not as great as the copious and virulent nature of the discharge would lead one to expect. With regard to the incubation of the disease, it is often very much longer than what I have stated above; I have seen cases where the discharge has only appeared 8 or 10 days after connection. As an example, I may quote a young gentleman under my care, who positively assured me that he had not performed the

sexual act for 15 days previous to the malady declaring itself. In another case, at the hospital, which I had been treating for simple chancres, the gonorrhœa only appeared 21 days after I had first seen the patient, or 23 days after connection, as the man stated he had certainly not laid himself open to infection since his first visit. The incubation of the disease may therefore be said to be from 3 to 15 days or more; very often from 3 to 6, rarely from 6 to 15 or more.

The diagnosis of gonorrhœa is generally very easy; the discharge caused by urethral chancre may be mistaken for it, but in the latter we have the character of the discharge, which is glairy and viscid, and does not come with a gush when the penis is pressed from behind forwards, the incubation of the disease which (urethral chancre being always syphilitic) is invariably at least a fortnight, and may be six weeks, the characteristic indolent enlargement of the glands in the groin, which on one side at least feel like marbles under the skin, in most cases the chancre itself, which very often can be seen on separating the lips of the meatus, and in some cases the localisation of the pain, whether in passing water or not, to one particular spot in the urethra; all these symptoms being absent in gonorrhœa, their presence would materially assist the surgeon in his diagnosis, whilst of course any induration of the chancre felt in the urethra, and the appearance of the secondary symptoms of syphilis, would confirm the presence of a urethral chancre. It must however be remembered that the two diseases may be present at the same time, so that an indolent glandular swelling

in the groin, with a persistent discharge from the urethra, should always be looked upon with suspicion, and a careful examination should at once be made.

After carefully comparing various statements made by patients with urethral discharges, I have come to the conclusion that there exists very often a much milder form of gonorrhœa in men, which in reality should not be given that name at all, but should be given an analogous denomination to leucorrhœa in the female, particularly as it is often caused by the presence of that discharge in the woman, and also by connection during the menstrual period, more especially when a large quantity of beer, wine, or spirits has been absorbed immediately before and after the sexual act. I find this is called by Diday, urethorrhœa. This kind of discharge comes on very soon after connection; I think I may safely say in never more than two or three days; it is soon subdued by treatment. If neglected it pursues a mild course, but if irritated by sexual or alcoholic excesses, it may develop into true gonorrhœa, and this explains some cases in which the patient is quite surprised at having a discharge, not having been exposed to infection; as, for instance, a married man. Still, however, the surgeon must accept patients' statements with all reserve, as it is very convenient for a married man to ascribe his discharge to the menses of his wife in order to hide his own peccadilloes.

The prognosis of gonorrhœa is of course favourable. A case properly treated, particularly one in which the patient observes all the hygienic measures recommended him by the surgeon, ought not to last longer than two

months, and may be well in a fortnight; by this I mean the gonorrhœa itself, for in all probability will be left behind that bugbear of the surgeon, and *désespoir* of the patient, gleet, of which I will have more to write anon. Yet sometimes the gonorrhœa itself seems to defy the surgeon, though I am convinced that in such cases the practitioner, by careful investigation and questioning, can always find that the joint in the armour is the neglect on the part of the patient of some simple precaution.

The mention of gleet as a sequela of gonorrhœa naturally leads the mind on to stricture of the urethra, but I do not believe either gonorrhœa itself or the proper use of injections to be answerable for all the strictures of the urethra, which are so commonly ascribed to one or both of these causes. I make this assertion with all reserve, but I quote from those who are eminently capable of judging, and will compare these dicta: Berkeley Hill, in his admirable work on "Venereal Diseases," says, speaking of the seat of gonorrhœa, "Beginning at the first inch of the urethra especially affecting the fossa navicularis, the inflammation spreads onwards and, though it *usually* (the italics are mine) pauses at the bulbous part, may extend through the whole of the urethra to the neck, and even the interior of the bladder." Sir Henry Thompson, in his excellent work on stricture, states, as the result of numerous observations, that stricture is more frequently met with at the junction of the spongy and membranous portions of the urethra, next about an inch anterior to this, and most rarely as far

back as the membranous portion itself; so that if gonorrhœa usually pauses at the bulbous part of the urethra, and stricture is more frequently met with at the junction of the spongy and membranous portions, it is hard to reconcile the view that gonorrhœa so often causes stricture, with the fact that the latter more frequently occurs at the point where the former usually pauses. I have had a few cases under my care of stricture caused by the incautious use of very strong injections (used, I am happy to say, without medical advice), and I have always found the stricture about an inch or two from the meatus, and I should think these cases were comparatively rare.

Other complications to be borne in mind when we consider the prognosis of gonorrhœa are: epididymitis and orchitis, urethral abscess, gleet and gonorrhœal rheumatism, and ophthalmia. I will shortly consider these in their proper place.

The Treatment of Gonorrhœa offers many difficulties; there is hardly any disease in which patients show such wilfulness, such impatience of control, and such disbelief in the remedies indicated by the surgeon if they do not at once produce a beneficial and even curative effect; and also in which the sufferer is so often induced to try remedies either pointed out by friends, or picked up in quack advertisements and pamphlets, the evils caused by which the surgeon very often has to undo before he can proceed with rational treatment, so that, as a rule, in treating a case of gonorrhœa the practitioner not only requires great tact, but also a large amount of firmness.

The remedies for this disease may be divided into two distinct categories: those locally applied, and those taken by the mouth. In my opinion and in my practice, I must say I lean towards the former, to the exclusion, if possible, of the latter. Of course, when I speak of remedies taken by the mouth, I mean those which are extolled as having a curative effect upon the discharge itself, and not those which are administered constitutionally, such as purgatives, salines, emollients, &c.

The first indication is evidently, as in any inflammation, to get the patient's constitution into the most favourable state for the subsidence of the inflammation; and here, I think, the tendency always to give purgatives and antiphlogistics is rather exaggerated; this, whilst most useful in the case of a strong, healthy, full-blooded man, seems contra-indicated in a feeble, anæmic individual, to whom a basin of good soup would be of more use than a black draught.

The local treatment should be applied at once, even if there be a great deal of inflammation and pain, either in the form of an injection, or of soluble bougies. The best plan is to use both, the soluble bougie to be introduced by the surgeon, and the injection to be used by the patient; but the graduation in the strength of the latter is the essential point the practitioner should bear in view, as at first it should be very weak, getting stronger and stronger up to a certain limit as the inflammation and discharge lessen. I have obtained excellent results from the introduction, at the very height of the disease when there is a great deal of inflammation and scalding, of Cheyne's soluble iodoform and eucalyptus

bougies, followed in a few hours by an injection, of which the following is the formula :—

℞.	Zinci sulph.	gr. viij.
	Tinct. lavandulæ co.	f℥ss.
	Aq. rosæ	f℥iv.
	Aq. dest.	ad f℥viij.

The same process to be repeated on the following day; a seidlitz powder to be taken in the morning on an empty stomach, if necessary, no stimulants whatever, especially no beer, low diet for a full-blooded man, more generous for an anæmic subject, no black coffee, rest as much as possible, the patient to wear a suspensory bandage, and of course to expose himself to no sexual excitement, but to drink emollients, such as barley-water, or any of the French "sirops," with soda, seltzer, or any mineral water. On the third day I nearly always find the inflammation has subsided, although the discharge may still be thick and abundant; I then increase the strength of the injection, and do not use any more bougies, except occasionally one of sulphate of zinc with lard; the injection then consisting of 16 grains of sulphate of zinc with ℥j of tinct. lavandulæ co., and f℥viij of aq. rosæ. In some cases where I have not used bougies, I have prescribed with great advantage an injection of permanganate of zinc gr. $\frac{1}{4}$ to the ℥. The injection before-mentioned of sulphate of zinc, gradually increased in strength, can be given very beneficially without the application of the bougies, but certainly some of the most successful results I have seen have been obtained when the iodoform bougies have been used first. The great thing, it appears to me,

is to apply the local remedies at once, even if there be a large amount of inflammation, without waiting for its disappearance under antiphlogistic treatment.

I never use nitrate of silver in gonorrhœa, I do not like to employ such a powerful caustic where I cannot watch and control its effects, especially to such a delicate mucous membrane as that of the urethra; in my opinion a very weak injection of nitrate of silver may be useful occasionally in an old gleet, but never during the course of gonorrhœa.

There are many other injections, which have been highly recommended at various times, and they all may prove of great value as a change, which will often be very beneficial: if the constant use of any one injection should fail to cure the patient in a fortnight, the surgeon should prescribe a fresh one, particularly as the urethra after a time seems to get accustomed to one substance, whilst the change may very likely effect a cure. The drugs generally used for injections are, acetate of lead and of zinc, from ½ to 3 grains to the ℥, chloride of zinc from ⅓ to 2 grains to the ℥, sulphocarbolate of zinc from 1 to 4 grains to the ℥, sulphate of copper ½ to 2 grains to the ℥, alum 1 to 3 grains to the ℥; to the injection containing many of the salts may often be added with advantage an astringent tincture, such as that of kino, or a sedative one, such as tincture of opium.

Before leaving the subject of injections, it may be well to point out that, unless these remedies be properly applied, they are utterly useless, so the surgeon should

be very careful to teach the patient the proper way to inject, and impress upon him the importance of doing it carefully and well. An ordinary glass syringe is the best, which, when filled with the injection prescribed, the patient should use, as follows :—The foreskin should be drawn back, so as altogether to uncover the glans penis (this is specially important in subjects where the foreskin is long); the nozzle of the syringe is then introduced into the urethra, the instrument being held in the right hand; the glans penis is then grasped on the syringe, as near the meatus as possible, by the thumb and forefinger of the left hand, pressure being exercised by them only to the extent of preventing any of the injection from coming out when the piston is pushed down by the forefinger of the right hand, the thumb and other fingers of that hand still holding the body of the syringe; pressure on the piston should be used gently and evenly, no force being employed. The patient's own sensations will warn him when enough of the liquid has passed into the urethra, generally about three-quarters of an ordinary syringe full; the instrument is then carefully withdrawn from the urethra, the thumb and forefinger of the left hand pressing on the meatus, and closing it as the nozzle passes out. The first time an injection is used, the patient should be told to count 50 before he allows it to escape, but subsequently, if there be no great pain, he may count 100, 150, or more. The patient should stand up whilst doing the injection, and remain so till he allows the liquid to escape.

Turning now to the remedies taken by the mouth,

one first naturally speaks of oil of copaiva, which acts as a stimulant to the mucous membranes, more especially to those of the genito-urinary organs. This drug, when deemed necessary by the surgeon, is most advantageously administered in combination with the powder of cubebs (which also stimulates the genito-urinary mucous membranes), in the form of what the French term "opiat," a kind of paste produced when ℥ss of the powdered cubebs is rubbed up in a mortar, with a sufficiency of oil of copaiva. This paste, however, has the drawback of a most nauseous taste, as have all mixtures containing copaiva; so it should be given, if possible, in gelatinous capsules. The dose of the paste itself is about a drachm, repeated from three to six times during the day.

Many attempts have been made, with but little success, to disguise the very disagreeable taste of copaiva, taken in a liquid form. The French chemists have produced, from time to time, many varieties of capsules, which have all been held forth as curative of gonorrhœa, but the form of "opiat" in capsules I have just mentioned seems to me the most rational way for the surgeon to prescribe the remedy, as he then knows exactly what he is giving, and can regulate the dose at will.

For my own part, after careful observations for some years, I have come to the conclusion that it is not always necessary to administer these drugs in gonorrhœa, unless through some special cause when it is not advisable to employ local treatment: for instance, if the patient has an attack of orchitis, of course the injections must be stopped, also in a case

where a stricture exists, the surgeon would not order injections at all. In these kind of cases one must have recourse to the administration of copaiva, particularly as one must go on with the treatment. This probably, after a time, will lead to good results, especially if combined with very strict hygiene; but, in my opinion, copaiva is of more use in gleet than in gonorrhœa. I think the drug does not produce so much effect on the thick, creamy discharge of gonorrhœa as on the thin, white discharge of gleet. A great disadvantage possessed by copaiva, besides its unpleasant taste, is the derangement it gives rise to in the digestive organs, very often producing diarrhœa, and nearly always great nausea. The administration of the drug occasionally causes also a characteristic rash. Let it not be supposed, however, that I altogether deprecate the use of internal remedies in gonorrhœa, except in cases where local treatment cannot be applied—I do not go as far as that. What I think is, that most patients can be cured by the local treatment, properly administered; but in cases where this does not produce a very marked improvement in a week or ten days, I certainly am of opinion that the internal remedies should be then commenced.

Other drugs employed in the treatment of gonorrhœa are: oil of yellow sandal-wood, which is most advantageously administered in capsules; oil of turpentine, which must be prescribed with caution; balsam of Peru, and various other so-called specifics, several of which, though employed in France and America, are but little known in this country, and of whose therapeutical action I have no practical experience.

The good effects of these remedies vary greatly in different cases, and it is the duty of the practitioner to find out as speedily as possible the one most suited to the individual patient he is treating.

In the female, gonorrhœa is much more easy to treat and cure than in men, for the whole diseased tract is more easily accessible for the application of remedies. It is for the vagina, and also for the female urethra, that I think injections of solutions of nitrate of silver are so eminently practical and of such great service. The symptoms, substituting the vagina for the urethra, are the same as in the male, but, of course, no ardor urinæ is present, except in those cases in which the urethra is involved. I think that, in women, the local inflammatory symptoms are greater than in men, for, whereas in the male, as I have remarked before, the inflammation does not always seem proportionate to the discharge, in the female the surgeon never sees a case of real gonorrhœa unaccompanied by a large amount of heat, pain, redness, and swelling; therefore, in our treatment, the extensive employment of antiphlogistic remedies is imperative, as also very strict cleanliness. Injections should be used as soon as possible, even if the introduction of the syringe does give pain, as at first a small cannula, or nozzle, can be used, which need not be introduced far; if the woman lies on her back, with the pelvis raised, and the injection is thrown in with a slight degree of force, it will certainly bathe all parts of the vaginal wall. I have found great benefit to patients by the

injection in this way of a weak solution of nitrate of silver, from two to eight grains to the ounce, this to be preceded by warm baths, saline purgatives, &c., these to be regulated by the woman's temperament. Of course, when introducing the syringe ceases to give pain, it should be pushed up nearly to the os uteri, and the injection increased in strength; but, in using it, the woman should always be told to lie on her back, with the pelvis raised, the thighs flexed on the abdomen, and the legs flexed on the thighs, the feet being fixed just outside the buttocks, in fact, in the lithotomy position, with the pelvis more raised if possible; this is most important, as it prevents the injection from escaping at once, being a parallel to the man closing his urethra with his finger and thumb. In this way a large amount of the fluid need not be used each time, an ordinary-sized female glass syringeful being sufficient. The glass syringe seems to me the best, it is more cleanly, gives a more definite quantity of injection each time of using, and is introduced more easily, and further up with less pain than any other; its only disadvantage is the difficulty the patient has in using it herself in the position I have described, but this also applies to any other syringe or apparatus. All the various substances which I have mentioned as being of use for injections into the male urethra are equally of value for the vagina, and solutions of them may be employed of far greater strength for the latter than the former. The internal specifics, such as copaiva, &c., are of no use whatever for gonorrhœa in the female, they may, however, be tried in cases where the

discharge from the woman's urethra is very obstinate and persistent, although they are but rarely necessary, as local remedies are so easily applied to the whole diseased tract.

The mode of injection of water, so much advocated by gynæcologists, is most useful in female gonorrhœa for the purpose of cleanliness. It consists in the woman lying at the edge of the bed, the buttocks projecting, each foot is supported on a chair, whilst on a small table, between the knees, is placed a pail containing the water to be injected; this is done by means of a gutta-percha tube with a nozzle forming a syphon; a mackintosh falling from the edge of the bed into a bath on the floor prevents any mess. In this way are given the warm-water injections administered for some diseases of the uterus. For gonorrhœa the injection should not be warm. When used for cleanliness it may contain a little mild astringent. I do not think, however, this method a good one for the really curative injection, as such a large amount of the liquid has to be used, which is under no control. During the treatment of gonorrhœa in the female, the surgeon must bear in mind that a leucorrhœal discharge from the womb may, and probably will, exist at the same time; this must be looked for and carefully treated, for the irritation it sets up will minimize, to a great extent, the good effects of the treatment for the specific vaginitis, the meeting of the two discharges, the one acid and the other alkaline, forming a third, most virulent and irritating.

Before leaving the subject of gonorrhœa, and on the dictum of "prevention is better than cure," it

may prove to the advantage of many male patients if the surgeon advise them in the future, after any doubtful connection, immediately to make water, and, in doing so, to arrest the flow of urine three or four times, by compressing the lips of the urethra with the finger and thumb. I am far from asserting that this procedure would be absolutely preventive of gonorrhœa, but, at any rate, it must thoroughly wash out the urethra, especially as, at the time, the penis is in a semi-erectile condition.

In considering the complications of gonorrhœa, the first which naturally comes under notice is EPIDIDYMITIS, or, as it is more commonly termed, ORCHITIS, being the most frequent of these sequelæ. Although the term orchitis is more commonly used, it conveys an erroneous idea, for the inflammation but rarely extends to the testicle itself, being limited to the epididymis, attacking, first, the globus minor of that body, passing upwards to the globus major, extending to the tunica vaginalis, and, in some exceptional cases, reaching the testicle proper, the left organ being more frequently affected than the right. At the present time the usually accepted, and certainly the most rational, cause of epididymitis is, that the inflammation extends from the urethra, through the ejaculatory ducts and vas deferens to the epididymis; still, the formerly accepted theory of metastasis is brought vividly to our minds when we almost invariably see the discharge of the urethra nearly, if not altogether, cease during the progress of the epididymitis, only to return as abundant as ever when the latter is cured. Further light might

be thrown on this subject by post-mortem examinations, but these, of course, are necessarily rare.

The symptom, *par excellence*, of this disease, is evidently *pain*, which in all cases is severe, in some agonizing, not only in the affected part, but extending up the cord and to the lower part of the spine; the organ itself is felt to be hard, tense, and particularly tender to the slightest touch, the patient, when obliged to stand up to walk, doing so in a bent position. The effusion of plastic inflammatory serum into the tunica vaginalis causes the scrotum on the affected side to assume a swollen, tense, and inflamed condition. These symptoms may be accompanied by a considerable amount of fever and constitutional disturbance.

With regard to the prognosis, this is favourable with respect to the subsidence of the inflammation and the cessation of the pain; but the great point to be considered is, whether a patient in whom epididymitis has occurred on both sides, need entertain any fear of his future procreative powers. After careful reference to the most eminent authorities on this point, I think the following conclusion may be drawn:—When epididymitis has shown itself on both sides, as long as any induration can be felt in the epididymis (generally in the globus minor), the surgeon may conclude that there exists a bar to the passage of the sperm, and that, consequently, the patient would not be procreative, although all the sexual functions would be performed, but the semen would not contain spermatozoa. This must be verified by the microscope, and this verification is most important, as cases are quoted in which the spermatozoa

have reappeared in the semen after having been absent for some time through double epididymitis, the patient in the meanwhile having undergone appropriate treatment.

In the treatment of epididymitis, the first indications are evidently to allay the inflammation and relieve the pain. Absolute rest in a recumbent posture is certainly most important, but it is rarely that patients, unless the pain be very severe, can be induced to take it; however, if this be done, I have found the most advantageous and expeditious mode of treatment is, in the first place, to administer a brisk saline purge, varied in strength according to the man's constitution; and, in the second, to apply in the groin, over the cord, on the affected side, from three to six leeches; when these fall off, a poultice to be placed on the bites, to encourage bleeding, for a period consistent with the patient's strength. During this time, the affected testicle is enveloped in a hot poultice, being carefully raised and supported on a small pillow placed between the legs, or by one or more broad strips of plaster extending from thigh to thigh; the shelf thus formed is padded with a thick layer of cotton wool, on which the testicles lie. In two or three, sometimes four or five, days it will be found that the pain has disappeared, although the swelling still remains, consequent on the effusion into the tunica vaginalis. In order to absorb this, the next step is to carefully strap the testicle. The patient may then get up and may walk about, the scrotum being properly supported; this may be done very comfortably with a triangular bandage, such as is used in field surgery. To the centre of the base of the triangle a

broad piece of tape is sewn; this going backwards between the buttocks, and, being fastened to a belt or handkerchief round the waist, prevents the bandage slipping forward, whilst the two ends are secured to the belt in front, being brought up along the groins, and the apex of the triangle is brought forward in the medium line and likewise attached to the belt, the bandage thus forming a sac, in which the testicles rest easily. If no triangular bandage be at hand, an ordinary handkerchief can be folded into the same shape.

Many surgeons recommend the application of cold instead of heat. This may be done by ice in india-rubber bags, or by the continuous evaporation of ether. Personally, I have not had much success with this method of treatment, and prefer warmth, as being more easily applied, and being in substance more soft and pliable.

When the tunica vaginalis is very tense, and the pain very great, it may be useful to puncture it in order to relieve the tension. This is specially of service in the out-patient room of a hospital, where the immediate relief of the pain is of enormous importance. I remember being much struck years ago in the out-patient room of my valued teacher, Mr. Henry Smith, at King's College Hospital, by the contrast between the entry and exit of some of these cases: in the former, the patient bent nearly double, and showing every sign of acute pain; in the latter, an erect carriage, and a countenance expressive of enormous relief. Mr. Smith used to plunge a Syme's knife quite three-fourths of an inch through the scrotum and tunica vaginalis. I think, however, this

method should not be employed in private practice, and in cases where the patient can lay up for a few days, as I have invariably seen the most acute pain yield to rest, leeches, and poultices. If an abscess form, it must be opened and a free vent allowed to the pus.

Various ointments have often been prescribed to smear over the scrotum in epididymitis; the most useful of these is certainly the ung. belladonnæ, B.P.; it may be applied to the swollen part, which is then enveloped in cotton-wool, and supported by the bandage before alluded to. This treatment I have found to answer in what I may call subacute cases, where there is considerable swelling, but less redness and pain than in an acute case, in which I think the application of ointment alone is not sufficient. Tobacco has been recommended to be used in the poultices: I have never tried it, so I can give no opinion as to its merits.

After the acute symptoms have subsided there often remains a chronic enlargement of the epididymis most difficult to get rid of, and which will occasion the patient a considerable amount of malaise, and even pain, during and after active exertion. To remedy this is all the more important as it affects the patient's procreative powers; the most effective mode of treatment is the constant wearing of a suspensory bandage, the application of pressure by partial strapping, careful attention to general health, together with gradually increased doses of iodide of potassium. This chronic sequela to epididymitis may be aptly compared to the gleet which so often follows gonorrhœa, especially as the affection in question, like

gleet, necessitates very often a lengthy and tedious treatment, and one which, though never losing sight of the local disorder, should bear more particularly on the hygienic and constitutional requirements of the patient.

It is certainly the duty of the surgeon to warn patients who have suffered from epididymitis that it is very liable to recur from the slightest exciting cause, especially from the one set up by a discharge from the urethra; this has several times been brought under my notice, and I have often seen cases in which at one period an attack of epididymitis having followed (or rather accompanied) an acute gonorrhœa the patient, months after he has been cured of both, will, from one of those mild attacks of urethritis which I have before mentioned under the name of urethorrhœa, contract an epididymitis, probably in the same testicle, much more severe than the first.

Before leaving this subject, I may mention that I always advise patients in choosing a suspensory bandage to buy one with tapes attached to the posterior border of the sac, which go backwards round the thighs and fasten to the waist-belt at each side; without these I find the sharp border of the sac presses on the posterior part of the testicle and cord, and causes pain, the bandage thus doing more harm than good.

Small abscesses in the vicinity of the penile portion of the urethra are sometimes formed by the irritation of gonorrhœa, and are very troublesome; they should be opened as soon as possible, so as to obviate the chance of their bursting into the urethra, and setting up a blind urethral fistula. They are

generally in the vicinity of the frænum. When they occur near the bulbous portion, or in the glands of Cowper, they give rise to a train of symptoms which closely simulates stricture, though the intense pain in the perinæum, together with the sudden febrile disturbance, will materially assist the diagnosis, which would of course be rendered absolute by the appearance of a fluctuating swelling in the perinæum; this should be opened as soon as possible, and a free exit given to the pus.

GLEET may be considered generally as the effect of a neglected or badly treated clap, though it must be remembered that some constitutions, especially those with a gouty or rheumatic tendency, seem to have a special predilection for gleet, however well and carefully the gonorrhœa has been treated. The thin, white watery discharge of gleet seems to me to come from a deeper part of the urethra than the thick, abundant matter of gonorrhœa; the chronic inflammation of the urethra causing gleet, often limited to a small patch, is, I should think, rarely anterior to the bulbous portion, and often as far back as the membranous portion, of the urethra. This is shown by the difficulty the patient often has in producing a drop of the discharge by pressing on the penis, also by the constant appearance in the morning of a small amount of discharge at the orifice of the urethra, this having had every facility of finding its way from the deeper portions during the tranquillity of sleep, and also by the sensations of the patient during the passage of an instrument through the urethra, the feeling of passing

over a raw surface being almost invariably experienced when the catheter has reached the deeper portion of the urethra.

In my opinion, gleet is one of the most fertile causes of stricture, and not, as has been so often vaguely said, the use of injections to treat gonorrhœa; on the contrary, injections, when properly given, being the cure for gonorrhœa; and gleet, being nearly always the sequela of neglected clap, we may regard stricture as being indirectly caused in many cases, not by the *treatment*, but by the *non-treatment*, of gonorrhœa.

The skill and patience of the surgeon are often severely tested in his endeavours to cure a gleet: his skill, in finding out the best remedies for the individual case; his patience, not only by the tedious nature of the amelioration, but also by the frequent relapses, generally caused by some imprudence on the part of the patient. No set rules can be laid down to guide the surgeon in the treatment of gleet. One remedy may cure one case and utterly fail in another; so it is our duty to speedily change any one method of treatment which does not produce almost immediate improvement; but, at the same time, it is of the utmost importance to attend most carefully to the patient's general health, which must be improved as much as possible. For instance, in a debilitated person, a gleet, which seems to set at defiance all local remedies, will speedily yield to iron and change of air. When the discharge of a gleet is abundant, although thin and watery, it is evident that it must be poured out from a comparatively extended surface of

the urethra; therefore, the introduction of an iodoform bougie, followed by the use of an injection, will probably cure the case. If this fail, I think copaiva is very useful, producing, as I have remarked before, more good effect on the thin discharge of gleet than on the thick pus of gonorrhœa. Besides, on the supposition that the discharge came from a deep part of the urethra, the bougie and injection might not reach the diseased portion of the mucous membrane. The surgeon must bear in mind that, for a gleet occurring in a rheumatic or gouty subject, the remedies for those diseases are of the greatest value; therefore, most obstinate gleets are, in these cases, often cured by the administration of salicylate of soda, &c. All this time tonics, especially iron, should be given when the patient is spare or debilitated; but for a plethoric person, accustomed to high living, mild saline purges are useful, together with enforced moderation in diet. In both class of cases change of air, and, more particularly, change of scene, to take the patient's attention from his malady, are most important.

When the discharge of gleet is very slight, and some difficulty is experienced by the patient in producing a drop at the orifice of the urethra, though he invariably finds it there when he wakes in the morning, we may conclude there is a small diseased spot deep in the urethra, which we must endeavour to find and heal. One of the best methods to do both is to pass a silver catheter slowly into the bladder. The patient's own sensations will direct the surgeon when the point of the instrument comes in contact with the small ulcer-

ated surface, which will often subsequently heal quickly after the irritation produced by the catheter. Flexible bougies may be passed for the same purpose. In these kind of cases insufflation, either of an astringent lotion or powder, is very useful, as the surgeon is then certain the remedy reaches the disease, which a liquid might fail to do if given as an ordinary injection. The same objection holds good with regard to soluble bougies, for, as the urethra naturally ejects any foreign substance, the bougie, when dissolved, would not reach farther than its point originally did when introduced in a solid condition, and thus would fail to reach the diseased spot. In obstinate cases copaiva should be tried, and also various injections; but this kind of gleet is best treated either by the daily passage of a bougie or a catheter, or else by insufflation, through a special instrument, of an astringent lotion or powder on to the diseased spot itself, these methods being always accompanied by careful constitutional treatment (generally, but not always, tonic), together with change of air and scene. In all gleets beer should be avoided, but light wines, with mineral waters, may be taken. The bowels should be regulated, constipation being specially avoided; and any irritation of the intestinal canal, such as that caused by tape- or other worms, should be corrected. When practicable, the endoscope may be used to find out the exact situation of the diseased spot in the urethra.

LEUCORRHŒA, occurring after gonorrhœa, may be regarded in the woman as a parallel to gleet in the man; in leucorrhœa, as in gleet, the seat of the

discharge is farther off, the discharge itself is thin and white, there is no pain, and but very little inflammation, constitutional treatment is of the utmost importance, and local remedies should be applied, more especially to one particular spot, the cervix uteri. All that I have said about the constitutional treatment of gleet applies also to the constitutional treatment of leucorrhœa; locally vaginal injections, especially those of tepid water, are very useful to wash away the discharge from the womb, which must necessarily pass by the vagina; the best method of cure (in conjunction with careful constitutional treatment) is to apply through a speculum a strong solution of carbolic acid to the cervix uteri by means of a uterine sound the end of which is wrapped tightly in cotton wool; this may be done every day.

A CHRONIC INFLAMMATION OF THE PROSTATE may be set up by the gleet extending to the prostatic portion of the urethra, and its extension still farther back would cause INFLAMMATION OF THE NECK OF THE BLADDER. Both these complications must be treated on general principles, and the surgeon should always bear in mind the importance of curing the discharge which is the primary cause of the mischief; so whilst giving constitutional remedies, and treating the local inflammation by counter-irritation to the perinæum, he should not neglect to try the effect of copaiva and cubebs or sandal-wood oil.

The same remarks apply to the treatment of GONORRHŒAL RHEUMATISM (or, in my opinion, more correctly speaking, the RHEUMATISM OF GLEET), though in a case of this kind the anti-rheumatic remedies will often go far towards curing the gleet itself.

In treating a case of gonorrhœa, the surgeon should always caution the patient to carefully guard against the possibility of any of the discharge being carried to the eyes, as it would set up GONORRHŒAL OPHTHALMIA, and there would be great risk to the person affected of losing the sight in one or both eyes. When this complication has declared itself, the treatment to be efficacious must be prompt and vigorous; the eyelid must be turned up, and nitrate of silver freely applied to the conjunctiva; strict cleanliness should be enforced, and an astringent lotion constantly applied; better still, is a weak lotion of nitrate of silver, which must be dropped between the lids once or twice a day. Counter-irritation to the temple on the affected side is often useful, so is occasionally the application of leeches to the same locality. Care should invariably be taken to protect the other eye. The ordinary constitutional treatment of acute inflammation should be exhibited, but should be modified to suit the individual case under consideration.

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