Observations on the treatment of some forms of venereal disease.

by

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Introduction.

In his address to the graduates in Law and Medicine of the University of Glasgow in July 1879, Professor McKendrick said:- "There are times in the history of every man, when he reaches definite stages in his journey through life; and times when a man reaches a goal to which he has long striven, and from which he abruptly makes a fresh start."

Having passed through some of these stages, and having reached the goal, viz of M.B., to which the professor more particularly referred in the above sentence, it has since then been my good fortune to have had unusually favourable opportunities for the study of venereal affections; and I have accordingly prepared a short account of the various forms of disease, and of a few of its more rare forms as the subject of a thesis for graduation.

When we remember the nature of these affections; the great variety of forms which they assume; the frequency of their occurrence; the fact of their being common to both sexes of the rich as well as the poor, the prince as well as the prostitute, we offer no further apology for our subject.

Neither on the part of the medical practitioner nor

yet on the part of the public, have venereal diseases received that amount of sympathy which they deserve. We read that at first regular medical men refused to undertake the management of diseases of this class; and, as a consequence, the practice fell into the hands of a lot of charlatans, who gave up their own businesses to attend such cases, which, instead of being benefited were often considerably aggravated by their interference. We do not therefore need to wonder at some of these diseases assuming the virulence which they formerly did; for, even at the present day, it is from a want of proper familiarity with them that it is no uncommon thing for them to pass unrecognised into the hands of charlatans and others, who are not over careful of the remedies they use, and are often the means of bringing about irremediable evils both in the patient and in future generations. It is now very generally believed that the unskilful treatment formerly adopted was in great part the cause of the disease being often so extremely virulent; for, at the present day, syphilis, if improperly treated or allowed to go on without treatment still proves as virulent and fatal as ever; but it is now a thing of extremely rare occurrence to see the disease assume anything like

its former virulence, and this we attribute entirely to the present mode of treatment. At the same time, a thorough knowledge of the appearances, symptoms, and mode of treating the disease, in a manner which will be both safe and permanent in its effects, is not possessed by the profession generally. We are, however, of opinion that if facilities for study were afforded students and licentiates on a more extensive scale than is possible in our general hospitals, much more interest would then be taken in them than is at present.

But, apart from all these considerations, these affections are most frequently contracted in early life, and the patients, being ignorant of their nature, often trifle with and allow them to take their own course. As females are the most direct agents of contamination, it is of the first importance to be acquainted with the appearances and management of the disease as it occurs in them. This is well borne out by Dr. Podolinski in La Medicine Contemporaine as regards Syphilis in Russia. He says:— "Syphilis is the principal scourge of the rural populations of nearly all Russia. In some of the villages,

one third of the inhabitants are contaminated. The influence of the disease on the degeneration of the population and the increase of mortality is very great. There is scarcely an example of a member of an infected family having passed the age of 60, and the death-rate among the syphilitic is more than one half greater than that in the remaining population. Heredity and marriage are the principal means of its propagation, but special causes exist in the South and chiefly in the government of Kiew. In this province there are numerous beet-root plantations and manufactories of sugar, but the number of workmen being insufficient, the employers seek to promote the increase of the population artificially. For this purpose spirits are freely distributed to the young adults; music provided several times daily for their entertainment; and every opportunity afforded for unrestrained intercourse of the sexes. The villagers, unable to resist these attractions, leave their families for the plantations. Girls who have passed a season at the "beet-roots" cannot be kept at home. The regular life of their families becomes intolerable to them. As soon as the musicians come by in their triumphal cars,

drawn by four magnificent horses, the wise exhortations of parents are forgotten, and they allow themselves to be carried off — to return only at the end of the season, tired, demoralized, and diseased."

Although desirous of showing the importance of our present study, we wish to avoid falling into the error or tendency of essayists of staggerating its importance; of writing at too great length; and also of presenting the same facts again and again under different headings. Our intention is while endeavouring not to extend the paper unduly, at the same time to avoid omitting anything of importance of which we have any experience, particularly on such affections as are less well known. And here, it may not be out of place to quote the words of Jonathan Hutchinson, the eminent syphilographer, who says — "In the early stage of any department of knowledge, it is almost a matter of necessity that it should be in the hands of a few. But it is the highest privelege of those who thus devote themselves to the reclaiming of new spots of territory, to be able after a while to hand them over to the Commonwealth, to prove that they are now cultivated and well worthy of annexation."

Subjects to be Considered.

The remarks which are to follow may be called "Crumbs swept up", as they consist in great part of notes taken from observations in hospital and private practice, which have been extended during leisure hours. This leads us to say that it might be of advantage to ourselves and others to take notes of interesting cases and points which turn up every day in our practice, and enter them in a common-place book, to be made use of afterwards in our writings on special subjects.

It is proposed then to consider our subject under the following heads.—

1. Syphilis, a description and the diagnosis of its various forms.
2. Its treatment by Mercury, more particularly by means of fumigation, inunction, and hypodermic injection.
3. The relationship of Syphilis to marriage & pregnancy.
4. Congenital or Hereditary Syphilis.
5. Vaccinal Syphilis.
6. The Contagious diseases acts.
7. The use of Chloroform in Syphilitic subjects.
8. A description of the Thermo-Cautery, as being especially applicable in the treatment of some of the affections in question.

E. Syphilis in general.

In a subject such as the one now before us, it is quite impossible to deal with all the points as thoroughly and satisfactorily as one would like. Here, however, the aim has been rather to make observations more of a clinical and practical nature, than to enter either into the pathological anatomy or physiology of them. Even in spite of a desire not to extend the paper unduly, it must of necessity exceed the limits originally intended, and, on that account, the treatment of some of the less important affections will require to be passed over shortly, so as to admit of more space being devoted to those coming more immediately under the prescribed heading, and to which from special practical acquaintance with them, it may be presumed we are entitled to write with some authority. Where no mention has been made of an affection, it may be taken for granted that we have no experience of it.

I. In the first place then we shall consider Syphilis in general. Under this head, we include two distinct diseases, the one local and the other constitutional, and neither of these having any connection with the other disease of so common occurrence in the same parts, viz Gonorrhoea; although, under ordinary circumstances, they are all con-

Simple Contagious ulcer of the genitals
and
Chancre or primary syphilis

The simple Contagious ulcer.

tracted in a similar manner, viz. by impure intercourse. They are all three equally common or nearly so, but each affection is entirely separate from the other and will only produce itself, although all the three forms of disease may present themselves in the same individual at the same time. To avoid any ambiguity in the following remarks, we shall understand the term simple contagious ulcer of the genitals to refer to the local complaint, and by the term primary syphilis or chancre we shall understand that the constitutional disease is meant, although the primary sore be the only manifestation of any constitutional disorder at first.

The simple contagious ulcer of the genitals, false chancre, soft chancre, non-infecting chancre, chancre without syphilis, appears at once or at most in a day or two after infection — it has no period of incubation. There may only be one or there may be several — the free edge of the foreskin may all have become inoculated with the virus, and that is a frequent cause of acquired phimosis. The frænum in the male and the fourchette in the female are favourite sites for such sores, and in such cases, we are apt to have considerable œdema of the foreskin and enlarged and œdematous labia. With

Bubo of absorption

this variety of sore there never is any induration or hardness of the base, but there is often considerable pain, so that such a sore is not apt to pass unnoticed. There are more or less heat, redness, and swelling, due to a certain amount of inflammation. As a rule however it is rather a clean-looking sore, and its edges are sharply defined. It may be inoculated to any extent on others and in the same individual unless it have commenced to heal. It commonly runs a course of from four to six weeks, and even much longer in some situations, unless abortive treatment have been adopted. Bumstead holds that the simple chancre, or 'chancroid' as he terms it, may originate de novo, that it does not depend upon a specific virus. He admits that it is commonly produced by inoculation of discharge from another chancroid, but that it may arise especially in persons debilitated from any cause from inoculation of the products of inflammation either simple or syphilitic, and subsequently perpetuate itself from one individual to another as a chancroid. In most cases it is apt to be complicated with one or more buboes in one or both groins according to the

Sympathetic bubo.

Hunter on Venereal, by Dr. Adams, Second Edition, p. 358.

" p. 359.

Secondary sores.

situation of the sore or sores. If the sore be at the fraenum or fourchette, both groins may be the seat of buboes; but, if the sore be only upon one side of the penis or upon one labium, only one groin is likely to be affected. This depends upon the arrangement of the lymphatic vessels — those of each side carrying the poison to their corresponding glands. But apart from it being usual for a bubo to arise from absorption of the poison from the sore into the glands, we may have a simple bubo or what is called a 'bubo of irritation' or a 'sympathetic bubo' e.g. in the one groin we may have a bubo of absorption, while in the other groin there may be one of sympathy. In the case of the bubo of absorption generally one gland only is involved, for, as Hunter explains, "the matter is weakened or much diluted by absorptions from other parts by the time it gets through the nearest ramifications, and therefore has not power to contaminate those ~~which~~ glands which are beyond." He also believed "that the nature of the poison was altered in these glands as it passed through them, and so did not contaminate the second and third series of glands."

When a bubo of absorption is opened, its edges soon become

inoculated with the virus of the Soft Sore. This is apt to delay the healing process considerably, even although there be no unhealthy action in the sore otherwise.
In the same way, leech-bites are generally converted into so many soft sores. A bubo of absorption may arise in any gland to which the virus has been carried, as well as one of sympathy due to the presence of a sore.
Other affections besides soft sores may cause enlargement and even at times suppuration of the inguinal glands, e.g. excessive walking; any irritation or suppuration at the anus, which may have been irritated by walking. In the case of any irritation of the toes or foot, it is a different set of glands which is affected.
On account of this tendency to the formation of buboes, and of the sores and buboes to take on unhealthy action, the soft sore is, in the first instance at any rate, a much more serious matter to a soldier or in fact to any one than a chancre.
The discharge from a simple bubo is not inoculable, but that from a bubo of absorption may be inoculated to any extent in the individual who

Phagedenic buboes.

Cicatrix.

Phagedenic sores.

has it and in others.
Bulbos are prone to take on phagedænic action. When such occurs, a large area of the integument of the thigh or abdomen may be involved in the diseased action. It frequently appears to be healing at one margin, while it is slowly advancing at the opposite side. Even the muscles and vessels may be exposed. The constitution of such patients is however frequently at fault, and is the cause of this abnormal action being set up in the parts.
After a soft chancre a simple cicatrix remains, — if there be even one at all.
This sore may recur again and again in the same individual, and yet constitutional disease never results, — the poison is never absorbed beyond the first set of glands. This variety of sore does not prevent the person becoming infected with the hard chancre, next to be considered, and vice versa.
Both forms of sore vary in their appearances and course according to the peculiar soil upon which they have been inoculated.
The soft sore is liable at times to become phagedænic, and cause in this way, much destruction

Phinadsy

of the tissues of the penis, constituting one form of sloughing penis. This may either be brought about by pus being retained and becoming putrid under a tight foreskin, or simply from a low state of the patients system. Here it is important to note that it is not possible to inoculate the phagedaenic poison upon the patient himself or for him to communicate it to another.

Frequently when we have several soft sores situated around the foreskin, there is a great tendency as these cicatrize for the foreskin to become so much contracted as to make it almost if not altogether impossible to expose the glans. In this way what is called acquired phimosis is produced. The degree of contraction however varies in different individuals according to the original formation of the parts and the number and seat of the sores. We generally find that a sufficiently large opening remains for the escape of the discharges from the sores and the surrounding parts. In a few cases however, and especially where no attention has been paid to cleanliness, the amount of contraction is so considerable as to cause the discharges from the sores to

Treatment of Simple Contagious ulcer.

be retained. The pus soon becomes putrid; the tissues inflame, and a condition approaching in appearance to phlegmonous erysipelas results. Sometimes the skin of the penis and scrotum sloughs from this cause leaving the body of the penis and the testicles exposed. In less serious cases however the foreskin only is in danger of sloughing.

Treatment of the ~~Simple~~ Contagious ulcer.

In the first place it is necessary to find out how long after connection the sore has taken to show itself: or, in other words if there have or there have not been a period of incubation. If there have been no period of incubation and if there be no hardness of the base nor rolling glands in the groin, we often derive much benefit from the application to the sore of strong Nitric Acid or the Acid Nitrate of Mercury. When either of these is applied sufficiently early, before the glands have had time to absorb the poison, the risk of a bubo forming is diminished. Nitrate of Silver on the other hand is more apt to cause buboes than prevent them. However, if a gland appear to be in a condition of doubt as to whether or not it will suppurate, it is always

bad practice to lanterize such a sore, for the effect of the caustic will be rather injurious, will rather force on suppuration than prevent it.
When applying the acid the patient should stand with his back against a wall and with his feet apart. The sore should then be thoroughly exposed and then dried, and one drop of the acid should be applied once for all. When it has acted, cold water should be poured upon the sore or a solution of Carbonate of soda so as to completely neutralize the superfluous acid. We may get the same result from the actual or thermo-cautery, but of course the other is preferable in ordinary cases. In the next place simple water dressing may be applied so as to help the slough to separate. By these means we get in a few days a clean healthy sore which heals readily with simple treatment, after the slough produced by the acid has been removed by poultices or water dressing. If however it tend to ulcerate and extend, the acid may require to be repeated, after which it should be dressed with a watery solution of opium; and, when all tendency to spread has ceased, it may be dressed with a dilute

solution of diluted Nitric Acid, oiled lint, or simply absorbent cotton. At the same time one grain of Opium should be given two or three times a day. When the sore has become more healthy in appearance it may be dressed with a saturated solution of potassio-tartrate of iron. Neither Mercury nor Iodide of Potassium need be given internally, but if the patient be weakly as is usually the case, he should be put upon potassio-tartrate of iron in doses ranging from five to thirty grains two or three times a day after meals. The effect of such treatment is sometimes magical. The patient ought to avoid smoking and drinking as these tend to hinder the healing process.

Some sores heal rapidly under the influence of Iodoform. It may be used in many ways, being merely sprinkled upon the sores in the form of a fine powder, or applied as an ointment consisting of Iodoform ℥ss Balsam of Peru ʒi Vaseline ℥i. The Balsam of Peru helps to mask the disagreeable odour of the Iodoform, which is the principal drawback to its use. Oil of Eucalyptus however answers the same purpose better. A tonquin bean kept in the Iodoform bottle also helps to mask its disagreeable odour. In whichever way

Inflamed foreskin.

it is applied if this be done sufficiently early the risk of a bubo is much diminished.
Caustics must never be used so long as a sore is in an inflamed condition. Under these circumstances soothing poultices of Chamomile flowers in a watery solution of opium and rest in bed are of most service. In addition benefit is also obtained from the use of moderate purgatives.
Black wash, a mercurial preparation, is apt to irritate the sore.
As a rule ointments should not be used unless prepared with Vaseline, as they are apt to become rancid, when they are made up with lard.
When the foreskin becomes inflamed, and especially if it threaten to slough, it should be slit up. This if done sufficiently early, by relieving tension, will most likely save the part. But in either case if it be allowed to slough or if it be slit up, the glans will ever after remain exposed as if circumcision had been performed; and, although at first, the parts look rather ugly, yet by means of careful dressing and afterwards by well-adapted pressure and strapping, the appearance of the parts improves far more than we would at first expect.

Phimosis.

Incisions may be required in both the body of the penis and in the Scrotum, and these should be made longitudinally. If there be any sloughing, the parts should be carefully syringed with Condy's fluid, and Charcoal poultices should be applied. At the same time the man must be carefully fed and stimulated with Carbonate of Ammonia and Bark. Afterwards, when the parts have got cleaned and have commenced to heal, strips of adhesive plaster, or of lint in the first instance may be applied, especially in the case of the Scrotum, if either of the testicles remain exposed, so as to get the Scrotum to cover them as much as possible. At this stage of the case, the patient should get full doses of the Potassio-tartrate of iron.

In other cases, however, there is a sufficient opening for the discharges, and by and by, the sores heal, leaving a condition of permanent phimosis. If the case be seen at an early stage, the foreskin may be made to slide back by bathing in hot water and oiling the parts frequently. If by these means we are successful in getting the foreskin drawn back, the parts should be well washed and dried, and oiled lint or iodoform ointment spread upon lint should be applied.

Circumcision.

If this can be managed, it has the effect of keeping the foreskin dilated and so helps to prevent a recurrence of the phimosis.
If however we should fail in getting the foreskin drawn back, it becomes necessary to perform the operation of circumcision. In doing so, it is well, after having our patient well under Chloroform, to apply an elastic band or narrow bandage so as to avoid haemorrhage and be able to operate with comfort. We must be careful to remove plenty, and yet not take off too much of the foreskin. This operation is easily performed by means of a clamp for the purpose. In this way the skin is sufficiently drawn down & kept in position till the redundant and diseased parts are removed by the knife. Any sores which are yet open may first be touched with the thermo-cautery so as to prevent as far as possible the raw surface becoming infected. The edges of skin and mucous membrane may be brought together by hair or catgut sutures, and, in some cases, with complete rest, may be got to heal by first intention, although at other times especially if there be any dragging, the raw surfaces may get infected. In weakly subjects, this

Adema of foreskin.

may take on ulcerative action, which may be controlled by the administration of iron and opium internally and the application of oiled lint to the sore.

It is no uncommon thing to have a considerable amount of œdema of the foreskin after the operation, especially if there be a sore on the frænum. This condition is often extremely persistent, - it may continue for six months, but it is more troublesome from its ugly appearance than on account of anything else. We can assist the removal of the coagulated lymph of which it consists, by elevation combined with a moderate amount of friction and pressure. In cases where the œdema of the penis or labia is considerable relief may often be obtained by puncturing the skin here & there so as to allow of the escape of serous fluid. The same treatment may be adopted in œdema of the scrotum. It is necessary however carefully to distinguish this affection from hydrocele, &c.

In no case should the operation of circumcision be performed if there be œdema of the penis and scrotum as the cut surfaces would not unite. Measures should first be taken to obtain subsidence of the œdema, after which we are justified in operating.

Simple sore versus epithelioma.

Amputation of the penis.

It is sometimes an exceedingly difficult matter to say whether a given case be one of simple sores or of epithelioma of the penis. In such a case we should note the age of the patient; obtain the history of the case; examine the glands of the groin; inquire as to pain; and, lastly, if unable to come to a definite conclusion, we should try the effect of inoculation; if this fail, we are warranted in calling the case one of epithelioma, and our course of action is clear, viz amputation. Details of such an operation need not be entered into here, suffice it to say that not only may the penis require to be amputated, but also the scrotum and testicles. In such a case, an opening for the urethra may be left in front of the anus.
Again, if the penis require to be removed high up, e.g. for gangrene, we may not be able to get a sufficient flap, in which case, we may simply cut the organ straight through without making any flap. It is then necessary to stitch the mucous membrane of the urethra to the skin or adjacent tissues of the organ to prevent retraction as much as possible. A catheter should then be tied in and retained till the wound is whole; it should then be passed at short inter-

Treatment of buboes.

vals so as to prevent the passage becoming impervious.
If the entire penis be removed, it is just as well to remove at the same time the scrotum and testicles. The urethra may be brought down to the place of junction of the scrotum with the perineum.

Buboes when pointing may be opened by several small linear incisions or a simple horizontal or perpendicular one. As a rule we should not make a longer incision than is absolutely necessary, but when we only have one incision it should be sufficiently long so as to avoid any risk of undermining and much inoculation. Afterwards it may be cauterized.

In the case of a simple bubo, nothing is of more importance than rest, and, in order to relieve tension, the thigh should be flexed and supported by a pillow placed under the knee. The bowels should be kept freely open.

When in a more or less chronic state, they are sometimes absorbed by gentle frictions with Oleate of Mercury. It may be mixed with Vaseline in the proportion of one in ten or twenty.

In the bubo of absorption the same treatment is required, but it usually suppurates.

Phagedenic bubo

Missed

The hard chancre.

A phagedaenic bubo should be treated on principles similar to those recommended for phagedaenic sores, viz. by Nitric Acid or the Thermo cautery, followed by poultices, then oiled lint, and finally when cleaned by potassio-tartrate of iron, and internally by Opium and potassio-tartrate of iron.

In the case of the Chancre, hard sore, infecting chancre, true or Hunterian Chancre, there is both as regards origin, course, results, and treatment a wide difference from the former sore. The hard chancre is as a rule more frequently seen than is the soft chancre, in the proportion of 4 to 1. Here there always is a period of incubation varying from a few days to several weeks, the average however being about 14 days. The only exception to this is that if there should be any abrasion of the surface there may be almost no period of incubation at all. There seldom is more than one such sore in an individual at the same time, although even in the True Hunterian Chancre there may be two or three separate rootlets. Its favourite situation is either at the fraenum or at the angle of the glans with the foreskin. A sore on the body of the penis is as a rule an infecting one.

Varieties. 1st.

2nd.

3rd.

4th.

We may have in the same individual at one and the same time both varieties of sore.
There is little or no pain attending this sore and neither swelling nor redness, so that it may never be noticed, and Constitutional disease may be conveyed unknowingly on the part of the one who conveys it.
In the female we seldom find a hard sore. It often appears as a simple abrasion and nothing more. As such it may heal up in a few days, if not irritated by Caustics, &c. By-and-by however the site of the sore becomes indurated and more or less elevated.
A second variety may present the same appearances as the last, with this exception that induration takes place in it prior to Cicatrization.
A third variety appears like the soft sore, and, as it heals it becomes indurated. This may be called the "mixed sore or "Chancroid". Regarding this sore we shall have something more to say presently.
A fourth form is the true Hunterian Chancre, which appears as a superficial sore, soon accompanied by considerable induration. It appears to be elevated above the surface, on account of the degree of induration which takes place, as a rule between the third and twelfth days, after the

Diagnosis.

Inguinal adenopathy.

appearance of the sore. The amount of hardness of the base or induration as it is called may vary according to the situation of the sore, eg whether it be upon the glans or foreskin. In the latter situation there is always more induration than in the former. In females it is often entirely absent, and, when situated upon the external parts, is easily seen, but when in the vagina it can only be seen by using the speculum.

In practice, we are unable to distinguish these forms of sore from the soft sore, although there is no difficulty in knowing a true Hunterian chancre from an ordinary soft sore. With however a history of incubation, and afterwards more or less induration underneath and around the sore, we recognise before us an infecting sore. It cannot be inoculated upon the individual himself, and only with difficulty upon others — only if it be spreading or stationary, not if it be healing. It is a rare thing for such a sore to take on phagedaenic action, but when this occurs it is in weakly subjects, and is the precursor of a severe form of constitutional disease.

In addition, we have to notice the effect which the chancre has upon the inguinal glands. Here we seldom have

such a thing as a bubo, at least a bubo of absorption, unless at the same time we have a soft sore. On the other hand, we may have a simple bubo from irritation or from the application of a caustic. Of course, the discharge from such a bubo is not inoculable. The usual effect upon the glands however is entirely different from that produced by the soft sore. As soon as induration takes place at the sore — often in about a fortnight from the appearance of the sore, the glands of the groin become enlarged, hard and painless, and may be felt to roll under the fingers like a knotted cord. Usually one gland is larger than the rest — the one nearest to the external ring. At first only the glands belonging to the side upon which the sore is situated enlarge, but soon those of the other side also enlarge, and this is soon followed by an enlargement of other glands in the body, e.g. the posterior cervical glands of the neck — "the cervical pleiades"; the epitrochlear gland situated at the inner condyle of the humerus; and the glands behind the knee. Those behind the neck are most markedly enlarged; and, frequently, although this may not take place till a later stage, the mastoid gland enlarges. The anterior auricular gland is

Cicatrix.

frequently enlarged in skin affections of the face & ulcerations of the angles of the mouth. The occipital glands are often enlarged even when we have no local exciting cause. Like the enlarged inguinal glands, there never is any pain in them, so that frequently they are affected without the patient being aware of it.
This condition of things is termed adenopathy, and indicates that the system is now fully under the influence of the syphilitic poison, but it is not a permanent one, although it usually continues so long as active symptoms exist. The glands in the groin or region of the primary sore are the first to enlarge and the last to disappear, if indeed they ever do so.
From six weeks to six months may elapse between the inoculation of the syphilitic poison and the appearance of the general adenopathy or other symptoms of general syphilis.
It is a very rare thing for suppuration to take place in any of these at this stage unless in weakly subjects.
After a primary syphilitic sore there generally is left a considerable cicatrix more especially if a caustic such as Nitric Acid have been applied. This cicatrix is accompanied at first by more or less induration, which however

Urethral Chancre.

Chancre of lip & tongue.

gradually goes away especially under treatment. Ricord has termed this cicatrix "the stamp of syphilis"

The chancre may be concealed in the urethra, where the induration, which is generally considerable, may be felt by grasping the penis. In such cases there is more or less pain in passing urine; there exists a serous or slightly purulent discharge; and generally a certain amount of stricture. As a rule the diagnosis is comparatively easy, in which we are assisted by having in the groin large rolling indolent glands; and, by watching the gradual removal of the induration under treatment, we are enabled to verify our diagnosis. Where we fail to discover a sore in the more usual situations, we may sometimes find it concealed in the urethra.

Occasionally however we have a chancre upon the lip or tongue from the patient smoking another person's pipe. When the lip is the seat of the sore, the site is usually the upper lip. A sore resembling it may be found on the lower lip — the latter however being an epithelioma. The sore upon the upper lip usually originates through inoculation from the virulent sore upon an infant's lip, who has derived the disease from the parent — such sores being secondary in form altho' primary in virulence

Chancre upon Nipple.

Treatment of the infecting chancre.

A sore upon the lip may also be produced by kissing or using the same cup or spoon as has been used by one already infected; or by a nurse sucking the nipples of her mistress who is syphilitic, and is suffering from excoriations upon the nipples.
We have also seen a mother with a hard chancre upon her nipple, contracted from her own child, who had been infected through vaccination. Wet nurses occasionally have a hard chancre, appearing at first as a crack, on one of their nipples, from nursing a syphilitic child. We never have such a thing on the mother's nipple when she nurses her own child, unless in the unusual circumstances stated above.
We have heard of Syphilis being inoculated upon the face, by the skin having been cut while shaving.
Of course a sore in any of these situations always affects the nearest glands in the same way as a sore upon the penis does the inguinal glands.

Treatment of the infecting chancre.

In the first place it may be stated that we do not believe it possible, as does Henry Lee, in all cases, to distinguish an infecting from a non-infecting sore in the early stage. If there have been a period of incubation, then we

Consider that the patient is suffering from a chancre, and that it will heal readily with simple treatment if kept clean, — water dressing or combined with a little port wine. If the patient be married and he desirous of avoiding the risk of conveying the disease to his wife, he may do so by giving the sore an occasional touch with the Liniment of Iodine. This will have the effect at the same time of hastening the healing process. If there be already a hard base or induration, and hard indolent, rolling, painless glands in the groin, we should put the patient at once upon mercurial treatment, not in the belief, according to Henry Lee, that we can thereby prevent the system being contaminated or prevent the evolution of secondary symptoms, but that when these develop themselves they may be less severe. It appears also that some sores will not readily heal without this treatment. Whenever we have the hard glands in the groin we are warranted in putting our patient upon mercurial treatment, for these & the hard base of the sore are the first evidence we have of secondary disease. We are aware that many hold a different opinion; they say that we should never treat a constitutional disease till it makes its appearance. No-

Inutility of circumcision

doubt this treatment will not prevent secondary symptoms from making their appearance, but it will help to delay them somewhat, and render them less severe when they do present themselves.

Again, let us suppose a sore, which has had a period of incubation, but no hard base has formed; in such a case, we should at once commence treatment; for this must be considered as an infecting sore, because we often have such, especially in women, which have no hard base, at least in the early stage.

If any of the parts have been torn, as frequently happens with the frænum especially in drunk people through unusual violence, we may have an infecting sore with no period of incubation.

In no case is any benefit to be got from applying caustics as Ricord and Sigmund did; they will not save the system from becoming infected, for, by the time the sore appears the mischief has been already done. As indicating the uselessness of caustics in such cases, patients so affected have frequently had circumcision performed, and yet secondary symptoms have appeared. From this then we see that the initial lesion of Syphilis is in reality the first expression of the infection of the patient's system, so that what has been

called the abortive treatment can here be utterly useless. Ricord said, Cauterize a sore within four days after its appearance; and Sigmund said, do it within four days after infection, and you will save your patient. Here we see that a sore appearing so soon after infection as four days will very rarely be an infecting sore, and we of course gain nothing by cauterizing except that we get a healthy sore, which heals readily, and we sometimes prevent the formation of a bubo. We may however apply once for all Nitric Acid or Acid Nitrate of Mercury to such a sore in the hope that the result may be good, and also as a means of satisfying the patient and of helping to prevent its propagation upon others; or the Liniment of Iodine may be applied as already recommended.

We cannot predicate a mild attack if we have little of a hard base, nor a severe attack if we have much hardness; much more depends upon the quantity and quality of the syphilitic virus and the constitution of the person upon whom it has been inoculated.

In the case of a chancre in the urethra, if it do not improve under treatment, and if it give rise to a close stricture, we may require to slit it up; and, if it be at the orifice of the urethra, we may frequently

Treatment of Bubo.

The Chancroid.

paint it over with Iodine Liniment; or if it be farther back it or mercurial ointment may be applied externally. If a bubo of irritation should arise in connection with this sore, we should be slow to open it, as these frequently become absorbed even when absorption seems hopeless.

The Chancroid; the "mixed Chancre" of Rollet; the "Condylomatous ~~affection~~ affection" of Kinecker is one of the sores most frequently met with in practice especially among females. This sore is one which has to be carefully distinguished from the hard sore on the one hand, and from the ordinary soft Chancre on the virgin female on the other; and is to be understood as a sore of a venereal kind occurring in a person who has already had Syphilis. It generally begins as a slightly raised spot or pimple, red in colour, and covered with more or less fine scales. By-and-by the top of it becomes ulcerated, but only to a slight extent. On account of a certain amount of induration the ulcerated top of the Chancroid appears to be raised above the surrounding skin. As a rule it heals readily. The glands which correspond to the site of the sore are indolently enlarged. It is auto-inoculable, so that there may be several such sores in the same individual at a time. Much difference of opinion exists as to the exact nature of this

affection. Diday and Langlebert believe it to be a sore resulting from infection from one of the worst forms of secondary disease such as the mucous patch. Others are at a loss to know exactly what it is, but although not contented with the above explanation, have no hesitation in classing it among the infecting sores. Macleod believes it to be a soft sore upon which a ~~soft~~ hard sore has been inoculated or both kinds of sore in one. This is a kind of sore with which we are familiar in persons who have been previously syphilized and are suffering from the diathesis but who have been exposed to fresh contagion. Female patients who have been in Hospital with a sore followed by constitutional symptoms, remain under treatment till all traces of the disease have for the time disappeared. In the course of a few months, however, having in the interval returned to the streets for the purposes of prostitution, they return to the ward, and on their private parts may be observed a number of sores of the kind we are describing. Upon a virgin subject, matter from this sore will produce an infecting chancre.

It is generally believed that if a person has contracted syphilis once that he cannot possibly be again affected at any rate for many years. This sore we are speaking of cannot

Treatment of the Chancroid.

Excoriations.

Treatment of Excoriations.

Herpes.

be the ordinary infecting sore, for the patient has only lately had constitutional disease. Neither is it the soft sore, for the former has an indurated base and is not generally followed by bubo. We hold that it is nothing but the true infecting sore inoculated upon a subject already syphilized, and accordingly modified by being sown upon syphilitic soil.

Very little in the way of treatment is as a rule required. Cleanliness is of the first importance; and we generally find that by applying dusting powder, composed of Calomel and Oxide of Zinc, in the proportion of one to two, and using perchloride of mercury internally, that they heal in a few days.

Excoriations. It is usually not very difficult to distinguish these from hard and soft chancres. They appear at once after connection; they are superficial, and as a rule heal readily. The discharge from them is not inoculable; and we have neither a hard base, tolling glands, nor buboes, unless they are irritated, when a sympathetic bubo may be produced.

They only require water dressing as a rule, but in some cases may be improved by a stimulating lotion e.g. Port Wine.

Herpes is of common occurrence, and is apt to recur in some persons again and again. It may sometimes be situated upon an inflamed base especially in

Treatment of Herpes.

Eczema.

Treatment of Eczema

Secondary Syphilis.

irritable people. It is apt to be produced by any irritating discharge from the female; but is most common in married persons in all ranks of society.

It should be kept perfectly clean, and caustics should never be used, as they are apt to set up buboes. It may be dressed with water dressing, lime water, or equal parts of lime water and port wine. The bowels should be acted upon by a calomel purge, and no whisky should be allowed.

Eczema is common and is produced by dirt, and there is no difficulty in distinguishing it.

It should be kept dry, and zinc powder should be dusted upon it and covered over with absorbent cotton.

Secondary Syphilis.

Secondary symptoms may show themselves before the chancre has had time to heal, but this is unusual, and as a rule is an indication of a severe course of syphilis, although in the adult it is not a very fatal disease. It may have a mild course all through, or it may commence mildly & terminate severely, or it may be severe all through. This depends upon the quantity and quality of the poison, and the peculiar constitution of the individual.

It is important to distinguish between the incubation period of the chancre, and the period of incubation between the ap-

Throat affection.

pearance of the chancre and the secondary symptoms. This latter varies from six weeks to six months.

After the general adenopathy the first symptoms of syphilis appear upon the skin and mucous membrane. Young persons of sanguine temperament are as a rule earlier affected than old or phlegmatic subjects.

Rarely has a person suffered for any length of time from syphilis before his throat begins to trouble him; in fact, if the chancre have escaped detection, this may be the first intimation we have of the poisoning of the general system. The throat affection differs, as do all the others, in different individuals and constitutions. In many it does not amount to more than an ordinary congestion. This condition however is apt to spread downwards even as far as the vocal cords, and is apt to produce hoarseness, which is not temporary as is the hoarseness of a common cold, but is apt to last for weeks and months. This is a peculiarity of syphilitic hoarseness, and in fact of syphilitic affections generally.

In a large proportion of cases there is more or less ulceration of one or both of the pillars of the fauces or the tonsils. These ulcers are superficial at this stage, small and circular and are common upon both sides. In these

Rheumatic pains.

Syphilides or Syphilodermata.

Syphilitic fever.

respects they differ from tertiary ulcers. They have an ashy appearance as if the mucous membrane had been touched with Nitrate of Silver.

In addition or in place of this we may have a circular ~~or~~ erythematous eruption of the palate. The mucous membrane of the nose may also be inflamed and ulcerated. Acute Tonsillitis may also occur and terminate in abscess. These forms of sore throat are frequently accompanied by Rheumatic pains in the head or one or more of the large joints, but it must not however be forgotten that simple sore throat often precedes an attack of ordinary Rheumatism, which differs from the Syphilitic variety in not being markedly worst at night.

At the same time as the sore throat we usually have one or other variety of skin eruption. These are known as the Syphilides or Syphilodermata. Before these make their appearance, we often notice a peculiar mottling of the skin, and the patient often suffers from headache, sickness, and general malaise. This is known as the Syphilitic fever and is much more common in women than in men, the former being much more susceptible to impressions than the latter, but it usually subsides on the appearance of the eruption. It is however to be borne in mind that in some cases the constitutional disturbance runs very high; ~~and~~ the high fever and the mottling of

Roseola.

the skin being specially suggestive of Typhus, for which it has not unfrequently been taken. It may here be remarked that rest, a warm bath, a purgative, followed by diaphoretics or a 10 grain dose of Iodide of Potassium will hasten the evolution of the eruption, when the constitutional symptoms will subside and the diagnosis will thus be rendered easy.

Roseola is by far the commonest of the early syphilitic eruptions, and it is interesting to notice that frequently its appearance is hastened by cold, damp, or the drinking of spirits. We commonly find it first about the upper part of the back and the abdomen, but it gradually, although sometimes rapidly, invades the whole body. It has a measly appearance, so much so that our patient may tell us that he is reminded by it of the time when he had measles. It may be made to disappear upon pressure. At first there is a little itching, but this is seldom much complained of. Its duration varies, especially does this depend upon whether the patient be or be not under treatment. As a rule however it runs a rapid course, but not so rapid as measles, and, if not influenced by treatment, it may last for six weeks, and relapses often occur when the treatment has been too early abandoned, or when the patient is ill clad or addicted to the use of ardent spirits. It is readily distinguished from measles, which is not-

Copaiba rash.

Syphilitic headache.

accompanied by the glandular enlargement characteristic of Syphilis, but in which we have affections of the nose, eyes, and Chest. Like Measles however it may be accompanied in its early stage by a considerable amount of fever. The eruption goes away in the same order as it made its appearance, and desquamation takes place in the same way. This consists of very fine dusty scales, which float about in the air, if the skin be rubbed up. As it fades it usually leaves a characteristic coppery mottling. During this period the patient may feel well and may be even gaining weight. This eruption varies slightly in its appearance in different constitutions, but is rather an eruption of the robust than of the feeble. In some skins it may readily be overlooked. We have seen Copaiba produce an erythematous eruption, but in this case there is no adenopathy, and there is generally a history of the medicine having been taken, as well as a peculiar odour of the medicine in the breath.

About the same time as the syphilitic fever occurs there is frequently considerable headache complained of, and this may occur within two months of infection. In the tertiary stages of syphilis headache is also common, but in the former case, the pain is felt over the whole head, while in the latter the pain is confined to a spot. In the former it may simply

Syphilitic Lichen.

Soriasis and Lepra.

cause a general uneasiness and restlessness at night, altho' at times very severe pain may be complained of, as is usual in the tertiary periods. These pains are always worst at night, while, in the case of other headaches, eg. Bilious & Neuralgic forms, the pain is usually worse in the morning and wears away as the day advances.

Syphilitic Lichen is a papular eruption, but it is not at all common especially among females. It runs a very tedious course as a rule.

Psoriasis and Lepra are both squamous eruptions. Psoriasis may be diffused — P. diffusa, or consist of large patches on the back of the neck or shoulders — P. guttata; or confined to a spot — P. palmaris & P. Plantaris. These latter are always syphilitic, in fact most eruptions upon the palms and soles are syphilitic. They occasionally cause deep painful cracks and unless properly understood are difficult to cure. Syphilitic Psoriasis is much darker in appearance than the simple eruptions of the same name. Even the scales which cover the patches altho' thin and silvery are much fewer and darker in colour than those of the simple eruption. The eruption usually appears in crops and is not at all itchy. Simple Psoriasis attacks the knees and elbows most frequently.

The only further practical observation which we have to make before

Lepra.

Syphilitic Alopecia.

leaving the subject of Psoriasis Syphilitica is that not unfrequently when present on the hands, it is the only local manifestation of the Syphilitic diathesis. It is specially apt to recur on the palms of the hands, and may be present years after the appearance of the primary sore. This condition when understood and recognised is very readily cured by the local application of Nebra's Tar Pomade with the internal administration of Green Iodide of Mercury and Arsenic.

Lepra is of a darker hue than Psoriasis, and leaves more of a coppery stain. It is also a circular eruption, but has no scales in the centre, which is more or less depressed. Its favourite site is upon the chin and forehead. Both of these eruptions heal in the centre, but tend to spread at the edges; and when they are undergoing a cure they heal faster than they spread; and, if the healing process go on, each circle becomes broken, and has a wavy, serpiginous, or gyrate appearance.

Simple Psoriasis has often a coppery appearance, and any eruption upon the legs where there are varicose veins may also be coppery.

Syphilitic Alopecia usually occurs in the form of a general falling out of the hair, but we may have it coming

Diagnosis from parasitic affections.

out only in patches leaving bald circular spaces. This is known as Alopecia Areata, and is by far the most serious variety as regards prognosis. These bald spaces vary in size, and range from the size of a shilling and upwards, the bald part being erythematous. It is in no way connected with any of the parasitic affections of the skin some of which e.g. Tinea, also cause circular bald patches. In Syphilitic Alopecia the hair usually comes out in handfuls; in the parasitic forms the loss of hair is more gradual, and the hair which remains has a dull appearance, having entirely lost its natural gloss. The Syphilitic varieties depend not like the parasitic upon a fungus but are due to atrophy of the pulp caused by interference with the nutrition of the hair papillae. The early form of the disease is often absent in those cases which have received treatment, but when it is present, it is quite amenable to constitutional treatment and local applications are seldom required. So soon as the hair ceases to fall it is a fair indication of the success of the treatment, although it does not warrant its suspension.

Alopecia may be due to simple debility such as we have after fevers and other severe illnesses; and it is often hereditary; but in the Syphilitic forms we have frequently other general symptoms and local appearances to guide us. It occurs frequently in

children as well as adults: and the hair of the eyebrows and eyelashes is often lost.

The late variety of Alopecia is more serious and difficult of cure, and here, in addition to constitutional treatment, local applications are often of much service. If then the case does not improve or yields but slowly to internal treatment, any hair which remains should be cut very short or shaved & the following 'Hair Restorer' may be applied once a day:—

℞ Spt: Ammon: Aromat: ℥i
Tinct: Lyttae
Glycerini aa ℥iv
Otto de Rosae m ♏viii
Aq: Rosae ℥vi M

or ℞
Tinct: Lyttae ℥i
Eau de Cologne ℥i
Glycerini ad ℥vi M (Macleod)

or if there be only two or three bald patches, the following after Liveing may be applied by means of a Camel hair pencil once or twice a day

℞ Aceti Cantharides ℥ii
Acid: Acetic: Fort: ℥i
Glycerini ℥iv
Aq. Rosae ℥iii
Spt: Lavand: ℥ss M

Eczema of nates.

Onychia.

Levigated Red precipitate powder mixed with perfumed Vaseline may be applied at night and washed off in the morning.

If the Alopecia be accompanied with dry seborrhoea, giving rise to much itching, the head may be washed with a mixture of soft soap and methylated spirits.

Eczema of the nates is common in syphilitic subjects, and is probably due to the irritation of acrid discharges.

Onychia may occur either as a secondary or as a tertiary affection. When secondary it accompanies one or other of the various eruptions already alluded to. As a rule however, if the patient's health be fairly good notwithstanding the syphilis from which he suffers, Psoriasis is the eruption most frequently accompanying it; but if on the other hand the health be bad, it occurs along with pustular eruptions such as Rupia and Ecthyma. In the former case the Onychia is more or less dry in character, while in the latter it consists of a moist ulceration. Generally however it occurs in low states of the system. It is an affection common to Infantile and acquired Syphilis, and affects the nails of the fingers as well as those of the toes, and the large nails are more commonly affected than the small ones. The root and edges are chiefly affected, which become inflamed, and the surface

Treatment of Onychia.

of the nail grows rough and breaks readily, but is not much thickened, although it becomes soon black and scales off, leaving generally a dirty ulcerated surface underneath. Before this however pus frequently escapes at the sides of the nail. This is a very chronic affection, but its course is much influenced according to whether the patient has or has not been under treatment and in good or bad health. As the patient improves it is interesting to notice the line of demarcation dividing the unhealthy from the healthy portion of nail; and sometimes several transverse marks occur as an indication of alternating improvement and relapse.

In the treatment of Onychia the greatest cleanliness should be observed. In the suppurating stage Charcoal poultices may be applied and followed up by such dressings as Black wash or Potassio-tartrate of Iron solution. In severe cases the entire nail requires to be removed, after which it is often useful to apply the thermo-cautery with the view of setting up healthy action in the part. At the same time however constitutional treatment suited to the condition of health of the patient must not be neglected, as without it no local treatment can have any permanent good effect.

Acne Syphilitica.

Bronzed eruption.

Treatment of Acne.

Syphilitic Iritis.

Acne Syphilitica is one of the late secondary syphilitic eruptions and is most apt to be seen in strumous patients and those in a low state of health. It is one of the pustular eruptions but is not at all itchy. It occurs upon the face, shoulders, chest and thighs and is quite a distinct eruption from Acne Vulgaris. It is a chronic eruption, fresh pustules appearing as the old ones fade. The skin does not give way, but as the eruption subsides the skin covering the pustule desquamates from the centre outwards, & the pustule itself dries up into a greenish black prominent crust, surrounded by a red base, after which a coppery tint remains upon the skin for a long time which is converted into a white scar or cicatrix, resembling a leech bite, and also puts one in mind of the marks left upon the abdomen after pregnancy and due to overstretching of the integument.

A form of Acne produced by Bromide of Potassium alone or combined with Chloral must be distinguished from that due to Syphilis.

The treatment should consist of Mercury with Cascarilla combined with Iodide of Potassium and full doses of Potassio tartrate of Iron.

Syphilitic Iritis like Rheumatic and other forms of

Iritis is usually excited by cold and is far the most common form of Iritis. From the former affection especially we must carefully distinguish it so that the patient may if possible have all the advantages of early anti-syphilitic treatment. As a rule however we have other specific affections to guide us in the diagnosis. Contrary to what we might expect it is not an affection of the weakly, but usually occurs in those who are except for the syphilis in fair health. It is more common in women than in men, and especially so in the case of "widows" so called. (Reid).

The pupil is generally contracted, but it may be irregular, although it is more apt to be so after attempts have been made by Atropine to dilate it. The iris is notably altered in colour from that of the healthy one, and there is more or less sclerotitis and the whole eye has a dull muddy appearance. There is a great tendency to the formation of tubercles or what some call Condylomata or gummata, and of these there may be several or one only, and if more than one they are all situated at one point. They are most common in patients who have had Mercury for some former affection. There is often more or less adhesion of the iris at the seat of a tubercle, so that we often find that on coming to dilate the pupil it adheres at this point, and it has been found more diffi-

Treatment of Syphilitic Iritis.

cult to break up a single such adhesion than a complete one. There is always more or less pain in the supra-orbital region which is generally worst at night. Usually one eye only is affected at a time, but, as soon as it gets well, the other eye may take on the same form of inflammation.

In all cases we must endeavour to get the pupill dilated at once, and, when we have succeeded, we must keep it so. At first it may be necessary to drop in Atropine every two, three, or four hours, but afterwards it may be sufficient to have it done two or three times a day. The ordinary B.P. solution should be used, while to assist this and relieve the pain Extract of Belladonna may be rubbed upon the eyebrow two or three times a day, or we may add to it white precipitate thus:-

℞ Ext: Belladon: gr 10
Hydr: precip: Alb: " 5
Axungiae ℥i M

We must be guided by the symptoms as to the necessity for bringing the patient rapidly or not under the influence of Mercury, but, as a rule, the earlier this can be done the better. Before doing so however it is well in all cases to give the patient a Calomel purge. We are told that Mercury acts better when preceded by the application of leeches, from three to six, to the temple of the affected side, but, unless the pain be very severe, it is not necessary

to have recourse to these. We may give from 2½ to 4 grains of Calomel combined with ½ a grain or a grain of powdered Opium or from 3 to 10 grains of Dover's powder, every six hours, night and morning, or every night, depending upon the case. The purgative properties of the Calomel overcome as a rule the constipating tendency of the Opium, but it is usual to give a Black draught in the morning. The effect of Mercury here is often magical, so that in doubtful cases it may be used as an aid to diagnosis. As a rule it takes five or six days for the mercurial to exert its therapeutical effect, and then the symptoms begin to yield. We must not here however stop our treatment, but may either diminish the dose or give it less frequently than formerly, e.g. every second or third night, so that a gentle effect may still be kept up, and if there be symptoms of ptyalism they may have time to pass off. After the first few days we may put our patient upon small doses (gr 5) of Iodide and large doses of Bromide of Potassium (gr 15 to 30) two or three times a day, or, if considered necessary still to keep up the Mercurial effect, small doses of Perchloride of Mercury may be used. Some patients however will require Quinine, Iron, and nourishing food. By applying once or twice a day finely powdered Calomel to the surface of the eye, by means of a Camel hair pencil, the haziness will be removed which often remains for some time or McKenzie's

Syphilitic Choroiditis.

eye lotion may be used.
During the acuteness of the attack a shade or pad should be used to keep the eye at rest or shade it and the sound eye from the more direct rays of the sun, but it is necessary that the patient should remain in bed for the first few days, and his room ought to be shaded but not dark. Poultices must never be applied.
In the Lock Hospital it was noted that Syphilitic Iritis did not accompany but rarely any of the pustular Syphilodermata. When Iritis was present along with a secondary eruption that eruption was found usually to be either psoriasis or lepra; occasionally however specific Iritis made its appearance after all trace of the secondary eruption had disappeared, and even while the patient was under mercurial treatment. In most of these cases cold was the exciting cause.
Syphilitic Choroiditis is not quite so often seen as Iritis, although both affections may exist simultaneously in the one patient. It is generally one of the secondary manifestations of Syphilis, & although it is easily recognised when other specific affections exist to guide us, it is almost impossible to recognise it without some one or other of the evidences of Syphilis.
There is considerable dimness of vision, the patient saying that there is a mist before his eyes, and there is often a feeling

The mucous papule or patch.

Condylomata

as if the eye were too large for its socket. The pain is much more intense and the intolerance of light is much greater than in Iritis, but as in the latter the pain is much increased at night. Sometimes the conjunctiva is unaffected, but generally there is more or less Chemosis.

When Choroiditis occurs late in the course of the disease, the prognosis is more serious, as in fact are all late syphilitic affections of the eyes. In any case it runs a more or less tedious course, & that in spite of active mercurial treatment, which is required early to be of much service.

<u>The Mucous Papule or Patch</u> affects generally the muco-integumental surfaces, e.g. the external canthus of the orbit; alae of the nose; the angles of the mouth; the orifice of the anus, &c.; in fact any place where two surfaces are prone to rub against one another is apt to become the seat of ulceration in a Syphilitic subject. They belong to the secondary forms of Syphilis, and it is now known to be possible to inoculate a virgin subject with the thin serous or muco-purulent discharge accompanying them. Condylomata are also common in this stage, and from the anus and buttocks being their favourite seat, they are often mistaken for piles. By some they are known as "bottom sores." A discharge which in dirty people ~~accompanies them~~ has an offensive odour accompanies them. When situated near the anus, they are

Piles.

Condylomata.

The Papilloma.

generally pedunculated and united by a common base at the orifice of the anus, and on this account are often mistaken for piles. In passing, it may be remarked that we have again and again noticed syphilitic subjects and those suffering from other forms of venereal disease, especially females, to be frequently affected with piles; but of course these are easily distinguished from Condylomata, and in all probability are due to the irritation caused by sores, discharges &c.

Condylomata never bleed, and, when growing upon the buttocks are more or less flat, and when not kept clean have a thin purulent discharge, but when clean they have a raw meat appearance. Of the two forms, the mucous patch is the more common, and it is more frequently seen at the commissure of the lips than in any other situation. In the Lock Hospital and even in the streets little difficulty is experienced in identifying the mucous patch at the commissure of the lips or of tracing it when need be to its origin in the Syphilitic poison.

The <u>Papilloma</u> or papillary growth resembles the Condyloma but appears as a great number of these closely connected & covering a large surface. It is situated generally upon the perineum and as a rule is more or less symmetrically arranged on each side of it. It is very painful, is accom-

Warts.

Treatment of warts.

panied by a slight discharge, and is exceedingly chronic.

Warts are of frequent occurrence, and differ from simple or strumous warts in their being usually situated about the genital organs, anus or thighs, while the former are more apt to occur about the fingers, neck and face. Simple warts are generally considered to be one of the manifestations of the strumous diathesis, which strengthens our opinion as to the close relationship between syphilis and struma. Venereal warts are more frequently seen in women than in men, & this may be accounted for by the secretions from the former favouring their development. They are often accompanied by a considerable amount of itching. It is necessary carefully to distinguish between ordinary venereal warts & those indicative of constitutional disease.

When few and small and without a pedicle, the strong Tincture of the Perchloride of Iron should be applied every other day. If syphilitic, Calomel dusting, which is composed of Calomel and Hubbock's Oxide of Zinc, in the proportion of two of the former and one of the latter, or the two powders in equal proportions, or one part of the former and two of the latter, according to the requirements of the case, should be applied once or twice a day. In the case of Children however the Calomel is too strong and irritating.

and should not be used. Before each application, the parts should be carefully and well washed with soap and warm water and thoroughly dried. Of course if they be simple venereal warts, the Iron application alone will be required. If there be much tenderness and secretion it is well to poultice in the first instance for a few days previous to applying the dusting powder.

In some cases of mucous patch solid nitrate of silver or Burnett's solution may be applied.

In warts having a pedicle, nothing is more simple than to snip them off with scissors curved on the flat, but when they are large they should be removed with the knife from their root level with the skin, otherwise they are very apt to grow again. The bleeding which follows is seldom other than trifling, and may be arrested by holding a pad of dry lint to the parts or touching them with a solution of perchloride of iron or the solid nitrate of silver.

In cases where the warts cover a large surface, and are small, short and without a pedicle, they had better be removed by means of the actual cautery. Lately, we have removed them by means of the Thermo-Cautery, to be described. By this means the difficulty may be got over in a few minutes, and all risk of bleeding avoided. Unless however

they be very thoroughly touched up, a second or even a third operation may be required. In cases where there is a large mass of warts or Condylomata, the thermo-cautery scissors have been frequently used with advantage. We are inclined to think, however, after a very thorough trial of the scissors, that they will be found of much more service in removing external pedunculated piles. For the former purpose the groove in the scissors is very apt to get clogged up, necessitating the cleansing of the scissors in the middle of the operation, which is very inconvenient, for, before we can do this, we must stop blowing the bellows, and by the time the scissors have been allowed to cool sufficiently to admit of cleaning, they require re-heating before the operation can be proceeded with. The bellows requires to be worked much more diligently while using the scissors than any of the other points of the cautery, and occasionally the india rubber tubing becomes disconnected from the handle owing to being stretched during the operation, and this is followed by the heat going down, necessitating re-heating, and occasioning annoyance & delay. By a little care however, as well as by having the tubing thoroughly fastened to the handle, this may be avoided.

Treatment of Mucous Patches.

Nitric Acid is too strong for ordinary use, but where only one or two warts exist a single drop may be applied, which generally causes it to fall out from the root in a day or two.

A saturated solution of Chromic Acid is very effectual in severe and obstinate cases, but it must be used with great care, otherwise severe pain is produced, and the entire surface may ultimately slough.

In the management of such cases, constitutional treatment should be combined with one or other of the above local applications, and we have frequently found the Mercurial Vapour Bath combined with the internal use of small doses of Perchloride of Mercury very effectual.

Mucous Patches in addition to Constitutional treatment require to be touched once or twice a week with the solid Nitrate of Silver or Sulphate of Copper. When they occur upon the tongue, lips, cheeks, or angles of the mouth, smoking must be rigidly abstained from, as the heat, friction, and irritation thereby produced tend to prolong the affections, and even when they have been cured render relapses of frequent occurrence. Smoking is also believed to be a frequent mode of communicating disease to others; but Diday says that Syphilis so resulting — from secondaries, has a longer period of incuba-

Umbilical Sores.

Syphilitic affections of the Tongue.

tion and is less severe than when otherwise contracted.

A case has been recently reported where Syphilis was communicated to a father by skin grafting, the skin being taken from his son. As a protective against such an accident, M. Féréol, who relates the case, proposes that grafts should be taken from animals.

When mucous patches exist in the nasal passages, it is sometimes convenient to have the passages washed out by means of a douch, constructed like a syphon, and containing tepid water and permanganate of potash.

<u>Sores of the Umbilicus</u> are rather uncommon in private practice, yet they occur with sufficient frequency to warrant a remark. When such occur they are mostly due to Syphilis, & appear as an ulceration, giving one the impression of that which we frequently see after the removal of the umbilical cord, but such a sore occurs in adults as well as in children. The discharge has a peculiarly disagreeable odour, and the sore is a very chronic one unless it be properly treated. It yields to the application of a solution of potassio-tartrate of iron or an ointment of Calomel or white precipitate.

<u>Syphilitic Affections of the Tongue</u> Syphilis is a frequent cause of ulceration of the Tongue, which is usually a secondary affection. Most frequently the ulcers are situated upon the edges, but

occasionally they may be seen upon the dorsum, but these usually belong to the tertiary affections, and are due in many cases to the breaking down of a syphilitic gumma. When they occur upon the edge of the tongue there is often a corresponding ulceration of the inside of the cheek. They are usually superficial and are not accompanied by any induration, but have as a rule a more or less dirty appearance, and when they heal a cicatrix remains. Unless influenced by specific treatment they are very chronic. They are accompanied by slight glandular enlargement. They are frequently met with in smokers, and there is no doubt but that smoking both aggravates them and makes them more chronic, and renders the patient liable to frequent relapses. They are of more frequent occurrence when the system of the patient is in any way reduced.
It is necessary carefully to distinguish these from simple ulcerations such as aphthae, those produced by decayed teeth & mercurial ulcerations. Their history, origin, progress, seat, number, shape, appearance, base, the state of the general health, the condition of the glands, and the treatment, one or all combined assist us in arriving at a conclusion as to their exact nature. Dyspepsia is a frequent cause of aphthous ulcerations of the tongue; so also the sharp points of decayed teeth often set up ulceration upon the side or under surface of the tongue;

Tertiary ulcerations of the Tongue – Gummata.

Cancer of Tongue – Epithelioma.

but, in both cases, the ulcers are small, multiple and painful; & as a rule run a comparatively short course. Syphilitic ulcerations on the other hand occur along with other secondary affections such as ulceration of the tonsils, alopecia and condylomata, and their course is more or less protracted unless influenced by judicious treatment. In mercurial ulceration, we have other symptoms of the effects of mercury to guide us, such as the state of the gums and the odour of the breath, but fortunately this is a comparatively rare affection now a days.

With regard to the deep ulcerations of the tongue, these as has been noted are generally due to the breaking down of a syphilitic gumma. In this state it bears a close resemblence to cancer, having an irregular shape, everted edges, and a slonghy base; but at an earlier state and when softening, it has the appearance of a small abscess gummata when they break down, and no matter where situated generally have at first a slonghy appearance. Their favourite site is upon the centre of the tongue, and in this situation there is always a considerable amount of induration prior to their breaking down, but they cause no pain but give rise to considerable inconvenience from their bulk.

Cancer is always accompanied by more or less induration, and

may begin in an old sore of syphilitic origin. It usually occurs in the form of epithelioma, and in patients who are over 40 years of age. The disease is usually situated on the posterior third of the tongue not far from the root, and, as it extends, its tendency is downwards towards the pharynx and not towards the tip. A broken tooth or a friend's pipe is generally blamed for having caused it. Pain occurs at an early stage and is often severe and saliva flows freely from the mouth. Epithelioma of the tongue is more frequently mistaken for syphilitic ulceration than any of the other forms of disease. As a general rule from the cases seen in hospital there was little difficulty experienced in making out a diagnosis. Epithelioma of the tongue was more frequent in persons about 60, while syphilitic ulcerations usually presented themselves in the young or middle-aged. Treatment helped very wonderfully in clearing up the diagnosis. A syphilitic ulcer of the tongue under judicious treatment will very soon put on a healing appearance; while, if the ulcer is malignant, no such beneficial effect will be observed,— the ulcer instead of healing will probably steadily advance. There is another peculiarity to be noticed which is worthy of mention. When the glands are implicated in epithelioma of the tongue, the glandular disease is limited to those under the jaw; while in

Ichthyosis or Psoriasis of the Tongue.

Treatment of Syphilitic disease of the Tongue.

Syphilitic ulceration there will be found what Ricord described as anterior and posterior cervical adenopathy.

Ichthyosis or Psoriasis of the tongue is a tertiary affection, which covers the whole surface of the tongue, and may also at the same time affect its edges. Here the tongue has a glossy appearance, but is hard and warty; and by some it is classed with the gummata of which it may perhaps be an early stage.

In most cases of syphilitic disease of the tongue, both constitutional and local treatment are required. The usual constitutional treatment of Perchloride of Mercury and Iodide of Potassium assisted by a mouth-wash of Chlorate of Potash will generally suffice. Mercurial gargles of Perchloride of Mercury (gr ¼ to 1 oz of water, with a sufficient quantity of glycerine to render it less active upon the teeth) are often of great service; but the patient must be cautioned against swallowing any of it. It is surprising to notice that affections of the tongue often make their appearance when the patient is under treatment, and which cannot be said to be due to the mercurial employed. In such cases the patients system is usually at fault; but when they do not yield to the above treatment, they should be touched two or three times a week with solid Nitrate of Silver or Sulphate of Copper,

Unusual variety.

nothing acts better than the latter; and we have known a case heal very rapidly under the influence of Sulphate of Copper, which had hitherto made very little progress with nitrate of Silver. In any case of doubt as to the nature of the ulceration, the diagnosis is usually cleared up by two or three weeks of Constitutional treatment; and without this it is sometimes impossible to arrive at a definite conclusion, as there may be no other syphilitic affection to guide us. If improvement do not take place after two or three weeks treatment, it should not be continued, for in the event of the case being one of Cancer, degeneration of the growth may result, and so the case may be aggravated rather than benefited by treatment.

There is however one variety of syphilitic disease of the tongue, which neither yields to constitutional nor local treatment, and yet it cannot be said to be cancerous, for after it has been excised it does not return. Such cases have probably commenced as ordinary syphilitic ulcerations, and, not having been treated, they have assumed a more or less malignant appearance. A form of disease of this kind we have repeatedly seen in the wards of the Lock Hospital, and situated not upon the tongue but upon the Vulva. This disease was not amenable to any constitutional or local treatment, but

Infantile glossitis & Stomatitis.

see also page 145.

it was readily cured by excising the part, the knife cutting through sound tissues. Doubtless we have hybrid cases — cases of cancer occurring in the subjects of old standing Syphilis, which have been thereby modified. In these cases the characters of epithelioma are masked by the constitutional affection, but the prognosis is the same as in ordinary cases of epithelioma, — as is also its course, and, as regards the treatment, some even assert that medicinal treatment is hurtful; but certain it is that nothing short of excision is of any value, which may be accomplished either by the knife, ecrasseur or thermo-cautery.

In infants, syphilitic glossitis and stomatitis are usually ulcerative, and occur in very bad and low states of the system, so that the prognosis is often also bad, but if seen sufficiently early, they are very readily cured by the careful administration of grey powder, half a grain night and morning.

When we are satisfied as to the true nature of any case, we need not arouse our patients suspicions by making enquiry as to a previous history of syphilis, more especially if the patient be a married woman, for we have known a patient, who had previously had no knowledge of being the subject of constitutional disease, having been led on reflection to ask her at-

Syphilitic affections of the Anus.

Treatment

ʒi in ℥i of Zinc ointment.

tendant if such were the case and if it coned possibly be the cause of her child's death. In such cases we generally find that women know more of the nature of their complaint than they appear to the physician to do.

Syphilitic affections of the Anus. Syphilitic ulcerations at the anal orifice are of frequent occurrence in children as well as in adults, and it is important to distinguish the syphilitic from the simple forms of ulceration. In children it is as a rule tolerably easy to recognise the former for we generally have other evidences of syphilis to guide us, and besides these are the only forms of ulceration which are met with in children. In adults however it is not always such an easy matter, but in doubtful cases the presence of one or more of these ulcers may assist us in a doubtful case. They usually come under our notice as a cause of pain during or after defaecation.

The Treatment required is both constitutional and local, but cleanliness takes an important part among the local applications. Calomel or White precipitate ointment may be applied two or three times a day, but some sores require to be touched occasionally with Nitrate of Silver. The Vapour Bath is as a rule very suitable along with other internal medicine in such cases, and Calomel and Oxide of Zinc may be applied as a

Diagnosis of Syphilitic Eruptions.

Should be examined in day light.

Coppery tint.

Symmetry.

Itching.

dusting powder if the sores be external.
The discharge from these sores is now known to be inoculable.

A few points of importance with regard to the diagnosis of Syphilitic Eruptions.

We should always examine an eruption in day-light, for gas-light alters the colouring, and much in the diagnosis of diseases of the skin depends upon the colouring.
The coppery tint, so often spoken of in connection with syphilitic eruptions, is most common in the later stages of the disease, or when the eruption has been out for some time, but may be entirely absent at an early stage. We may, however, in some eruptions have a coppery tint without there being any syphilitic taint, although the absence of the coppery tint does not warrant us in saying that the case is non-syphilitic.
In the early stages the syphilitic eruption is symmetrical and superficial, because it depends upon blood-poisoning; but in the later stages it need not be symmetrical, and is usually deep, because it depends upon tissue poisoning.
In the early stages of syphilis, there is no itching, while in the later and more chronic stages, itching is quite common. It is hardly necessary to enquire as to itching being present, for if it be we may see the marks of the nails upon the skin, and if a syphilitic eruption bear the marks of scratching, this is often due

Edges of the eruption.

Sites.

Effect of Poultices.

Duration.

General & local eruptions.

Curability.

Dry & moist eruptions

to pediculi.

The edges of the eruption are abrupt, and in circles or segments of circles.

Eruptions upon the Shoulder are commonly syphilitic, and those of the face and especially of the chin are usually syphilitic, unless they be parasitic.

Poultices sometimes help to bring out a syphilitic eruption, e.g. when applied over a joint to relieve Syphilitic Rheumatic pains.

The duration of an eruption is of importance in diagnosis; if it be chronic e.g. two years, in all probability it is syphilitic.

Secondary syphilitic eruptions are usually general, i.e. they cover the whole body, but leave intervals of sound skin; whereas localised syphilitic eruptions are generally tertiary, — they are confined to one spot, on account of their being due to tissue poisoning. These two points are of importance as bearing upon the treatment, for in the former, Mercury alone or in combination with Iodide of Potassium is most useful; while in the latter, Iodide of Potassium alone or in combination with Potassio-tartrate of Iron will usually but not always succeed. As a rule the former are easy and the latter very difficult of cure.

A localised eruption is either syphilitic or parasitic.

A syphilitic eruption occurring in a healthy person is usually

Polymorphism.

Site.

Symmetry.

Duration
Tendency to relapse.

Influence of constitution upon eruption.

Effect of certain medicines.

dry, but in a broken-down constitution, it tends to ulcerate and suppurate.

We have often two eruptions in one person at the same time, the one simple and the other syphilitic, e.g. Scabies often accompanies syphilitic eruptions, so frequently does this occur that we are led to believe that the itch insect likes syphilitic blood.

Syphilitic eruptions appear mostly upon the chest, the upper part of the abdomen, the roots of the hair at the back of the neck, and at the edge of the nose and mouth.

It is interesting to notice the symmetrical arrangement of syphilitic eruptions, and this is nowhere better seen than upon the palms and soles.

As a rule syphilitic eruptions come out and disappear slowly. Relapses are of frequent occurrence, and usually a different eruption comes out each time.

In strumous subjects and those of delicate constitution, the eruption is apt to present itself in the Impetiginoid form, and so, to a certain extent, masks the original eruption. Rupia & Ecthyma both indicate a cachectic state.

It should be borne in mind that certain medicines may give rise to peculiar eruptions. Arsenical eruptions are like syphilitic acne, but are not so coppery. Copaiba rash resembles Roseola and appears upon the hands, arms, knees, feet and abdome. There is

generally an odour of Copaiba in the breath or about the body. Iodine rarely produces any eruption in Syphilitic subjects, for we find that the whole effect of the Iodine is expended upon the Syphilitic poison. In the same way we seldom have Coryza or Lachrymation from using Iodide of Potassium in Syphilis, and in the event of either taking place, the dose should be increased or even doubled. In healthy subjects, Iodide and Bromide of Potassium frequently give rise to an eruption upon the face and shoulders resembling Acne, which by some has been called 'Confluent acne'. We however prefer to call it an Iodide or Bromide eruption as the case may be. It may appear in children as well as in adults, and may even continue to come out after the medicine has been stopped for some days; but, as a rule, if the medicine be stopped the eruption will usually fade. Chloral Hydrate sometimes causes an Ichthyematous eruption, of which we remember to have seen an instance in the Glasgow Royal Infirmary in the case of a child who was suffering from Tetanus and was being treated with Chloral and Bromide of Potassium.

Bichromate of Potash produces in the jaws and alveolar processes of those who work at it a peculiar disease of the bone which must be carefully distinguished from that produced by Syphilis or Mercury.

Sulphur may bring out a Syphilitic eruption, an example of which

Throat affection often very chronic.

Diagnosis of Constitutional disease from mucous patches at the angles of the mouth.

we remember to have seen in a female patient who was suffering from secondary syphilis, and whose eruption was disappearing under treatment, till, acting upon the advice of a friend, she took some sulphur when it reappeared in the course of a day or two. In the same way also at the present day, it is a common practice for persons who have had syphilis, making use of the baths of Bourcine, with the view of bringing out evidences of Syphilis, should it be in the system. At the same time a common warm water or Turkish bath is quite as effectual as the above, and the free use of ardent spirits frequently produces a like result.

The throat affection of constitutional syphilis is at times so mild as to pass unnoticed or to appear only as a trivial amount of hoarseness, and yet the peculiarity of these affections is that they may continue for an indefinite period.

Sores or mucous patches at the angles of the mouth are nearly always diagnostic of Syphilis in children as well as in adults; and their presence may lead us to investigate a case more thoroughly than we would otherwise do, and even at times we may be warranted in employing constitutional treatment without making any special examination, and in this way we may avoid exciting any suspicions on the part of the patient, especially if we have a female to deal with.

Observations on the treatment of some forms of venereal disease.

by

David Tindal, MB. Glasgow.

Volume II.

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These sores are infectious, but of course from their situation are not so frequently the means of conveying disease as are like sores in the neighbourhood of the genital organs. They are easily cured but are as easily reproduced, in fact, in persons who smoke they are constantly recurring.

If we have paralysis of the sixth nerve, shewn by internal squint, or paralysis of the third nerve giving rise to dilatation of the pupil, drooping of the upper eyelid and external squint, we may suspect the case to be syphilitic. see page 128.

Although a person be the subject of constitutional syphilis, he may yet enjoy good health, and may even increase in weight; but as a rule he will confess he is not the man he once was. Even in tolerably severe cases he may gain flesh, although the system of both husband and wife may be so thoroughly saturated with the syphilitic poison as to make it impossible for utero-gestation to be continued beyond the fifth month in successive pregnancies. We know of such cases in which no finer looking women can be seen anywhere, and yet the products of conception turn out to be thoroughly diseased again and again.

In other cases again of a severe type, loss of flesh is so marked as even to be remarked upon by the patient & friends. Experience alone will enable one to become acquainted with the

Peculiar odour of syphilitic patients and wards.

physiognomy of syphilitic subjects, whether they be children or adults; for we cannot in many cases say by a person's appearance that he is the subject of syphilis in the same manner as we are enabled to do with strumous subjects. Syphilis is common to all complexions, ages, and ranks, and we often have the two diatheses struma and syphilis combined in the same subject, which is a very bad mixture indeed. As a rule however although we know that beauty is one of the special characteristics of struma, to which however there are many exceptions, we may say that rather a want of beauty characterizes syphilitic subjects, although even here unless the system be deeply affected, the natural beauty may not be much marred.

We have frequently noticed a peculiar odour to emanate from syphilitic patients, more especially those who suffer from condylomata and other affections accompanied by discharges; and we even notice venereal wards both for males and females are peculiarly "musty", no matter how well they are ventilated. This may partly be due to a peculiarity in the perspiration the same as one notices in the case of phthisical patients.

Although we have endeavoured to lay down distinguishing marks to help us in the diagnosis of difficult cases,

The importance of Syphilis, but should not be over-estimated.

Influence of Syphilis upon longevity.

yet it must be distinctly understood that there is no rule which will be found applicable in all cases, e.g. we may find a syphilitic eruption accompanied by considerable itching and a non-syphilitic one entirely free from itching, but, as has been already stated, this is the exception and not the rule.

Although syphilis is a disease of great importance and sufficiently frequent as never to be forgotten in dealing with any case, yet we must not be too ready to ascribe to Syphilis such diseases as Consumption and several skin diseases, which can never be regarded as the outcome of Syphilis, a disease which we do not think affects one half of the human race.

The average duration of life of syphilitic subjects is somewhat shortened in most cases and very considerably in others as a result of brain and other lesions of vital organs. We know also how high in Children the mortality from congenital syphilis is. Prostitutes seldom live many years, but we are inclined to blame drink and that of the worst kind for shortening their lives more than disease; and at the same time they are exposed to night air, few and often damp clothes, and bare feet.

It has often been remarked that Syphilis frequently occurs in those

Importance of previous history of Syphilis.

Syphilitic Rheumatism.

Treatment, an aid to diagnosis.

The diagnosis of Syphilitic ulcerations.

who call themselves 'widows', but who are nothing more nor less than one variety of prostitutes.

In our diagnosis of Syphilis, a history of previous Syphilitic infection is of great value, although the absence of such a history does not count for much, e.g. if we have Roseola, we know that it is due to recently contracted Syphilis and not to Syphilis contracted five or ten years before.

Syphilitic Rheumatism is always worse at night, and often so bad as to prevent the patient obtaining any sleep. This is not so markedly the case with Idiopathic and Gonorrhoal Rheumatism. Its favourite situations are the back of the head, the knees, elbows and shoulders.

The effect of Treatment is often a valuable aid in diagnosis, e.g. Syphilitic Rheumatic pains are not at all influenced by the Salicylates, Arsenic or Quinine; Iodide of Potassium is the only remedy which is found to be almost invariably useful when given in large doses, and, so long as the pain continues, it is well borne. In addition to modifying syphilitic affections, treatment has often a wonderful effect in restoring appetite, sleep, and irregular action of the bowels and in difficult cases of verifying diagnosis.

<u>Syphilitic ulcers</u>. Given such an ulcer, its depth is an aid as to whether it is secondary or tertiary, and, in both varieties,

II.

Treatment requires to be modified to suit the particular Constitution

the skin is frequently undermined, the edges more or less perpendicular, and the shape round or kidney-shape. Any crusts or scabs covering such an ulcer are generally greenish. The surrounding skin has often a coppery tint, and, when the ulcer has healed, the cicatrix is even more coppery in appearance and is somewhat depressed, shining, rounded or kidney-shaped, and the skin at the edge of each cicatrix is distinctly pigmented. Cicatrices occurring in circles are suspicious of having a syphilitic origin, especially if found on the legs or posterior triangle of the neck.

A serpiginous ulcer is generally syphilitic.

<u>Peculiarities of Constitution which modify ordinary treatment</u>

The treatment of constitutional syphilis varies according to the diathesis of the patient, eg. syphilitic affections occurring in strumous subjects require anti-strumous remedies, such as Cod Liver Oil in full doses, Iodine, and Iron; and in these we must employ Mercury with great caution, more especially if we have any reason to suspect that our patient suffers from amyloid degeneration of either the liver spleen or particularly the kidneys, to which the subjects of old-standing syphilis are peculiarly prone. To begin treating such a subject or a phthisical one with Mercury will only hasten his end.

Syphilitic Anæmia - and its treatment -

In some cases Mercury is hurtful.

Stimulants to be avoided.

Syphilitic Anaemia It is very interesting to notice the beneficial effects of Mercury in this form of anaemia, which may be very profound, even although it be not combined with Iron or other tonic. Here Mercury seems to be the best tonic, and this is very noticeable in treating infantile syphilis by means of grey powder, when, unless the case be a very severe one, the skin rapidly assumes a healthy appearance under its influence. It has been well said – "Mercury is the Iron for Syphilis." When the patient requires to go about, perchloride of Mercury is the preparation usually preferred, if the health be otherwise good, but if not very good and Mercury required, it should be administered either by fumigation or inunction. If however the system be very low and Mercury cannot be used in the first place, we may require to begin with Iron, and afterwards administer the Mercury in small doses at bedtime. Mercury must never be given when phagedena threatens nor in cases of Rupia and Ichthyosis. In doubtful cases, where Iron Quinine, &c fail to relieve, we should try the effect of small doses of some mercurial; and as a rule the health of syphilitic patients improves rapidly under mercurial treatment, whereas when given to non-syphilitic patients, their health as quickly deteriorates.

During treatment Stimulants must be avoided unless in old-

Preparatory treatment -

Lupus occasionally syphilitic.

Mercury in the treatment of syphilis.

standing cases of Syphilis, in which the system has been very much reduced and which may often be very much benefited by porter, beer, or wine, but even in these cases stimulants must be given with discretion.

In most cases it is well to precede the constitutional treatment by the administration of a Calomel purge, and all through the treatment the bowels should be attended to.

Lupus is considered by some to be nothing more nor less than Syphilis transmitted through several generations, so that while the treatment is usually that of tertiary Syphilis, we see some cases which will only yield to mild mercurials

Mercury in the Treatment of Syphilis.

In private practice secondary syphilis is best treated by the oral method, giving small doses of Perchloride of Mercury, which is the preparation we prefer before any other; and this is better given in the form of the Liquor of the British Pharmacopoeia, as its effects are increased by the chloride of ammonium which it contains, and its dose can be regulated much better than when a given quantity of the salt is prescribed in a mixture. At first small doses should be given, ℥ss = gr 1/32, then ʒi = gr 1/16, then ʒij or ʒii, unless we wish to bring the patient rapidly under the influence of Mercury, when we may employ mercurial frictions either alone or combined with

the above; or Calomel, Blue pill or Plummer's Pill (Pil Hydr. sub-Chlor. Co.), Grey powder, Green Iodide of Mercury with Opium, or the hypodermic injection of a mercurial solution. If we give the perchloride, it is well to combine with it five or ten grains of Chlorate of Potass, so as to prevent salivation. This may be given three times a day after meals so as to avoid irritating the bowels, which it might do if given upon the empty stomach. If we do not wish to push the mercurial, we may order it to be taken only at bed time, administering a tonic or iodide of potassium during the day. With the above preparation and dose we seldom have any gastric or intestinal disturbance and salivation is rare, and if there should be any tendency to it, it may be avoided by using a mouth wash of Chlorate of Potass solution or Sulphate of Alum solution. In this way the patient can go about his usual avocations, and with a little care it can be used for as long a time as may be necessary. It is sometimes convenient to dissolve the perchloride in Tincture of Steel, using the latter in the usual way. In all cases it is important to use fresh mixtures, as when these are allowed to stand for any length of time before being used they are very apt to decompose. Of course in the case of Hospitals where a number of patients are getting the same mixture, it is convenient to

have a large quantity prepared and kept in stock. In some hospitals it is customary to do so, having each mixture numbered, thus No 1. No 2 No 3.

In most cases we derive benefit from open-air exercise, nourishing food, cleanliness, warm baths, and in a few cases, especially those which are more or less chronic, from stimulants. Many cases which we have no reason to believe to be of syphilitic origin are much benefited by Mercury or Iodide of Potassium, but as a rule when an affection yields to either or both of these remedies at first or after others have failed we are justified in suspecting it to be syphilitic. As a dernier resort these medicines should be tried alone or in combination in doubtful cases and those not benefited by other means. Many affections especially Head and Spinal cases are more hopeful as regards prognosis when syphilitic than when malignant; in fact, the chance of the disease being ~~malignant~~ syphilitic is in some cases the only hope we have of recovery; but even in these there is a great tendency to the occurrence of relapses.

Calomel, Grey powder, and Green Iodide of Mercury, even when combined with Opium, are not so suitable preparations for general use as is the Perchloride of Mercury. They are however more useful than the latter when we wish to bring our

patient rapidly under the influence of Mercury; but as a rule we have found them very apt to gripe and produce diarrhœa, which has in many cases rendered it necessary to abandon their use altogether. Even with Opium or Hyoscyamus we have found it impossible to continue the Green Iodide on account of these drawbacks. The Grey powder however appears to suit children better than any mercurial preparation with which we are acquainted. There is no doubt but that Mercury has been much abused; many primary sores however will not readily heal without it, and it is better when we are satisfied that we have such to deal with, to put our patient at once upon constitutional treatment so as to expedite the healing of the sore and so render the secondary symptoms less severe. It is however in the treatment of secondary affections that we derive most benefit from mercurial treatment and less frequently in the tertiary forms. In scrophulous and weakly subjects it should be given with caution and either in minute doses combined with Iron or by fumigation. The length of time it requires to be given depends upon the dose, its effects and the particular case in hand, but it is of no use to give it for a short time; and after it has been given for some time a larger dose is required, as in some individuals it is apt to lose its effect, — the system comes to tolerate it.

Salvation.

The same holds good with regard to Iodide of Potassium. After a time it is well to change the mercurial preparation or to alternate with it Iodide of Potassium instead of combining them.

In the intermediary stage — between the secondary and tertiary, the green iodide of mercury in the form of pill (gr ½) combined with opium (gr ¼–½) night and morning is the most effectual preparation; but it is desirable to make use of a solution of Chlorate of Potass as a mouth-wash at the same time.

In the case of a squamous eruption we may combine Iron or Arsenic with the Perchloride; but Arsenic should not be combined with Iodide of Potassium for such a combination makes an exceedingly depressing mixture, and where the combination is required Donovans Solution (Liq. Arsenici et Hydrargyri Hydriodatis) may be used.

<u>Salivation</u> is now fortunately a thing of rare occurrence, and when it does occur it is more frequently due to the idiosyncrasy of the patient than to any fault in the administration of the mercurial, e.g. we have known of a person having been salivated with less than six grains of Calomel in divided doses and not in combination with Opium. In addition to the use of a Chlorate of Potass mouth-wash as already mentioned, the bowels should be kept freely open

by means of salines; the body should be kept warm; and the food should be nourishing and good. We have known of salivation having been produced by an error in dispensing — giving Calomel in place of Calumba; and the chance of such a mistake happening should make us exceedingly cautious in writing our prescriptions legibly, as well as careful in the use of mercurials in private practice, for nothing tends so much to injure a mans reputation, especially a young man, as the injudicious or careless use of Mercury. We do not now believe that any good is to be got in any case by salivating, but often much harm results, and when it does occur all active treatment requires to be suspended for the time. Exposure to Cold and the free use of ardent spirits are often the chief factors in producing salivation. For those who are particularly susceptible of the action of Mercury, tonics such as Quinine and Porter are required, and when the system will not bear it at all when given by the mouth, we may sometimes succeed with the Vapour Bath. However some individuals can take Donovans Solution without injury and the addition of the Arsenic to the mixture, which the above contains, is often advantageous, although Arsenic alone has little or no effect upon Syphilitic Eruptions even when of a scaly nature, and which when simple are generally much benefited by it.

We should always pay attention to any warning a patient may give us as to the effect of Mercury upon him.
With regard to the effect of Mercury in loosening the teeth, there can be no doubt but that it sometimes has this effect in children as well as in adults; but on the other hand we must not be too ready to blame the drug for we frequently find peoples teeth dropping out simply from the natural absorption of the alveolar processes.
Although children are not so easily salivated as adults we ought to be equally careful in our use of mercurials in them, for though we may not have salivation yet we often have profound anæmia produced; but at the same time we know that children the subjects of syphilis are frequently extremely anæmic apart altogether from the use of mercury.
It is well to remember that when a patient shews symptoms of salivation, not only must the mercurial be stopped, but all local mercurial preparations must also be discontinued such as ointments and dusting powders. This practice is the reverse of that formerly believed in, for, in estimating the beneficial effects of the drug, it was the amount of saliva secreted that was looked to, and not the effect upon the disease.
As a rule persons suffering from syphilis can stand a larger and more continuous dose of mercury than persons in good

health, unless of course the general health be low or there be some idiosyncrasy. The same holds good with regard to Iodide of Potassium, although we occasionally have idiosyncrasies in which it acts as mercury in producing salivation. It seems as if the syphilitic poison and the mercury or iodide of potassium acted against each other thus preventing the development of untoward symptoms. It is remarkable that we almost never see a syphilitic patient suffer from Coryza or any of the symptoms of iodism even when very large doses are employed and continued for a considerable time, but on the other hand some patients suffer severely even from one or two moderate doses of the Iodide, and glossitis is even produced if it be persevered in. An erythematous eruption upon the arms and legs and painful upon pressure sometimes appears, but goes away in eight or ten days: it may be accompanied by other symptoms of iodism. In other cases the patient may complain of nothing but lassitude and a general feeling of discomfort.) Some authorities say that these effects are more apt to be produced by small than large doses and advise in such circumstances to double the dose, and no doubt this does sometimes succeed.

In addition to accidents arising from the internal use of mercury, inunction does sometimes produce Eczema mercuriale if persevered in for any length of time in the same spot, but it usually gets

well on stopping its application in that situation.
One of our greatest difficulties in treating constitutional syphylis consists in our patients getting very soon tired of the medicine. This we find to be a great drawback in our endeavours to treat a husband and wife who are suffering from the disease. We must therefore endeavour to vary our treatment by changing our prescription or making use of the vapour bath, hypodermic injections or inunctions; and we must also arrange to stop the treatment for eight or ten days every six weeks whether there be improvement or not. It is of great importance to have the medicines made as palatable as possible; but as a rule a pure bitter medicine is preferred to a tasteless, sweet or salt one.
By these means we shall often succeed in the treatment & at the same time render it less monotonous.
Persons suffering from Chronic Albuminuria or Diabetes must not get mercury, and it is bad practice to prescribe it for any person who has a phagedaenic sore, in fact such cases are aggravated by its use, and in weakly subjects it actually causes some sores to become phagedaenic, and so brings discredit upon mercury as a curative agent in Syphilis.
Even in this city mercury is prescribed in bulk in the form of Calomel for bilious and allied affections, and the patient

is ordered to take "a pinch" once or twice daily. We have no hesitation in saying that it is this reckless and routine use of mercury the effects of which we have seen in several individuals, which causes our patients so much to dread mercury.

In all cases in which there is reason to suspect syphilis active treatment should at once be resorted to; and we must never be contented as some are with the use of acids and tonics generally, expecting in this way to cure the disease. We must never forget that in so acting or rather in withholding the proper treatment, we are making it probable & possible to transmit the disease to the offspring and others. Some say "leave your cases to nature and avoid mercury as much as possible; seldom use mercurial fumigation or inunction: locally, use nitric acid or water dressing: internally Iodide of Potassium, Zinc, Chlorate of Potash, Nitrate of Potash, Dover's powder, Battley's Solution, or Cinchona, and use hot baths in all cases; Confine your patient to bed; attend to the cleanliness of the linen; give a full diet and one pint of ale daily." With this it is impossible to agree. We are inclined to think that if the believers in such a system of treatment were so unfortunate as to contract disease they would not be contented to submit to such expectant treatment as they advocate in our journals of which

Syphilisation,

the above is a specimen.
When advocating the use of mercury in the treatment of constitutional syphilis in the male, Dr Thomas Edward Beatty said:- "Mercury when given to the man when first diseased would, I firmly believe have prevented this terrible calamity, i.e. the syphilitic infection of the wife; and I would humbly suggest to all who undertake the treatment of venereal disease, that if they have a certainty that their patients will remain celibate all their lives, they may heal up their sores and dispel their eruptions and sore throats in any manner they like; but that they have no right to expose the poor innocent high minded females of society to contamination by marrying men treated without mercury."

Of all the remedies proposed as substitutes for mercury, none was formerly so much in favour as the operation of syphilisation. The advocates of this system say that mercury is an unsatisfactory remedy; that the patient who is taking it requires to keep the house; that relapses are of frequent occurrence; and that those cases of infantile syphilis which are developed to the highest degree are those whose parents have been treated with mercury and are apparently in good health. We have to reply that if mercury be an unsatisfactory remedy, we must continue to use it till we find a better; the patient does not require to keep the house when taking it if it be used as has

been directed. Relapses do take place in some individuals more readily than in others, but, if the patient be properly treated relapses are not of so frequent occurrence; and lastly, the worst cases of infantile syphilis in our experience are those which have been either not treated at all or treated very imperfectly. The value of this operation of syphilization could not be tested for it was performed frequently with the virus of soft sores. The only good it could do was to give the disease time to subside, (and of the value of time in the treatment of syphilis we all know), and to make openings for the discharges to convey the poison out of the system. It is certainly a very filthy process, and requires to be repeated hundreds of times; besides, as it is not applicable for children the number of cases for which it is suited is very much limited, more especially when we exclude altogether the chancroid for which it is not required.

Again, Nitric Acid internally and water dressings are very useful in some cases as has been noted, but it would be a great calamity were we compelled to bind ourselves exclusively to such a form of treatment. Even Iodide of Potassium, Chlorate of Potash, Quinine, and Cinchona are all right enough in some cases, but we insist upon it that others will not get well without mercury in larger or smaller doses at one

or other period of their course, and if they do they will constantly relapse. No more can we expect to cure some cases of syphilis without mercury than we can expect to cure a given case of acute disease without stimulants - substituting beef tea &c for whisky.

We do thoroughly approve of the above recommendation to use baths so as to keep the pores of the skin in as good a condition as possible, for there can be no doubt but that many cases are much aggravated by dirt.

As regards the use of Sarsaparilla, we think that it is only of use in the treatment of Syphilis as a vehicle to other medicines, but was formerly of great value in causing practitioners to abandon their large and poisonous doses of mercury by using sarsaparilla as a substitute. At the present day it and mineral waters are used by some instead of mercury. Quite lately Clifford Allbutt has recommended it in cases where we have sluggish ulcerations & indolent gummata and has been also found to benefit such cases as are not improved by large doses of Iodide of Potassium. The Compound decoction in doses of one pint daily is the preparation recommended. Sarsaparilla, Guaiacum, and mezereon should always be made subsidiary to mercury and iodide of potassium as antisyphilitic remedies.

Mercurial Fumigation.

Syphilitic headaches and Rheumatism are best relieved by half dram doses of iodide of potassium at night, but it is sometimes necessary in addition to give ten or fifteen grains of Dover's powder or half a dram of Bromide of Potassium till the Iodide begins to take effect.

<u>Mercurial Fumigation</u>. The treatment of syphilitic affections by means of the vapours of mercurial salts, although an ancient mode of obtaining the curative effects of the drug, is one which is certainly deserving of our attention, for it is one of the most useful means we possess of combating a variety of forms of syphilitic disease. We are confident that this plan of treatment is not in such general use, at least in private practice, as it deserves to be. Doubtless it is much more easy for the physician to prescribe medicine than it is for him to give a patient a mercurial vapour bath, but we hold that it is very wrong to allow such a consideration to influence our line of treatment. We admit that care is necessary on the part of the physician to avoid being salivated, for this is more apt to occur even in the case of the Doctor than of the patient. We have known of such an accident happening, but, with a little care, all risk of this may be avoided. In the case of nurses who are constantly administering the vapour bath to the patients in hospital we never hear

of any being salivated, and this accident seldom happens to the patients, and this immunity is justly claimed as one of the advantages of this method of treatment; for, although salivation should now only be known as a thing of the past, yet some patients are much more susceptible of the action of mercury than others, and even with the greatest care it does now and again occur. We have no wish that the treatment of syphilis by fumigations should entirely supercede the internal and more usual mode of treatment; yet there are cases which although treated in the usual way may be much benefited by the two methods combined. On the other hand we constantly see patients whose constitutions and with that their complaint might be rather injured than improved by the internal administration of mercury, and who nevertheless are materially benefited by fumigations. It is not necessary that the treatment should be carried out at the patients' house, although it is preferable to do so; but frequently the patient is unwilling that his friends should be made aware of his complaint, and fortunately such a bath can be given in any odd room about our consulting rooms. The usual custom is to entrust the giving of the vapour-bath to the dispenser or other attendant, but of course the patient must be kept regularly under the observation of the physician

And now as to the different ways in which we may give the vapour bath. There is no doubt but that the most simple mode of procedure is that of Mr Henry Lee. His apparatus is made of tin having at the top a small circular basin for holding the water with an elevated part in the centre for placing the Calomel or other salt upon. Underneath is a spirit lamp, which at one and the same time boils the water and volatilizes the Calomel. This lamp is encircled with wire gauze so as to prevent any accidents arising from the flames of the lamp. The whole of this stands upon three small feet, and at the side is a handle to place the bath under the chair or remove it as required. The patient should be seated upon a cane-bottom chair preferably without a back, and a blanket or cloak for the purpose having whale-bone ribs to keep it apart from the body, and usually made of Swansdown, covers the patient and all, special care being taken to have the cloak closely applied round the neck and that it lies flat upon the ground all round. It is better to have the cloak kept in contact with the floor by placing its edges under the legs of the chair. In Hospitals where the baths are used regularly, of course a permanently constructed bath, having a boiler with a safety-valve connected with it and a wooden frame work instead of a cloak or blanket, is the most suitable. In the country, however, where Lee's apparatus is not at hand, a tub

containing hot water (80° F.) and having two heated bricks placed in the water on end, the one for Calomel and the other for generating steam, may be used, or we may dispense with the tub, and merely have two spirit lamps, one for boiling water and the other for heating the Calomel. It is advisable unless the patient be weakly that he should have had a hot bath previous to the employment of the vapour-bath or that he should occasionally have a Turkish bath so as to facilitate desquamation and besides it always hastens recovery to attend to personal cleanliness. Neither of these baths however is absolutely necessary, but either is useful in assisting the action of the mercurial upon the skin and in assisting to keep the eruption out till the affection has been well acted upon by the mercurial vapour. It may be here noted that nothing but the best soap should be used such as Glycerine or petroleum soap. Common soaps are very apt to irritate the skin and so produce in addition to the specific eruption a pruriginoid one or cause the eruption present to assume that character. From 15 to 20 minutes is the time usually allowed for the vapour-bath, after which the lamp may be blown out, and the patient may remain seated for 10 minutes longer so as to obtain the full effect of the bath. When the cloak is removed he may either dress or get to bed according

to convenience, but in neither case do we remove the moisture from the skin unless the patient be weakly, when his skin may be rubbed up. He should however get to bed as soon as convenient, and there should be an extra blanket over him so as to encourage free perspiration, which may be encouraged by giving a warm drink; there may also be a fire in the bedroom. In the morning he should be well rubbed up with a bath towel and during the day he should wear flannel underclothing.

As to the mercurial to be used, we believe that Calomel is the best, and so as to assist volatilization the levigated kind should be used. As a rule from 15 to 30 grains are sufficient for use at a time. Other salts may be used as the Bisulphuret, Grey Oxide, Red and Green Iodide of Mercury, &c. in corresponding quantities. Some say that one salt is more suitable for skin affections & another in throat or bone affections, but after all there is no doubt but that levigated Calomel is the most convenient salt.

In order to save time the water put into the pan should be boiling.

As to the advantages which may be claimed for fumigation; it is a much more manageable mode of treating syphilis than by inunction or hypodermic injection; and in the case of

a married person who does not wish his wife's suspicions to be aroused by his constantly taking medicine, a mild mercurial effect may be kept up by means of the vapour-bath for a considerable time and thus serve in addition the purpose of giving the patient a rest from internal treatment and so produce a greater effect on resuming it.

For skin affections it is simply invaluable, and it is interesting to notice the effects of fumigation in curing only those portions of the integument which have been subjected to the mercurial vapour, although it has usually a good effect upon piles and ulcerated throat which are not usually exposed to the vapour.

There are a few decidedly strumous subjects to whom it would be unwise to subject to the effects of the mercurial vapour, yet in those who are merely weakly it may be the means of gently acting on the system till they have been fed up and enabled to take internal medicines, e.g. a patient suffering from sore throat and unable to swallow may have a spray of Iodide of Potassium or Citrate of Potash applied to his throat or an ordinary mercurial vapour-bath till he has sufficiently recovered to enable him to take and digest nourishment and medicine. Even although a substance be insoluble yet it may be applied to the throat by means of the spray if only it be volatile.

Salivation, diarrhoea and vomiting are rarely produced by vapour baths, and there can be no doubt but that with some people they have a more decided effect than ordinary treatment has. If there should be any tendency to salivation Chlorate of Potash may be used as a mouth-wash as well as internally, or if the patient be very anæmic Iron may be given. As a general rule there is little chance of salivation so long as the patient does not inhale the mercurial vapour. The vapour-bath is much to be preferred to the method of introducing mercury into the system by inunction, and it is safe, rapid, and more certain in its effects and less often followed by relapses and more efficient in ~~ordinary~~ obstinate cases than any other mode of treatment. The more chronic the eruption the more useful will fumigation be. There is not so much fear of catching cold after fumigations as there is with the internal use of mercury, and the former may often be used when the patient has a bad appetite or an irritable stomach when the latter would be quite unsuitable; but frequently when using the vapour-bath the Compound Decoction of Sarsaparilla may be given internally. At the same time however by combining fumigations with internal treatment, the latter may be materially shortened and that without any risk of injuring the constitution.

On the other hand we must be careful in using the vapour-bath in pustular affections or any eruption which indicates a low state of

To be had of Messrs Jonson & Mercer, Bishopsgate St. E.C.
10/ per dozen.

the system in the same way as we would prefer to withhold the internal administration of mercury in such a state of matters

As has been already noticed, local fumigations are exceedingly valuable, especially such as are applied to the nose, mouth, & throat. In this way we may apply the mercurial either in the form of spray or vapour, the latter being used mostly when a mercurial salt is used, and the former when the action of a potash salt is desired. Mr Kane's invention for syphilitic and other ulcerations about the throat and mouth consists of a glass tube 8½ in. long ¾ in. in diameter, and tapers to a point for about 2 inches at one end and a bulb blown on one side of the circumference about 3 inches from the same extremity for holding the Calomel. In the other extremity is placed a cord, which is pierced by a piece of glass tubing small enough to be encircled by the india rubber tubing of Richardson's Ether Spray apparatus, which is used for propelling the fumes of the Calomel on to the part to which the point is directed, when the Calomel is sufficiently heated by a small quantity of spirit, which saturates a piece of sponge placed under the bath in a small pan made of tin or thin iron and hung in the tube by two hooks of iron wire. By means of the above applied twice a week the part is coated with a white film, and

the effect is very marked and it never produces salivation. Alopecia is said to be much benefited by the fumes of Calomel applied two or three times a day. Wm. Lockwood, in the Medical Times and Gazette for April 19, 1879, relates two cases which underwent marked improvement, with the vapour-bath preceded by the subcutaneous injection of the Nitrate of Pilocarpine (gr ¼).

Hot water baths containing about ℥i of Perchloride of Mercury previously dissolved in Alcohol, are sometimes useful in obstinate Skin affections especially those occurring in children.

Fumigations, Baths, Inunctions and Injections are most generally useful in obstinate cases such as have resisted internal treatment.

<u>Mercurial Inunction.</u> Inunction or what is called the treatment of Syphilis by mercurial frictions is a mode of treatment whose action is too well known to require support, and which has been lately recommended in a special manner by some physicians as peculiarly adapted to syphilitic women during pregnancy. This mode of treating Syphilis is of much value in many cases where it is impossible to administer mercury by the mouth, as some stomachs will not bear mercury in any form, vomiting or purging being produced after a few doses, and there are cases where the safety of the patient depends upon the administration of mercury in some form, and by means of

unction we are not only enabled to bring the system completely under the influence of mercury, but we can do so much more rapidly in this way than by any other mode of administration, - it being possible to obtain the effect of the metal upon the system in less than a week, and should it be necessary to keep up this effect this may be managed by means of small doses of the perchloride given by the mouth. By unction the largest quantity of mercury can be introduced into the system in a very short time, and as a rule with the least constitutional disturbance. The most important point in the use of mercury is that it should be continued sufficiently long to exert its specific effect, but if possible we should avoid any of the accidents which may arise from its use. Mercurial frictions have been especially recommended in the treatment of women during gestation and of children. In both it is used so as to prevent gastric and intestinal disturbance and as one of the most effectual modes of keeping the system under the influence of the mercurial. It is a much more simple mode of treating an infant, than is that of giving powders, &c. by the mouth.

On the other hand, it has its disadvantages. Its action may be so severe as to require to be discontinued before it has exerted its therapeutic effects, and the action may continue for some time after its use has been abandoned; thus, it may produce salivation

which may be difficult to control and mercurial eczema may also be produced, but, by a little care these may be avoided in most cases. It is also a rather dirty mode of treatment, and cannot well be carried out in secret as other forms of mercurial treatment can. In such cases however as those of pregnant women and young children it is much to be preferred to other modes of treatment.

The patient should first be prepared for the frictions by having recourse to a hot or Turkish bath so as to make the skin soft & clean. The bowels should then be thoroughly cleared out and an effort made to keep them freely open, but diarrhœa must be carefully avoided. In this as in other methods of administering mercury the gums should be examined before treatment is commenced so as to enable us to detect any alteration indicative of commencing salivation. This is necessary as some people's gums are always tender and spongy and so one may readily be deceived. The diet should always be carefully regulated.

The strong mercurial ointment is generally used, although in the case of persons with delicate skins, e.g. children, it should be diluted with lard or vaseline. From 15 grains up to ℥i are generally used each time preferably in the evening, and the part may be covered with linen or cotton cloth so as to avoid soiling the clothes. In the case of children, it may be applied to

the soles of the feet and a stocking may be drawn on to prevent it being rubbed off, or it may be applied upon a flannel roller as recommended by Brodie either to the small of the back or the thigh. In the case of adults, the inside of the thighs or chest, the abdomen, the inside of the arms, the axilla, & the back, are the parts generally selected for inunction. It must on no account be allowed to come in contact with the scrotum as trouble-some eczema is very apt to be set up. The ointment should be well rubbed into the skin for 15 or 20 minutes each evening, and those who have sensitive skins should have the skin thoroughly washed where the ointment has been previously applied prior to each application. A different part should be selected for the inunction of the ointment each time so as to avoid any tendency to the production of Eczema. The Oleate of Mercury has been specially recommended for use in irritable skins. It may be procured in strengths varying from 5% to 20% and may be reduced with an equal quantity of lard or vaseline, which latter forms a cleanly pomade and is much more pleasant and more easily used than mercurial ointment, and is more suitable for use in better class practice especially if a little perfume be added. A piece the size of a bean may be used every night or night and morning according to the urgency of the case. The above is also useful for assisting the reduction of buboes of irritation, strumous glands, &c.

Outlines of treatment for Syphilis. (Berlin, 1879.)

The Nitrate of Mercury Ointment is also used by some in the same manner.
While using any of these we must keep a watch over the state of the gums, and, with the view of preventing salivation, the bowels must not be allowed to be confined and 10 or 15 grains of Chlorate of Potash should be taken two or three times a day. If notwithstanding salivation should occur, the unction must be at once stopped and the Chlorate continued both internally and also as a gargle and mouth-wash. If the patient be at the same time taking Iodide of Potassium, it must also be stopped, for most cases of salivation occurring during the use of Iodide of Potassium are in those who have previously had mercury which the Iodide sets free.
As a rule it is only necessary to employ this method for from 20 to 30 times, although it may be necessary to resume it should a relapse take place.
Dr. Brandis of Berlin employs unction in removing the induration of the chancre, and in regard to this method he says, - "So long as the healing of a syphilitic affection progresses under the use of mercury, this treatment should be continued, and other remedies should only be employed when the favourable action of the drug ceases. The length of time required for the saturation of the system, and when that

The treatment of constitutional syphilis by means of mercurial hypodermic injections.

point is reached the interval which must be allowed to elapse before the inunction can be again returned to depends so much on the idiosyncrasy of the patient that no rule can be laid down before hand. In the majority of cases however, the mercurial treatment can be adopted again after an interval of one or two weeks.

It must not be employed during menstruation; although while using it other medicines such as Iron, Tumme, Iodide of Potassium, Cinchona, Cod Liver Oil and even Porter may be made use of, as it is best suited for obstinate cases which have resisted ordinary internal treatment and which sometimes require all the means we possess to be brought to bear upon them before any improvement takes place.

<u>The Hypodermic Injection of Mercury in the treatment of Constitutional Syphilis</u> Much benefit having already been derived from the use of the hypodermic syringe in the treatment of various diseases, it is not surprising to find that this method of treating Constitutional Syphilis has had its advocates. But, while this is so, it is not necessary to state that this practice has also been condemned. No doubt in this Country we have not had sufficient experience in its use and of its effects to warrant its general employment, but even in this Country but more especially in France and

Germany we have occasional reports of cases successfully treated in this way. At first the greatest drawback to its general employment consisted in the frequent production by a simple solution of perchloride of Mercury of boils, abscesses, or painful spots, not to speak of other effects such as salivation, diarrhoea, sleeplessness, and increase of temperature ascribed to this mode of employing the salt. Another objection was the effect which the perchloride had upon the needle of the syringe; it so acted upon the needle as to render it after a few times practically useless. A third difficulty arose from the physician requiring to give the injection himself. Also the value of this mode of treatment was doubted by some, and that even admitting that it was beneficial it was only suited for the superficial affections. And lastly its administration is attended with more or less pain.

Among the advantages of such a mode of treatment may be mentioned the greater intensity and rapidity of effect as well as economy of material and greater certainty of action. It however only requires to be used on alternate days, and from 20 to 30 injections are generally thought to be sufficient to effect a cure. It is best given in the forenoon or early part of the day and not at night unless it should cause pain or prevent sleep. (Lewin) Salivation rarely occurs, and, should there be any tendency thereto, it may be pre-

-Vented by using as a gargle and mouth-wash Chlorate of Potash as well as taking 10 or 15 grains of it internally two or three times a day. Boils and abscesses may be avoided by mixing other salts such as Common Salt with the mercurial, and in the same way if pain be experienced after the injection it may be prevented by combining with the injection a small quantity of the Hydrochlorate of morphia: The skin may also be frozen or a mixture of pounded ice and Common salt may be applied previous to using the injection, if the skin be sensitive. By using one of the solutions to be mentioned and paying particular attention to have the needle kept perfectly clean or better still using a special needle, and taking care to wash the needle & dry it thoroughly after each injection, these objections may be got over. Although the physician may require to give the injection himself, this in some cases may be an advantage where we wish to watch the effects of the mercurial or if we want to avoid suspicion on the part of the patients' wife for using medicine. In this way the patient may go about his ordinary business and may call in the evening to get his injection. This plan of treatment is chiefly useful in recent cases of syphilis, although it may also be used in affections of the osseous, muscular, and fibrous tissues. (Sigmund.) It is certainly a much more cleanly mode of employing mercurials than is the method of unctions. The stomach & gums are rarely affected by mercury administered in this way, and

it is rapidly excreted from the system. After each time the needle is used in addition to carefully washing it out with clean water, it is necessary to blow out all the water in it, then dry it thoroughly, and put a bristle through the eye of the needle. Some advise that oil should then be sucked into it; this however is hardly necessary if the above precautions be taken. The needle however which is used for this purpose should on no account be used for any other purpose, and great care should be taken not to prick any one with it in case of producing infection.

The use of the injections should be continued long enough and not stopped too suddenly although the local affection may be arrested while the disease remains uncured. The buttocks are considered the best place for making the injections, and it is useful to penetrate the gluteus maximus, but it is better not to make it where it may be pressed upon in sitting or in the neighbourhood of lymphatic glands. Pravaz syringe has been recommended. Care should be taken not to make the injection too bulky.

When rapid mercurial action is desired, it is readily obtained in this way. After three or four injections have been given it may then only be administered twice a week, especially when the case is not an urgent one. Should three or four days be allowed to elapse or if there should be any tendency to the gums being touched

It matters little so far as the constitutional effect is concerned what preparation of mercury is used, but locally the solution of the albuminate is the least irritating, although it must be confessed that even with it vesicles or boils are occasionally produced, and in others it gives rise to hard indurated knots. If the injection however be made deeply into the muscle there is always less local irritation. In our experience the therapeutical effects of the mineral are generally produced by from 12 to 15 injections.
We have no experience of the effects of subcutaneous injections of metallic mercury. Fürbringer reserves this plan of treatment for those cases not benefited by inunction or the internal administration of mercury or such cases as can only have a few injections.
In all cases the patient must be closely watched lest there should be any tendency to salivation, for we have known of this being produced by only 13 injections, these representing altogether gr 1 1/13 of perchloride of mercury. Now it is well known that a patient may take gr 1/12 or gr 1/16 of perchloride every night for a year or two without producing salivation, but it is also known that by-and-by such doses lose their effects and larger doses are required.
A few formulae may now be added:-
℞ Hydrarg. perchlor. gr 1/8 – gr 1/4 liquae mm. ℥v. This solution

has all the disadvantages mentioned above.

℞ Hydrarg. perchlor. Gram 1 Sodii Chlorid. Gram 2 Aq Destill. Gram 100.
This solution causes almost no pain, and the swelling it produces soon disappears.

℞ Hydrarg. perchlor. gr 6 Morph. Hydrochlor. gr 1/6 (vel Morph. acetat. gr 1/8 vel gr 1/10) Glycerini ℥ss. Aquae ad ℥i. ~~ttt~~ m.m. ℥v = gr 1/6
The discs of Savory and Moore may also be used or Wyeth's soluble compressed hypodermic tablets of Perchloride of Mercury.
Dr. M. Charteris has recommended a solution of the albuminate of mercury
℞ Hydrarg. perchlor. gr 2. Aquae ℥i
Dissolve in a test tube by the aid of heat and add min. ++ of a filtered solution of white of egg – one of egg and two of water, then add min. ++ of a solution of Chloride of Sodium.
Dose gr 1/12 = min. v. or min. iii twice daily.
M. Martineau's solution consists of a mixture of powdered peptone, Chloride of Ammonium and Perchloride of Mercury, dissolved in water and glycerine :– ℞ Powdered peptone (Catillon) 9 grams Chloride of Ammonium 9 grammes, Perchloride of Mercury 6 grammes dissolved in Glycerine 72 grammes, Water 24 grammes, and water 5 parts more. Dose 2 milligrammes (gr 1/25) to 10 mgs (gr 1/5) of Perchloride of Mercury. No abscesses nor sloughs follow; and there is neither stomatitis nor salivation even when gr 1/5 of mercuric salt is used daily. It is rapid and certain. (Lancet Oct 29.

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Tertiary Syphilis.

May be early or late of making its appearance.

The following also used by Dr. Charters causes pain, and is apt to be succeeded by an erythematous blush developing into a pustular sore. ℞ Hydrarg. perchlor. gr. 1 Glycerini, liquor. āā unc. I. Dose min. IV - VII twice daily.

In conclusion on this point I should say from personal experience that this method of treating syphilis is more suited for clinical demonstration in a ward of an hospital than for private practice, and even there we have known patients strongly objecting to its use and preferring to leave the hospital rather than submit.

Tertiary Syphilis.

Although as a rule tertiary symptoms do not make their appearance for many years after the primary sore and when the patient is apt to think that he is now safe or may even have forgotten all about it, - hence the frequent absence of history and the necessity for forming an independent opinion, yet, in some individuals, they show themselves at a comparatively early period after infection. This may depend either upon the virulence of the poison, the soil upon which it has been sown, the constitution of the patient as well as the state of health he has been in, or whether or no proper constitutional treatment has been regularly carried out. No doubt the quantity and quality of the poison absorbed by

Tertiary ulcers common, especially in women.

Cachexia.

Cicatrices.

different individuals vary very much. So also do the constitutions of the patients vary, so that the same poison in different individuals may have very different effects. A patient with a good constitution throws off the poison much more easily than one of a scrophulous constitution does, but at the same time there is no doubt but that treatment modifies the disease as much if not more than anything else, so that we frequently find tertiary symptoms much more severe in women than in men, simply because when a man contracts disease he at once seeks medical advice, and although he may infect his wife she is seldom so effectually treated if indeed she be treated at all.

In women tertiary phenomena most frequently occur in the form of ulcers, and these are generally situated upon the legs, and may be either ordinary syphilitic ulcers or ulcerating gummata. In men on the other hand the disease more frequently occurs in the form of nodes, necrosis, or gummata in the brain, liver, &c.

Previous to the onset of the tertiary symptoms there is no fever such as we find preceding the secondary symptoms; but, on the other hand there is generally more or less cachexia. Again, while secondary affections do not leave as a rule any permanent mark of their previous existence, it is quite otherwise with the tertiary affections. Even if a gumma should not ulcerate but become absorbed there is generally more or less retraction of the

Not inoculable in tertiary stage.

Tertiary ulcers.

skin, and when it does soften, ulcerations are produced and deep cicatrices are left

While secondary symptoms may coexist with the presence of the primary sore, secondary and tertiary affections rarely are found in any individual at the same time. In secondary syphilis the superficial glands are generally enlarged, while in tertiary syphilis the deeper or visceral glands are the ones mostly affected, hence the name visceral syphilis so commonly applied to some forms of disease in children. In the tertiary stage it is not considered to be inoculable nor possible to convey the disease to the fœtus by conception at least in the same degree as during the secondary affections. Tertiary forms of syphilis are not now so severe and serious as they used to be. This can only be accounted for by the more intelligent treatment carried out now than was formerly.

<u>Syphilitic ulcers</u> as has been said occur most frequently in women, although of course they do not confine themselves to that sex, and though they may occur almost anywhere, yet the lower extremities are their favourite situations. They are most frequently seen upon the lower legs one or both, but as a rule tertiary affections are not symmetrical. As the health is usually somewhat broken down, very slight causes may suffice to break the skin. At any rate the varicose triples are

The horse-shoe-shaped ulcer.

The serpiginous or creeping ulcer.

often blamed for producing them, – a knock, a scratch, a tight boot, &c. There are generally several ulcers to be found upon the one leg; they are more or less circular in shape, have a copper colour, and although generally small may attain to a considerable size if neglected. Syphilitic ulcers are usually found in situations different from the ordinary non-syphilitic ulcers. A not uncommon site is the side and back of the calf of the leg, the inside of the thigh, and the loin above the crest of the ilium. The horse-shoe-shaped ulcer is one of these and is not common, but is met with sufficiently often and is so characteristic of syphilis as to render it worthy of notice. It generally appears upon the inner border of the knee, being shaped as its name implies, with the concavity towards the patella. Some injury to the knee may be blamed as the cause of this ulcer. Generally it begins at two or three places and these unite and form one sore. Closely related to this is the serpiginous or creeping ulcer. It occurs mostly about the sole of the foot or the great toe. It has a worm-eaten appearance, and while it tends to heal at one end it extends in another direction, or it may heal up entirely and very soon it is as bad as ever. The edges when it is spreading are thick and unhealthy. These ulcers give rise to considerable stinging pain. After it has healed up a linear cicatrix remains which is pathognomonic

Tubercular, Gummata or Gummy tumours –

Tubercular, Gummata, or Gummy tumours frequently break down and ulcerate. They often occur about the calf of the leg, and may either appear as defined gummy tumours or as one large gummy mass. If a single tumour, it appears as a small boil which bursts, and when it has discharged its contents, a sore with a yellow sloughy unhealthy looking base and undermined edges is left. The appearance of such an ulcer is so characteristic that when one is familiar with this class of sores, it is not necessary to put any questions to the patient; all that is required is to put him or her at once upon constitutional treatment. Even if a patient should deny ever having had syphilis we can swear to syphilis as being their cause, even although the patient be a widow or unmarried. In the case of some patients the way in which the answer to our question is given is often of service, eg when instead of saying 'no' simply, it is said with the lips drawn together and with inspiration instead of with expiration, as a rule such a patient is telling an untruth.

If there be only one large gummy mass it is important not to mistake it for a tumour. In such cases several openings frequently occur and if a probe be introduced it will be found to run along a long sinus. Such a condition is apt to be mistaken for a badly contracted abscess. The cicatrices resulting from

Affections of the Periosteum.

these ulcers are circular, puckered, and as there are usually several are very characteristic, so that there is no difficulty in distinguishing them from strumous affections. Persons who suffer from gummata although quickly influenced by treatment are very prone to have fresh gummata forming and breaking down every now and again. We may have gummata in all their stages, two or more may have suppurated, others may be in the stage of softening; and others again may be in a quiescent state. In this last condition they are apt to be mistaken for enlarged glands. They always run a very chronic course.

The periosteum often suffers, especially that which covers the superficial bones, such as the tibia and frontal bone. The patient complains of severe pain of a rheumatic nature which is always worst at night. The same kind of pain occurs in the joints and is generally confined to one joint. The inflamed state of the periosteum gives rise to small swellings called nodes, which may be felt by passing the finger down the edge of the tibia. They are often exceedingly tender and may have a red and inflamed appearance, but suppuration rarely occurs although if it should take place the bone is apt to become necrosed. Eustace Smith believes that the insomnia of infants is due to the presence of nodes in the long bones. No doubt such swellings do occasionally occur in children, but they are not very common in persons below 20 years of age

Erythema Nodosum.

Rupia.

care is necessary not to confound this variety of periostitis with Erythema Nodosum, which latter generally occurs in young persons of the Rheumatic diathesis, and which generally passes away in a few days often without any special treatment. It is not worse at night, nor is it so painful as is the former, & suppuration never occurs.

Rupia can hardly be mistaken. It begins as a hard papule of a coppery colour which soon softens into a pustule with a dark areola. This soon becomes limpet-shaped, large or small, with a dark or greenish scab. It occurs in persons whose systems are low and in whom there is marked cachexia. It is a very chronic eruption. Several small pustules occasionally unite and form one large oyster-shaped pustule. Syphilitic Rupia (Escharotica) differs from simple Rupia in leaving as its name implies a large ulcer when the scab comes off. So long as the system keeps low and the disease is not treated a new scab forms as soon as the old one drops off, but when the patient is going to get well the scab comes off leaving sound skin underneath. Although not confined to any one situation, the back and the scalp are its favourite seats, but it may attack the face, thighs and arms.

Rupia parva affects the scalp, and it is interesting to notice the scab being thrown off by the growth of new hair. When an ulcer is left by the scab falling off it is chronic, deep, with punched-

Ecthyma.

Impetigo.

out edges, and having a dirty-looking slough. It is difficult to heal, and leaves a permanent cicatrix of some depth and of a white colour.

Ecthyma is one of the worst of syphilitic eruptions. It appears in the form of large prominent flat pustules more or less depressed in the centre. These pustules are generally scattered here and there over the body and rarely come together. The scab is greenish-black, and when it separates which it may be made to do by means of a poultice, a large punched-out ulcer remains, with a dirty-looking slough by mass at its bottom. The eruption is very chronic and leaves an indelible cicatrix. The head and whiskers are its usual sites, in fact ecthyma of the scalp is generally syphilitic, although it frequently occurs upon the extremities at the same time. It is always a serious and troublesome symptom. From Impetigo it may be distinguished by the pustules in the latter being much smaller, usually occurring in groups and apt to become confluent. Rupia, Ecthyma, and Impetigo only occur in low states of the constitution.

Impetigo occurs chiefly about the neck, face, and scalp. It is also a pustular eruption, and consists of uneven and cracked but not prominent crusts, which overlap an ulcerated surface. When the case is improving, the crusts dry up and fall off leaving a surface at first red, afterwards coppery, and finally a depressed whitish cicatrix. In Scrophulous impetigo the crusts are black or white, not green, the edges are differ-

Caries and Necrosis -

Syphilitic disease of the Testicle.

ent, and the cicatrix which is elevated has a red or pink colour.

Caries and Necrosis are frequently due to old-standing syphilis, and not as many suppose to the mercury administered, although when badly used it may tend to impair the nutrition of the bone. The bones of the skull, the frontal, nasal, occipital, and palate bones, and other superficial bones like the tibia are frequently diseased. Both in adults and children we frequently find depressions of the nasal bones from softening. Syphilitic disease of bone is not now so common as it used to be, and this may be accounted for by the patients now-a-days being put early as a rule upon proper treatment, & the excessive use of mercury formerly in vogue is now rare. When it does occur it is always late in the history of the case. Still, we believe that in Kashmir, where the people are more or less syphilised, necrosis of the jaw-bones is common, and there they receive little treatment.

Syphilitic disease of the testicle is rather a late manifestation of syphilis. Usually only one testicle is affected, or if both become diseased, ~~or if~~ the disease does not begin in both at the same time. It occurs for the most part in weakly subjects. In making a diagnosis the glands in the groin should be examined and cicatrices should be looked for. The testicle

Syphilitic disease of the Larynx.

Tertiary ulcerations of Tonsils, &c.

enlarges slowly and becomes firm, hard but elastic and heavy and might readily be mistaken for fibrous disease of the organ. It has also to be distinguished from the Tubercular, Cystic, and Malignant forms of disease, as well as the Gonorrhoeal variety, which last may be combined with the Syphilitic, and which is sometimes considered to be the exciting cause of the syphilitic. It may be complicated with a chronic effusion of a hydrocelic nature. Both the Syphilitic and Gonorrhoeal forms are very chronic.

If it appear in the form of a gumma it is apt to soften & ulcerate, although it never becomes fungoid, but the opening in the scrotum does not close till the whole testicle comes away. In acute idiopathic or traumatic orchitis we have severe pain & swelling of the testicle accompanied by redness of the scrotum. There is a peculiarity about Syphilitic orchitis that there is never any exacerbation of the pain at night as is common in other syphilitic affections —

We have nothing new to note with regard to syphilitic disease of the Larynx than what may be found much more correctly stated in text-books on the subject.

<u>Tertiary ulceration of the tonsils</u>, velum palati and pharynx differs from the secondary form of ulceration in being usually only unilateral, in being deep, circular, and ragged, and in being very prone

Palatine serpiginous ulceration.

Disease of vertebrae.

Syphilitic ovaritis.

to relapse after being cured, and as a rule attended with more or less cachexia and emaciation. Ulceration of the palatine arch frequently occurs in a serpiginous form; at other times it is the result of the breaking down of a syphilitic gumma. In these cases the periosteum sometimes suffers and necrosis of one or other of the palate bones may ensue, thus giving rise to a communication between the mouth and the nasal cavity. In the same way gummata of the pharynx frequently give rise to periosteal disease of the vertebrae leading to caries of one or more of their bodies. Examples of these forms of disease we have seen in the hospitals. They are all very chronic.

<u>Syphilitic Ovaritis</u> cannot be said to be a rare affection, although in the absence of an examination of the diseased ovary more or less doubt must always attend the diagnosis. It may be considered as analagous to orchitis in the male. As a rule only one ovary is affected at a time, so that sterility need not occur. The patient suffers from a constant more or less dull pain, which she may think has been produced by a strain or other injury. The history is our only means of arriving at a conclusion as to the real nature of the affection, if we may have other evidences of syphilis such as frequent abortions, warts around the os uteri or ulcerations of the same. The effect of treatment is often of much service in enabling us to verify our diagnosis

Treatment of Tertiary Syphilis.

Ulcers.

Iodide of Potassium.

Potassio-tartrate of iron.

Iodide of Iron.

Iodide of Starch.

Cinchona.

The Treatment of most of the tertiary syphilitic affections is both local and constitutional. Ordinary syphilitic ulcers do not as a rule require much attention provided proper constitutional treatment be adopted. Few of these will bear Mercury well at any rate in the first instance; it is generally necessary to begin by giving about 5 grains of Iodide of Potassium three times a day. This may be given either in simple solution or combined with a bitter infusion. Where there is much Anaemia or Cachexia it is well to combine with the Iodide a little quantity of Potassio-Tartrate of Iron. After a few days the dose of both of these may be increased as the special circumstances of the case seem to demand, but it is seldom necessary to go beyond 15 grain doses of either. If this do not appear to act beneficially the compound decoction of Sarsaparilla may be added to the above. Iodide of Iron in solution is sometimes used, but as its taste is more objectionable than the ordinary solution of Iodide of Potassium and Potassio-tartrate of Iron, the latter is generally preferred. In some cases for a change the Iodide of Starch is used with benefit — in teaspoonful or dessertspoonful doses two or three times a day after food. Cinchona is also sometimes combined with the Iodide of Potassium with advantage. Under one or other of the above combinations, marked improvement generally takes place both in regard to the patients health &

Perchloride of Mercury.

Cod liver Oil.

Porter.

Quinine. Nitric Acid, &c.

Poultices.

the particular affection from which he suffers. Some appear to be entirely cured in this way although there may be a greater or less tendency to relapse in others, while with others again we cannot get security or even cure without the administration of mercury in one form or another. Small doses of the perchloride (gr. 1/16 - 1/12) or even much less in some (gr. 1/64 - 1/32) may be given at bedtime, while the Iodide is given during the day, or others whose constitution is not so much broken down will bear it in combination with Iodide of Potassium and Potassio-tartrate of iron. In strumous subjects Cod Liver Oil in ℥ss or ℥i doses at bedtime only in the first instance, and increasing it gradually as the stomach will bear it to two or three times a day after meals is even more useful than mercury. Others who cannot take or digest the oil may be benefited by Porter once or twice a day especially if there be suppuration or a tendency to scabbing. At intervals it is desirable to stop active treatment giving instead Tonics such as Quinine, Nitric Acid, &c. In this way the constitutional treatment has more effect, for if it be continued too long at a time without stopping it occasionally it loses its effects, and the dose requires to be considerably increased if it is to take any effect at all upon the disorder.

If Scabs require to be removed poultices should be applied, unless they be perfectly dry, when they may be allowed to drop off, in which

Slippery Elm poultices.

Jaconette.

Iron dressing.

White precipitate ointment.
Sulphate of Copper – Nitrate of Silver.
Black wash. Blisters seldom required
Strapping rarely used.
Liniment of Iodine – frequently very useful.
Serpiginous ulcers.

case they may be protected by being covered with Cotton wool till it is time for them to fall of spontaneously. If a small surface only require poulticing the scab may be covered over with lard and a bread and water poultice applied over all. Linseed meal may also be used either mixed with olive oil or the meal made simply of the crushed seeds containing the oil, in which case however it requires to be boiled. If the surface be a very large one, a very comfortable poultice is made by boiling powdered slippery elm bark and applying it bare to the affected surface. This does not readily become sour as does linseed meal. All these poultices ought to be covered over with Jaconette so as to retain both the heat and moisture. When the scab has been removed and the sore cleaned it may be dressed with simple water dressing and gutta-percha tissue. Unhealthy ulcers may be dressed with a solution of Potassio-tartrate of iron (ʒ30 to 1℥) or an ointment of white precipitate. Some require to be touched occasionally with Sulphate of Copper and others with Nitrate of Silver. A few sores do well with Black Wash; seldom are blisters and strapping required unless as aids to treatment, but many are much benefited by being touched occasionally with Liniment of Iodine. Serpiginous ulcers are often troublesome requiring to be frequently stimulated with Iodine Liniment, and at the same time that Iodide of Potassium is administered during the day, a pill containing ʒ ss/4

Green iodide of mercury.

Suppurating gummata.

Iodoform.

gr ½ or gr 1. of green iodide of mercury with Extract of Hyoscyamus or powder of Opium should be given every night. This is one of the cases which is not always curable with perchloride of mercury and in such the green iodide is almost certain in its effects.

<u>Suppurating Gummata</u> are often exceedingly difficult to manage. When they ulcerate leaving a sloughy base Iodoform seems to have a marked effect upon them, and may be used in several ways: "℞ Iodoform. Spt. Vini Rect. aa 1 part. Glycerini 5 parts. (2) ℞ Iodoform 1 part. Ether. Sacch. Alb. 3 vel 4 parts. (3) ℞ Iodoform 1 part, Vaseline, 5 parts. (4) Iodoform 1 part. Collodion 10 or 15 parts. (5) Iodoform gr 15 Bals. Peru ℥ss Vaseline ℥ss. (6) ℞ Iodoform 1 part. Ether. Sulph 6 or 8 parts; to be brushed over the sore with a camel-hair pencil. Under this treatment, especially the combination of Iodoform with Balsam of Peru, the surfaces of the sores soon clean and commence to granulate. The Balsam of Peru helps to cover the disagreeable smell of the Iodoform, which is one of the chief objections to its use, for the smell is so strong that it is easy to detect it on entering a room or coming in contact with a patient using it. Dry Iodoform in powder forms a uniformly adherent paste which is useful in the treatment of these sores. We have no experience of,

Lancet. 1879. page 83.

Inunction of Oleate of mercury pomade.

Iodide of potassium
+ perchloride of mercury.

Opening up of sinuses leading to Gummata.

its use internally, but in the form of pill (gr ½) with Extract of Taraxacum it has been used with advantage in Syphilitic ulceration of the tongue, in which the dorsum was covered with a thickened epithelium, which split into deep fissures which gave rise to severe pain.

Some gummata, eg. at the elbow-joint are very tedious of healing and may be exterpated.

In all cases perfect cleanliness should be observed, and any undermined skin should be carefully removed or pared — lint times carbolized oiled lint, black wash, Calomel ointment, a saturated solution of Potassio-tartrate of iron are beneficial.

When gummata exist in a quiescent state, they may be benefited by injection of a pomade of oleate of mercury and vaseline. When situated in the subcutaneous tissues they are generally amenable to medicinal treatment, although the same cannot be said when they exist in the brain and spinal cord, but yet both here and also in the liver they are occasionally absorbed leaving cicatrices, and this result is most generally produced by means of large doses of iodide of Potassium followed after a time by perchloride of mercury.

Where a large gummy mass has ulcerated and several sinuses exist, the cure may be expedited by opening

Syphilitic Nodes.

these up and scraping out the gummy material by means of a Volkmann's spoon. Thereafter it may be dressed with carbolized oiled lint and afterwards if necessary with Iodoform or Potasso-tartrate of iron.

<u>Syphilitic nodes</u> are best treated with large doses of iodide of Potassium taken three or four times a day. If the pain at night be very excessive 10 or 15 grains of Dovers powder may be given at bedtime. If acutely inflamed leeches ought to be applied, the limb elevated, and perfect rest enjoined. The effect of iodide of Potassium is often magical both in relieving pain and causing inflammatory action to subside. To prevent relapse however it is necessary to have recourse to small doses of mercury afterwards. When the affection is more chronic and little pain is complained of, a fly blister may be applied, after which the tincture or a combination of the tincture with the liniment of iodine may be applied once or twice a day for some time. It is seldom necessary to open these swellings. in fact it may be taken as a general rule that those about the cranium ought never to be opened no matter how fluctuant they may be. Where however there appears to be much tension, this is often relieved by incision, but in more chronic cases it may be necessary to divide both the

Raised cicatrices.

Cheloid Growths.

Pains in the bones.

Loose portions of bone.

Artificial palate.

Syphilitic Orchitis.

Syphilitic Ovaritis.

periosteum and also the hard outer ivory portion of bone by means of the chisel and mallet.

Raised cicatrices are often painful and may be benefited by painting with liniment of iodine. We have observed that syphilitic cicatrices are not unfrequently the seat of chloroid growths. In a late case of tertiary syphilis in a man advanced in life the cicatrices were principally about the shoulder and angle of the scapula and were fully a dozen in number. Chloroid growths of a non-specific kind are most frequently seen about the sternum.

Pains in the Bones in general may be relieved by warm salt water baths.

Loose portions of bone should be removed with great care. When the hard palate is perforated it is necessary to fix an artificial palate to the teeth so as to allow of proper suction power and at the same time with the view of preventing the escape of foods into the nasal passages.

Syphilitic Orchitis is curable if early treatment be adopted but relapses are of frequent occurrence.

Syphilitic Ovaritis may be treated constitutionally by iodide of potassium and afterwards by perchloride of mercury, altho' we shall sometimes find it necessary to have recourse to the green iodide which seems to come in well when the former

Ulcerations of the Tonsils.

page 230.

Syphilitic affections of the Larynx.

fails to act. Among local applications fly blisters are perhaps as good as any. Iodide of lead ointment & oleate of mercury ointment may sometimes be beneficial.

<u>Ulcerations of the Tonsils</u> besides requiring constitutional treatment are also benefited by being touched once or twice a week with solid nitrate of silver or liniment of iodine, at the same time that they are kept clean with chlorate of potash or chlorinated gargles. Iodoform may also be used:- ℞ Iodiform Glycerine aa ʒi Spt Vini Rect Aquæ aa ℥iii M. Others again will bear more active measures such as touching with strong nitric acid or the acid nitrate of mercury, the action of either being stopped by syringing with cold water. Others again are benefited by being touched with the actual or thermo cautery. When using the latter it is well to make use of the thermo-antidote described under the thermo cautery, so as to avoid burning the tongue. ℞. Sometimes weak Nitric Acid gargles assist other local treatment.

In dealing with <u>Syphilitic affections of the Larynx</u>, we often find little benefit accrue from either local or constitutional remedies, for as the lesion cicatrizes contraction occurs and so, the impediment to free respiration increases. The liniment of iodine or fly blisters may be applied repeatedly externally, while at the same time the parts are touched internally with

Gummata of the Brain.

a solution of Nitrate of Silver (gr 20 to ℥ i). Inhalations of a spray of Iodide and Bromide of Potassium are sometimes beneficial, the latter acting as a sedative helping to relieve the dyspnœa, or a mixture of iodine in glycerine (1 in 5) may be used either as a spray or applied by means of a probang. These however may do no good and we have even known the case to be aggravated by treatment. If so we must decide as to the advisability of performing tracheotomy. The age of the patient must be taken into account; the lungs must be carefully examined so as to find out if there be any evidence of the disease in the bronchial tubes or congestion of the lungs themselves. If the patient be advanced in years — over 50, and congestion or other bronchial affection exist we would rather warn than urge upon the performance of the operation.

With regard to gummata of the brain it is worth while remembering that they may produce paralysis &c as suddenly as haemorrhage does in non-syphilitic patients. If there be no evidence of cardiac disease, then in a given case, the likelihood of embolism being the cause of the paralysis may be excluded. If there be no kidney disease (cirrhosis), and no atheroma of the superficial vessels, haemorrhage may also be excluded. By a process of exclusion we may be led to think of Syphilis being the cause of the affection even although

Bell's paralysis.

it may have come on suddenly.
In all cases where a doubt exists as to the correctness of the diagnosis, it is proper to treat the case and give no opinion as to the nature or cause of the affection.
Paralysis of the seventh nerve, resembling Bell's paralysis, of syphilitic origin is occasionally met with after large or bad doses of the disease, and more especially if the patients employment be-fore him to be much exposed to the variations of the weather We may be unable to discover any evidence of syphilis in the system to warrant our stamping the affection as a syphilitic one although some patients are able to give a clear account of having had a chancre, sore throat, and eruption, and in the absence of this he can generally tell us of having suffered severe headache prior to the onset of the present complaint. If he has no history of syphilis to give, he can very seldom give any satis-factory account of what its most probable cause may be. The pain is usually very severe and prevents him obtaining almost any sleep. As a rule this affection is developed more or less gradually, although it may appear suddenly and even become gradually worse afterwards. It is generally only unilateral and is believed to be due to an affect-ion of the fibrous covering (neurilemma) of the nerve, although some believe the nerve itself to be affected.
The eye cannot be closed completely (orbicularis palpebrarum)

III.

Syphilis in Connection with Marriage and Pregnancy.

the mouth has a twisted appearance, and the patient has difficulty in whistling, and, if he close his mouth and blow out whilst still keeping it closed, the paralysed side is seen to be quite flaccid. The appearance presented by the patient if he be made to laugh is very characteristic.

As a rule this is rather an obstinate affection, but usually yields to appropriate treatment, although if it be too late of being adopted, the paralysis may continue. If the patient's system be otherwise at fault, if he be weakly, it may be necessary to put him first upon 10 grain doses of potassio-tartrate of iron three times a day with Cod Liver Oil for a month; then, when a good foundation has been made, he should be given small doses of green iodide of mercury and opium followed by Iodide of potassium at first in small and afterwards in large doses.

Syphilis in Connection with Marriage and Pregnancy.

In all cases where our advice is sought as to the propriety of a man who has had Syphilis marrying, we must be very careful in giving our sanction; for if he should marry by our advice, and if any bad results should ensue, he will be sure to screen himself by blaming his physician. No rule can be laid down for our guidance which will be applicable in all cases but each case must be carefully studied, and we must be guided

in our decision by the actual condition of the patient. No pleadings on the part of the patient or other personal considerations must be allowed to influence us in the very least. Frequently we shall find that our patient will marry even in spite of our recommendations, but in such circumstances he alone can be responsible for the results. We are apt to forget how much we hold ourselves responsible for when we give our consent to marriage. Not only may a wife be rendered diseased and miserable, but also she may give birth to diseased and even disfigured children, or she may have miscarriage after miscarriage, and never be able to give birth to a living, or if living, to a healthy child. Again, this child may be the means of conveying the disease to her wet nurse, who in her turn may transmit it to her husband and child or even children.

In every case which we are asked to consider, we must make certain that there is no trace of eruption or any other symptom of syphilis, for, although as a rule the former are not infectious - at least the dry ones, yet their presence is an indication that the poison is still in the system. Still more, if there be any one of the secondary infectious affections such as condylomata - the discharge from which is infectious, - fissures at the angles of the mouth

mucous patches ulcerations of the tongue or throat, must we consider the presence of one of these sufficient, to deter a man from marrying. These affections are often very trivial at least they appear so, but nevertheless they are some of the affections which are the means of conveying the disease most frequently when it is not contracted in the usual way. Discharges from a syphilitic female are generally infectious, and when any of these is inoculated upon a virgin subject it appears as a hard chancre. These apparently trivial affections often pass unobserved. What appears to be only an abrasion or pimple is what we have most to fear. The later affections are not so infectious and are less likely to pass unnoticed. Again, a certain period should elapse since the appearance of the last symptoms, for, altho' we cannot predicate absolute safety to a patient who has had syphilis yet we should endeavour to diminish the risk as much as possible, and this leads to the remark that it is a common thing to see patients suffering from slight sore throat and loss of hair or rheumatic pains, all of a syphilitic nature and yet no special glandular affection or in fact anything typical of syphilis and yet suspicious of it.

Now although we cannot persuade our patients of the necessity of remaining single for a sufficient length of

time after infection, yet we should not advise marriage for 3 or 4 years after infection and with appropriate treatment off and on throughout, and 18 months or two years from the last symptom of disease has appeared without treatment, for we frequently find syphilis remain in abeyance by treatment, and immediately break out on abandoning it. No doubt the severity of the case must be taken into account, and not only that but the tendency there is in special individuals to little relapses, especially of mucous patches about the lips of those who smoke much; also the constitution of the individual makes a great difference in the severity of the same syphilitic poison in different individuals. Even although the dose of syphilis be slight yet if it be not treated or only for a short time, it may ultimately assume serious dimensions or if not it may leave a taint for a long and almost inconceivable time. If, however, it be well treated from the beginning, it has no third stage as a rule, and the chances of hereditary transmission are considerably lessened. We frequently have miscarriage after miscarriage in those that are not treated, but, if in the next pregnancy the mother be treated off and on throughout, we are often enabled to bring the case to a successful issue. Again, if treatment be neglected in the second-

ing pregnancy, the result may be the same as in the earlier pregnancies. On the other hand, if the wife be free from syphilis, she may give birth at first to diseased or even apparently healthy children which gradually contaminate her system, & by-and-by abortion takes place with each pregnancy. Again, if after giving birth to three or four healthy children, the succeeding ones are diseased, this is generally due to the husband contracting disease in the interim. In succeeding pregnancies however unless the husband be put upon treatment, he may beget syphilitic children. Diday remarks that in such a case the treatment has had the effect for the time of maintaining the seminal fluid in good condition, and that it had afterwards resumed its venereal character in proportion as the effects of the treatment became lessened by time.

The only actual hindrance to marriage at any time is the appearance of cerebral or spinal symptoms, for these are prone to relapse, and although they may not kill in the first instance, yet they may utterly unfit a man for supporting a wife.

Many authorities believe that because semen is not inoculable that it is therefore not capable of transmitting syphilis to the wife. We constantly find that when the semen is tainted with syphilis, the child is diseased, but, when previous

to conception the husband has been put upon treatment, we may reasonably expect that the child may escape even although there be other symptoms of syphilis in the husband provided that the wife be free from disease or be properly treated. It is now believed that a woman may remain free from disease so long as she does not become pregnant, but that so soon as pregnancy occurs her system becomes contaminated; and here the peculiarity is that we have no chancre or primary adenopathy such as we usually have when a person becomes infected in the ordinary way, but the secondary affections are the first hint we have of the infection of the general system. This is exactly what happens in the case of congenital syphilis, but here the thing is simply reversed — the mother gets the disease from her fœtus through the medium of the placental circulation. Thus we see frequently — persons suffering from general syphilis, with no trace of glandular enlargement. This is called syphilis by conception. (Fournier). Here of course the child must be syphilitic. There are a few cases where a syphilitic child is born of a mother who appears to be perfectly healthy. In all probability such an one has already had the disease, hence her apparent immunity.

Unless the disease be for the time in abeyance or have

been previously cured, it is difficult for us to conceive of a man not being hurtful to his child. No doubt we have known of syphilitic men having had healthy children, during the full bloom of syphilis, and the explanation is that there have not been at the time of conception any infective materials about his genital organs, although he may have had such upon his lips.

Again, a man may at one time be incapable of communicating disease although the subject of syphilis, and yet, when a relapse takes place, he conveys it to his wife, if she have not previously had it, or to his child. If she have already had disease, the first child may be born diseased, the second healthy to all appearance, and the third diseased, according to the state of system of one or other parent. It is generally admitted however that the disease in the mother is much more hurtful than the same amount of disease in the father. So long however as the semen is tainted with the poison of syphilis, there is very little hope of a healthy child being produced, but it is worthy of note that it does not prevent conception unless there be syphilitic disease of the testicle, and even although one testicle be diseased the other is generally unaffected or at any rate quite capable of producing semen, and the same thing

may be said to hold good with regard to ovarian disease. This fact is interesting when we compare it with the effects gonorrhœa and its sequelæ have in producing sterility in both sexes. In syphilitic subjects on the other hand sterility is rare. As a rule most people so affected will tell us that they have had several miscarriages, so that although there appears to be more than usual fertility, the ultimate result is unsatisfactory.

The embryo then may be syphilitic from the first. In that case, abortion usually takes place about the third month. There is no more common cause of abortion than syphilis. Even although we may have no evidence of syphilis in either parent we can predicate it from the fact of there being two or three abortions not otherwise satisfactorily accounted for, in series, although there may have been healthy children born before as well as after them. Still there are a few women who appear to have got into a habit of aborting or who do so simply from debility. We must not forget however that although we are unable to discover any evidence of syphilis, yet she may be the subject of old standing syphilis, which is always much more unmanageable than is the recently contracted disease. We know of a case where there is no other symptom of syphilis than warts around the os uteri and frequent abor-

tions with fatty placentæ.
If syphilis be contracted after the 7th month, the fœtus has a fair chance of escape although it is apt to be poisoned afterwards either during birth or lactation.
Most females, who are ignorant of the cause of these abortions, blame some trifling cause such as a slight fall, a fright or other accident. But, if we enquire, we shall generally find that there has been no sufficient cause to produce abortion after all, and that it has taken place spontaneously. Even if we have a living child it is generally stunted and delicate. In nearly all of these cases the placenta will be found to be more or less fatty and smaller than usual; and, in extreme cases it may be one entire mass of fat. The membranes also have an unhealthy appearance, and, unless they come away easily, both these and the placenta are apt to give way when any effort is made to remove them.
The fœtus may be retained till the fifth month, and, if no accident occur, it may not come away till the 7th month. The 3rd, 5th & 7th months are common periods for abortions to take place. Frequently again it is retained till the full period and discharged dead or diseased, and possibly dying soon after.
The fœtus originally healthy may become poisoned during utero-gesta

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Treatment

tion; this is common in young girls who have become pregnant and have afterwards become diseased, through having resorted to prostitution as a means of livelihood, or in married persons, where the husband has contracted disease after his wife has conceived. We never see a chancre on a child contracted from its mother, although it may have a chancre upon its lip if it be given out to a syphilitic wet-nurse. On the other hand, we have seen a nurse contract disease through sucking the nipples of a syphilitic mother. Even though a mother present no symptoms of disease, we never see her contracting a chancre upon her nipple or lip from her child, though a wet-nurse may be thus affected. This goes so far to prove that in such cases the mother has already had disease. One exception to this which may be said to prove the rule occurred in the case already mentioned where the mother presented a hard chancre upon her nipple contracted from her own child who had received the poison by means of vaccination. An article on vaccinal syphilis is intended to follow.

Treatment:— Before conception takes place put both husband and wife upon constitutional treatment; and after conception let the wife continue to take small doses of some mercurial such as grey powder, perchloride of mercury, or biniodide of mercury. We do not much care for the green

Post partum haemorrhage.

iodide as it is both apt to gripe even when combined with Extract of Hyoscyamus or powder of opium, and to cause diarrhœa. Inunction of mercurial ointment is also of service where owing to gastric disturbance we are unable to give mercury by the mouth. In addition, she should regularly take 10 or 15 grains doses of chlorate of potash with the view of preventing as much as possible fatty degeneration of the placenta.

Syphilitic patients are very liable both after abortion and confinement at term to post partum hæmorrhage. In many cases this is due to a diseased condition of the uterine sinuses.

After abortion these patients usually improve much in health, and this is due to the fact that pregnancy generally produces an awakening of the disease.

As the Syphilitic poison has a tendency to wear itself out, we often find that in successive pregnancies, gestation goes on for a longer time, and we may thus come to have first a child born at term, but still, although there may be no eruption; and then we may have a child born next time alive, though feeble and diseased; and then another may be born alive and apparently well, although in the course of a few days or at most within six weeks, symptoms are usually developed.

The cases which are most difficult to treat are those of strumous diathesis, for struma and syphilis are a bad combination.
If we have a patient who has had several miscarriages, we are warranted in treating her specifically if these cannot be accounted for in any other satisfactory manner.
One of our greatest difficulties in treating a syphilitic wife lies in our not being able to get her or perhaps rather her friends persuaded of the necessity for a prolonged course of treatment. As a rule she very soon gets tired of taking our medicines. As a result of this, women are much less satisfactorily treated than men, and this fact accounts for tertiary affections being most frequently seen in women, and for unsatisfactory results in our endeavours to prevent abortion. We should on no account allow our patient to know the cause and nature of her illness, though we shall find many ladies more alive to the true nature of their complaint than we are aware of. We should tell our patient that she is getting iron or medicine to improve or 'purify' the blood
In our diagnosis we must in no case be led astray by the respectability of our patient — we must never on that account dismiss syphilis from our minds. Among the

better classes of patients we would expect a more satisfactory result on account of having both the remedies and the medical attendance more at their command. Such however we do not find to be the case in practice, especially as already stated from the difficulty we have in getting them to take the medicines.

In the treatment of these cases absolute rest in bed and otherwise must be insisted upon when we have reason to fear from past experience any mishap, specially at the 3rd, 5th and 7th months.

Let the patient be treated off and on during pregnancy. Many say that mercurial treatment is the cause of abortion, but this we know to be a mistake, for we are constantly seeing abortions taking place where the patient has had no medicine whatever. We are satisfied that it is of very little use simply to treat before conception under the idea that such treatment will prevent abortion; and we are sure that, if the proper mode of treatment be selected, no bad results will ensue from medicines. Further, it is well to treat patients, who have had syphilis, when they become pregnant, whether they have formerly been treated or not.

As after a time the effects of Mercury and Iodide of Potassium are lost it is necessary to stop treatment occasionally, say

IV.

Congenital or Hereditary Syphilis.

Acquired Infantile Syphilis.

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+ page 137.

every six weeks, for two or three weeks, and then return to it, or the doses of both require to be increased, or a different preparation selected. Sometimes mercury and iodide of potassium can be used alternately instead of in combination.

Congenital or Hereditary Syphilis

The terms Congenital or Hereditary Syphilis are used in contradistinction to that of Acquired Infantile Syphilis, because although the former is a common disease in infants and children as the result of the hereditary transmission of the syphilitic poison, yet we occasionally have cases of infants contracting disease after birth, and which are therefore distinguished from the former by the term 'Acquired' infantile syphilis; and while the former commences as a general disease, the latter has at first an entirely local origin. This is well seen in cases where the child contracts disease by vaccination as will be seen in a subsequent paper, or from the child sucking the breast of a syphilized nurse as has been already alluded to under the heading of the hard chancre.

As has been previously noticed*, the embryo may be expelled from the uterus at any stage of utero-gestation, and, although at an early period there may be nothing specially remarkable about its appearance, yet we generally find that it has a poor

Snubbling.

withered, underdeloped appearance. At birth we have the disease in all its stages. The foetus may have become so deeply infected with the syphilitic poison as to die shortly before birth, and we often have such retained for days or weeks and discharged with the epidermis peeling off. Here the death of the foetus is the cause of the abortion. Others again are born alive, and pemphigus appears upon the palms and soles soon thereafter, but these children generally die. Others again appear weakly, and soon begin to snuffle, and die of debility, or suddenly without apparent cause, while others again look plump and healthy when born, but after a few weeks pine away. In these last the only warning we may have is that the child does not sleep well at night. In the course however of from three to six weeks, symptoms usually develop - most commonly an eruption appears upon the nates or the child begins to snuffle. As regards the snuffling, we often have a little of this for the first few days in otherwise healthy children; but when it persists for a longer period, our suspicions ought to be aroused. In mild cases it may not be noticed except when the child is drinking, i.e. so long as the mouth is open, it causes no trouble. In the case of twins being born, we occasionally see one healthy or rather apparently so and the other diseased. If a mother have been

Running of the eyes and nose.

Infantile stomatitis.

See page 64.

in poor health during her pregnancy the child has generally a withered look, but if she have been in fair health, it may look well enough at first.
Running of the eyes but more commonly of the nose is usually of early occurrence. At first it resembles what we find taking place when one has caught a cold, hence the mother may say - 'he has had a cold ever since he was born'. This symptom is rarely absent even in slight cases, but some children with undoubted syphilis never have it, indicating an absence of nasal affection. When it exists there is generally more or less ulceration within the passages and they may be blocked up either by the discharge drying up or the Schneiderian membrane becoming swollen. When on account of this ozena, the nose becomes much stuffed up, it is usually a great barrier to success in the management of the case, in fact it sometimes renders an otherwise hopeful case to be utterly hopeless, for it prevents the child sucking the breast or drinking from a feeding bottle, and it will not avail much if mercury cure the disease, if by that time the strength has failed. Syphilitic stomatitis frequently accompanies this condition quite apart from the use of mercury. This also is a great barrier to success, for the mouth is often so much inflamed that the infant is quite unable to suck. This is most frequently

Depression of the nasal bones.

Hoarseness.

Diagnosis of infantile syphilis.

seen in debilitated children, and Hutchinson says that it is the most common cause of 'syphilitic teeth.'
In many cases there is a marked depression of the nasal bones giving rise to an appearance of pouting of the tip of the nose. This is due to more or less softening of the nasal bones accompanied by a certain amount of swelling of the Schneiderian membrane. Unless this be marked in degree, of itself it is not sufficient to make a diagnosis. We may see it often in two or three members of a family who are otherwise apparently well, although one or more of the same family may be suffering from undoubted syphilis. It is most marked in babies.
Many syphilitic children suffer much from hoarseness, which may even go the length of complete aphonia, especially when the strength has become much reduced.
We must never allow the appearance or social position of the patient to interfere with our opinion as to a certain case being syphilitic, for we find this disease cropping up in the children of all ranks and of those whom we never had any reason to suspect, and even for whom we may formerly have had much respect. Generally there is no history. When we find the disease appear within six weeks, the case usually turns out to be a pretty severe one, and the longer symptoms are of appearing the less severe is the case likely to be. Some children

Late infantile syphilis.

although in perfect health to all appearance when born, in six weeks or less begin to lose flesh, and we are told the child 'scalds' very easily. Whenever a child does not thrive or ceases to do so, suspect syphilis in the absence of any other assignable cause. Some children however even appear to thrive before and during the appearance of the eruption. This of course can only occur in mild cases. Others again emaciate so far that we have seen a syphilitic child of six months smaller than when it was born. In such a case the prognosis is unfavourable. There are a few cases where the symptoms may be so very mild in infancy as to pass unobserved and accordingly untreated, and nothing more is known of the case till the child is several years old. One case came under our care of a child five years of age, and, on account of its nature at first not being understood, it was allowed almost to die for want of specific treatment, which however was fortunately adopted in time to save the life of the child and with almost magical results. The effect of specific treatment is generally held as confirming the diagnosis. Mr. Hutchinson explains syphilitic symptoms occurring late by supposing that in infantile life most of the tissues are affected by the syphilitic poison, that a lull then takes place, and, after a longer or shorter interval, another

See Page 172.

outbreak of the manifestations occurs, frequently in the same tissues and regions as those mainly attacked in infancy. Unless the system be much impregnated with the syphilitic poison the disease may remain latent and may be brought to develop itself by anything which lowers for the time the vital powers, such as insufficient nourishment or debility from fever or any other severe illness. These late or tertiary cases correspond with what we see in late syphilis in adults. In some cases considered hereditary we must not forget the possibility of the disease having been acquired in some casual way, especially when four months elapse before symptoms make their appearance. Fortunately instances of this kind are of rather rare occurrence, but we may now and again see a child acquire syphilis by means of vaccination as well be considered in a future paper, as well as by being nursed by a syphilitic nurse. On the other hand it is generally believed that if a child or young adult be the subject of hereditary syphilis, he seldom acquires syphilis even when exposed to contagion, or, in other words, that the inherited syphilis is protective against subsequent contagion. We know of a case at present of a young man 20 years of age affected with syphilitic psoriasis, having a history of eruptions on the buttocks in infancy, whose mother is also at present →

Insomnia.

See page 1114.

or tanned.

under treatment for tertiary ulcers on the leg. In this case the Doctor was blamed for having put on a foul pock.
Sleeplessness is one of the most frequent symptoms of hereditary syphilis, and so much is this the case that whenever we hear of a child being habitually sleepless, we should at least suspect the possibility of syphilis being the cause. A few children with undoubted syphilis do sleep well at night, but as a rule we have more or less uneasiness and crying in the evening, and they seldom sleep during the ~~day~~ night long at a time. Some mothers tell us that their child cries 'as if pained' or 'as if it had colic every night'; while others say that 'they never get a wink of sleep', or that 'this child never rests like any of the other children', or 'they never had any that slept so badly', or that 'it is very discontented'. We cannot explain this if it be not due to nocturnal pains in the long bones such as we have in adults.
In these cases there is no primary sore nor general adenopathy, & the skin has a leathery feel and what has been called a cape-au-lait appearance. The cry of a syphilitic child so affected is characteristically hoarse, and a peculiarity of this hoarseness is that it is not temporary as is that arising from a common cold, but it is always more or less chronic. When there is complete aphonia the child generally dies, but we frequently have entire loss of voice where there is no syphilis from prolonged crying

Erythema of buttocks -

or extreme weakness. Other children again who are not hoarse have a weakly peevish cry, and this when we cannot account for the crying; but it is believed to be due to a rheumatic affection of the long bones, and this idea is strengthened by having a marked thickening of the periosteum of the tibia. The favourite site for a syphilitic eruption to appear first upon a child is the buttocks, and it generally occurs in the form of erythema, and the appearance presented is one which causes the nurse or mother to suppose that it is simply due to scalding. It covers both hips and extends from the anus or beyond it forwards to the scrotum or labia. There is no doubt but that such an eruption is much aggravated by want of cleanliness, but this will never produce an appearance such as is presented by syphilis. Simple scalding and other eruptions such as Eczema impetiginodes must not be put down as being due to Syphilis. This form of Eczema is a decidedly strumous affection and ought to be carefully distinguished. Again, infantile erysipelas at times commences upon the buttocks and creeps up the back, and sometimes covers the whole body, but it is easily recognised. In both of these cases however we have known of syphilis being suspected by the mother, who might ask if it was 'anything dirty', and others who think themselves better informed are not slow to ask

* See page 169.

if it be anything ~~dirty~~ of the syphilis nature. In all cases we must be careful in replying to such enquiries. If there be no evidence of syphilis, it is our duty to assure the mother that there are no grounds for entertaining such an idea. On the other hand, if it be syphilitic, we must either waive the question or reply to the mother in such a way as to prevent her asking any more questions. In most cases however it is rather fortunate that where syphilis is suspected there is no syphilis, and on the other hand, where the case is a syphilitic one, syphilis is seldom thought of. In cases where the parent has no suspicion of syphilis, we may be warranted at times in saying that it depends upon 'an impurity or thinness of the blood' or that the mother's milk does not agree with the child. In this way, if we think it necessary, we may often get the mother to wean the child, or have it brought up by hand, or we can make this the pretext for putting the mother upon constitutional treatment. Some advocate this latter plan of treating infantile syphilis, but we are dissatisfied with such a mode of treatment alone, in fact we prefer to bring up such a child by hand, unless the mother be regularly treated, for if continued at the breast it is apt to receive fresh infection through the mother's milk.

Rumphiques.

Boils.

On no account must a syphilitic child be given to a wet nurse, for she will be certain to become infected, and the whole family will be apt to be exposed.
In the child as in the adult condylomata also occur.
Pemphigus, already referred to, belongs to the class Bullae, & is seldom seen of specific origin unless at birth. As such, it affects mostly the palms and soles and is a sign that the whole system has been almost or altogether poisoned with syphilis, — in fact few children recover from such a condition, who show these symptoms as early as the first month. Each bulla consists of a large vesicle containing a turbid fluid such as we find produced by Cantharides, and the underlying skin may or may not be ulcerated. In other cases there are large blotches upon the face, hands soles of the feet, lower part of the abdomen and buttocks of a distinctly red colour, shining and glossy, and with a tendency here and there to ulceration.
Boils often come out in the later stages of some cases, especially when there is much debility, and may be seen in various stages in the same case — one at its height, another midway, and another only appearing. They occur upon the head, body, thighs, and feet. The largest ones are usually upon the back or about the buttocks. The first sign of improve-

Mucous patches.

Phagedenic sores of the angles of the mouth.

Affections of Liver, Spleen, &c.

ment in such cases consists in the boils becoming less numerous - fresh ones ceasing to appear. There is usually considerable emaciation, and the skin looks like old leather spread upon the bones

Ulcerations when they occur in the true skin arise primarily from eruptions, generally of a scabby nature, which scabs fall off leaving an unhealthy surface and considerable undermining of the skin.

Mucous patches of the anus are usually found associated with erythema of the buttocks. Sores and mucous patches are frequently seen in children as well as adults at the angles of the mouth, the external angles of the palpebral commissure, and at the anus, and, although not invariably due to syphilis, yet they are always more or less suspicious of it as their cause. We have seen such sores at the angles of the mouth take on phagedenic action, thereby causing the mouth to be twice as large as it ought to be. In some such cases the tongue may also be ulcerated, which may either be of a simple or syphilitic nature. When sores occur upon the tongue and roof of the mouth, they may prevent a child from sucking, and so may indirectly be the cause of its death.

In many cases we find considerable enlargement of the liver

Onychia.

or spleen or both. We have seen the liver enlarged so as to reach well down to the crest of the ilium, and to be easily felt as a hard mass, but which disappeared entirely under treatment. Here the condition is evidently one of chronic hepatitis with more or less of peritonitis, so that along with the enlargement of the liver there is more or less pain, vomiting and purging or constipation. We have seen the feet also swollen, this being due most probably to pressure of the liver upon the Vena Cava. The mouth is often covered with thrush. The spleen can also be felt at times, but is more slow to return to its original size than is the liver. In many cases however of undoubted syphilis, no affection of either can be made out —

<u>Onychia</u> is of frequent occurrence in children. The nails inflame at the roots and soon get discoloured, deformed, are generally arched, brittle and drop off. Those of both hands and feet may be affected, and generally this affection is a symmetrical one. A scaly eruption frequently accompanies this affection. There is little pain, but the process of desquamation of the nail is an exceedingly chronic one. In the event of the child recovering it is interesting to notice the transverse markings upon the nails indicating the line of demarcation between sound and unsound nail structure

Complications of infantile syphilis.

Alopecia.

or as marks of successive relapses which may have occurred. It may get perfectly well under treatment even although it may have been very bad. This improvement may take place and yet the child may remain as sleepless as ever, indicating that the poison has not been entirely eliminated from the system — that although the disease has been cured in the superficial structures yet it still exists in the deeper ones, viz, the bones.

Any acute affection arising in a child the subject of syphilis, such as Bronchitis or Diarrhoea is frequently fatal, even although the attack do not appear to be a very severe one. When however diarrhoea does set in it is often very severe and uncontrollable as well as unaccountable in its causation. We have seen a single dose of Castor oil produce diarrhoea which could not be subdued by ordinary measures and which ultimately proved fatal, the bowels previously rather having had a tendency to be confined, even in spite of the regular administration of grey powder. In infants especially therefore visceral syphilis should always be kept in mind, and great care should be taken in the use of purgatives.

Even in cases which are only moderately severe, there is generally more or less <u>Alopecia</u>. This as a rule however is

Hutchinson's teeth.

Mercurial teeth.

not so marked as in the adult, although the hair falls out and remains thin till treatment begins to take effect. It may even extend to the hairs of the eyebrows and eyelashes.

The notched condition of the milk teeth which has been fully described by Hutchinson, is in some cases very characteristic. The upper central incisors are more commonly affected than any others, and in some cases the state of these teeth is of great value to us as an aid to diagnosis. In many well-marked cases of syphilis however this symptom of syphilitic blood poisoning is entirely absent, but occurs in the permanent set of teeth. The milk teeth may begin to be affected a few weeks after their eruption, and, by the time that the molars have appeared or even before that, the notching out may have advanced considerably. As a rule there is more or less unhealthy colour of the teeth accompanying this affection. This notching is however not always due to syphilis, but may be caused by struma. In some cases instead of the teeth being notched we find the two lateral ones of the permanent set wanting. This is a point of some importance in a doubtful case. It is necessary carefully to distinguish syphilitic affections of the teeth from the so called 'mercurial teeth', i.e. those which have been destroyed by the specific action of mercury,

but it is exceedingly doubtful if mercury can be blamed in all cases for this affection of the teeth. These appear craggy rather than notched, and have here and there small holes as if they were worm-eaten. It is interesting to notice in the case of the honey-combed teeth that usually the central incisors have more uneven markings &c than the lateral ones, and these again than the canine ones or molars. We frequently notice transverse markings similar to those upon the nails as evidence of past illnesses. We would expect not to find such an affection of the teeth nowadays owing to the much less frequent use of mercury, but it is still sufficiently common to deserve attention, for, even at the present day, calomel and other mercurial salts are given by some practitioners to children not by the grain, but simply prescribed in quantity, and a pinch ordered to be given daily or more frequently and that for other affections than syphilis. Of course both of these affections have to be carefully distinguished from simple caries. Again, in a large proportion of cases the teeth are found to be flattened on their edges as the result of tooth-grinding: the teeth mostly ground are the incisors and canines, but this is modified according to their arrangement in the jaws.

In infantile as in acquired syphilis we frequently have more or less anæmia

Inequality of the Head.

Cranio-tabes.

Disease of Ears.

Inequality of the head is said to be a sign of syphilis. This we have seen in diseased children but also in strumous ones who bore no evidence of being affected with syphilis, unless we admit that there is a connection between struma and syphilis; but assymetry is almost the rule in infantile skulls. Syphilis may accentuate this condition which however is a normal one.

Cranio-tabes is said to be due to syphilis, but is not met with in every case. M. Parrot accounts for the development of osteophytes around the bregma from irritation of the periosteum. This may be the only sign we have in a case of syphilis, but as a rule we have affections of the skin or mucous membranes, or, as we have seen, considerable enlargement of the spleen or liver.

On account of the frequency of nasal catarrh in these children, it can easily be understood that ear disease is very common, — the catarrh spreading along the Eustachian tube. In arriving at a conclusion as to the nature of a given case of ear disease, the appearance of the teeth and cornea is often of much service as an aid to diagnosis. Such children are often both deaf and dumb, and this may occur in only one member of a large family, the others being healthy, the deaf and dumb one having probably contracted

Corneitis.

Liability of Syphilitic Children to Convulsions.

Treatment of Infantile Syphilis.

disease from a wet nurse. We have seen the ear disease so far advanced that water which had been injected by one nostril escaped by the ears instead of by the other nostril. The Cornea and iris are often inflamed especially the Cornea. This affection has been carefully described by Hutchinson along with notching of the teeth as two indisputable evidences of hereditary Syphilis. Interstitial keratitis as it has been called often occurs as one of the late manifestations of hereditary Syphilis. The Cornea is hazy, ground-glass-like all over, but more so in some places than others, and there is more or less dimness of vision. There seldom is any ulceration, and this helps to distinguish it from the strumous affection; and generally there is more or less notching of the teeth, and likewise the physiognomy of the patient assists in the diagnosis, and there are no enlarged glands as in strumous subjects. Recovery is always slow and only specific treatment is of any use.

Many children although not born syphilitic are subject to convulsions, scrophulous affections and other weaknesses, which although not like Syphilis are undoubtedly due to it.

Treatment of Infantile Syphilis.

According to the intensity of the syphilitic poison should the treatment of a given case vary. This applies to the adult as

Observations on the treatment of some forms of venereal disease.

by

David Tindal. MB. Glasgow.

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well as to the child. In both, the more slow we are to put our patient upon proper treatment, the more likely are we to require a long period of treatment and with a proportionately less happy result. The same holds good as regards the efficiency of the treatment, e.g. if we put a certain skin case upon an arsenical preparation instead of upon a mercurial one or a combination of both, the result will be much less satisfactory and less permanent, if not absolutely nil. Some cases require and will bear much larger doses of mercury and iodide of potassium than others, and a dose which suits a patient at the commencement of treatment will have little or no effect at a later stage of the illness. The colder the season or climate the more rapid is the appearance of the eruption. When treating any patient it is of great importance to remember the diathesis, whether strumous, gouty, or syphilitic, or a combination of either. If the patient suffer from Bronchitis and be syphilitic, we should combine anti-syphilitic treatment with that required for the Bronchitis, — if a child give mercury, if an adult use iodide of potassium in the cough mixture. If previous children have been syphilitic, we ought to watch the child carefully even although it may appear healthy; and if there be anything to indicate the possibility of its being infected we should not wait for the appearance of symptoms,

Mercury in the treatment of infantile syphilis.

Iodide of Potassium & Potassio-tartrate of iron sometimes better than Mercury.

Mercurial inunction.

Mercurial baths.

but at once put the child upon treatment. In many cases the necessity for this or not will depend upon whether or no the parents have previously been put upon treatment.

There is no remedy we know of so effectual in subduing syphilitic symptoms as mercury. We have often seen an undoubted syphilitic eruption disappear under the use of grey powders for a week, but notwithstanding the remarkable effects of mercury in hereditary syphilis, we always have a high rate of mortality. The efficacy of mercury is so remarkable that we cannot understand how anti-mercurialists can possibly hope to treat with success cases of infantile syphilis. Iodide of potassium and potassio tartrate of iron are rarely of much value in such cases, at any rate in the early stages. In some instances, however, of delayed hereditary syphilis, they seem to answer better than mercury, especially when there is any tendency to phagedæna, rupia, ecthyma, or a strumous constitution to deal with. A case lately under observation got much worse under grey powders, but rapidly improved under iodide of potassium and potassio-tartrate of iron.

If we wish to bring the system rapidly under the influence of mercury, as we generally wish to do in cases badly saturated with disease, we employ mercurial inunction.

Baths with a mercurial salt dissolved in the water, generally

the perchloride, are also recommended in Children in place of the vapour baths used for adults, and appear to aid the other treatment. In all cases it is of the utmost importance to have the skin kept in as good a condition as is possible, and the mercurial salt in the water is intended to have a specific effect upon the skin and any ulcerations which may be present. ℥ss to ℥i of the perchloride of mercury, with a little Tidman's sea-salt or rock salt to dissolve the perchloride, will make a very efficient bath for a child. This may be used every other day unless it tend to produce Erythema. We do not recommend these baths if the skin be seriously affected.

Although syphilis may not kill the patient directly, yet, as has been already said it is by no means unusual to lose children on account of the complications - bronchitis, diarrhoea, &c. We must therefore be very careful in our use of mercury, whether in the form of grey powder, mercurial inunction, or Calomel dusting. These are apt at times to do more harm than good by upsetting the stomach and bowels, so that the dose of the mercurial must be very small at first and its effects carefully watched. For internal use grey powder is the best, and at first should be used in gr ¼ or gr ½ doses at bedtime till it is seen if the

Van Swieten's drops.

bowels are able to bear it, when it may be gradually increased to gr1 and then if possible it may be given two or three times times a day. If it should produce the least diarrhoea, the dose should be lessened or it should be stopped for a day or two. Some children can bear the addition to it of Howard's bicarbonate of soda, which increases its effect, while others require it to be mixed with prepared or aromatic chalk powder to prevent it acting as a purgative. Sometimes when there is much anæmia, the saccharated carbonate of iron may be combined with the grey powder. Neither in the adult nor yet in the child is Calomel a good preparation of mercury for internal use; it too readily produces diarrhœa, and when, to avoid this, opium is added, it rapidly produces salivation in the adult, while it is a very unsafe drug for young children. The therapeutical effect can be obtained without the necessity for producing salivation, and although children are not easily salivated, mercury acts upon them in the way of producing marked anæmia when given in excessive doses, which is slow to be recovered from. Mercury ought not to be used in any form in the case of a child who has any tendency to diarrhœa.

"Van Swieten's drops", a solution of perchloride of mercury in alcohol, is another very good preparation for children,

Treatment of boils.

Importance of a flannel bandage.

" . perfect cleanliness.

for whom grey powder may be unsuitable.
Treatment should be continued not only till all appearances of disease have ceased to exist, but till the child's general health has improved. Even after the child is well the medicines ought not to be abandoned all at once, but given off and on, at the same time making use of some general tonic such as diluted hydrochloric acid, quinine, cinchona, syrup iodide of iron, or cod liver oil.
If a relapse should take place treatment must be at once resumed.
In the treatment of boils, it is well to open the large ones after which they usually heal well, unless the child be too far exhausted.
A flannel bandage - blue - applied so as to cover the abdomen twice gives considerable support and protects the bowels.
Perfect cleanliness must be observed, especially with regard to the discharges, in cases of erythema of the buttocks. The parts must be carefully washed with some non-irritating fine soap - glycerine or oatmeal soap, after changing each napkin, then thoroughly dried, and a mixture of equal parts of Hubbocks or Howards oxide of zinc and powdered lycopodium well dusted on. The calomel

Inunctions of oils.

Treatment of Syphilis in Strumous Constitutions.

Treatment of Complications – diarrhœa.

dusting powder used for adults is too strong for use in the case of children.
Napkins must be changed as soon as they have become damp or soiled.
In cases where there is much debility and no skin eruption or diarrhœa, the inunction of cod liver, neat's-foot, or salad oil once or twice a day is often of service in assisting to support the strength. It should be warmed before being applied, and it is well to have it washed off every day or two with warm water and soap.
Where in addition to the syphilis we have also a strumous constitution to deal with much benefit may often be obtained from the use of cod liver oil internally once or twice a day even although no more than a few drops be given at one time, but it must on no account be given if there be any tendency to diarrhœa
Beef tea may be given regularly if the bowels will permit. Should there be any diarrhœa, lime water or the concentrated solution of lime may be given with sweet milk or the milk may be thickened by means of gelatine or isinglass, and the beef-tea may be treated in the same way. Should these remedies not suffice, a mixture containing bismuth and aromatic chalk powder of the London pharmacopœia will control it best. Whisky and water may be given if debility be extreme

Treatment of ozæna.

Selection of Wet-nurses.

When the nostrils get stopped up they ought to be carefully syringed with an india-rubber ball syringe three or four times a day with tepid Condy's fluid. This is particularly useful before giving the child a drink, as it enables it to breathe more freely while drinking than it could otherwise do. Calomel ointment, prepared by mixing 2 or 3 grains of calomel with ℥i of lard, vaseline, or zinc ointment, should be introduced into each nostril after each time the syringe has been used.

We may here allude to a few points which should be attended to in the selection of a wet nurse. Of course we should never forget the possibility of the nurse being affected with Syphilis, and, if there should be any such suspicion, we should shun such an one just as much as we would do if she were phthisical. Erichsen says that 'there is no doubt that a wet-nurse labouring under Constitutional Syphilis can infect the child that she suckles, the infant being contaminated through the medium of the milk.' The posterior cervical glands ~~glands~~ should be examined, the eyes, the throat, and the hair, and enquiries should be made as to attacks of 'Rheumatism'. The constitution, appearance, family history, and temper should be taken into account; a country-bred woman, between 20 and 30 years of age is to be preferred. The state of the

mammae and nipples should be observed.
The condition of the teeth is a good indication as a rule of the state of health, although some phthisical individuals have very good teeth.
The marks in the ears after piercing are often a guide in the selection of a wet nurse, for we find in unhealthy subjects that the punctures do not heal well and are liable frequently to take on an unpleasant appearance, which may occasion a cicatrix of considerable size.
We should not select a fat woman, but rather a thin wiry one, who must neither be pregnant nor in the habit of menstruating while suckling. It is important that her diet should as far as possible be the same as she is accustomed to.

On the other hand we should bear in mind the possibility and even probability of a nurse being infected by a syphilitic child. We have seen such a case. If such a child do not infect its nurse then she has already had syphilis. Of this also we have seen an instance, and although symptoms were watched for none appeared.
We should always examine the nurse's children and make sure that they are her own, and she must not live with her husband while she is nursing, for she may at any time contract

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Special indications for a mother not nursing her child

Tendency of hereditary disease of remain latent

disease. In any case of doubt it is important to be able to distinguish between syphilis as we usually find it "by conception" and syphilis inoculated in the usual way or through the medium of another persons syphilitic child. In the first case as has been pointed out under "Syphilis and pregnancy" there is neither any primary sore nor adenopathy, while in the second & third cases we have both a primary sore and adenopathy but in the third case the nipple is the usual seat of the primary sore and its corresponding glands of the primary adenopathy. In the same way it is useful to be able to distinguish between hereditary and acquired infantile syphilis, in case the nurse should at any time be blamed for giving her suckling disease. In acquired infantile syphilis the primary sore generally appears upon the lip or seat of vaccination and there is a general adenopathy; whereas in hereditary syphilis there is neither primary sore nor general adenopathy.

A mother should not be allowed to nurse if she have an eruption indicating a cachectic state, such as Ecthyma, Rupia, &c.

Although there is a tendency for syphilis to disappear through time in the adult, there does not appear to be the same tendency in the child, for we have seen a severe type of syphilis

Indirect method of treatment -

Treatment ought to be chronic.

Hereditary Syphilis and Rickets

occur in a child of five years of age.

The treatment of Syphilis through the medium of the mothers milk ~~milk~~ is uncertain, for, even if she ~~do~~ take her medicine regularly, we cannot tell how much of it may be absorbed and pass into the milk; still, in slight cases, this indirect method of treatment may be sufficient.

In all cases treatment should be persevered in for a long time after all traces of the disease have disappeared, and ought to be given up gradually so that the system may not so readily feel the want of it.

Hereditary Syphilis and Rickets.

Rickets is very common in children who have been the subjects of hereditary syphilis. This seems to be due to the severe strain put upon the whole system but especially the osseous portion by the syphilitic poison. This affection of the bones is interesting when it is remembered that in tertiary syphilis the bones are also affected, although in a different way. Some deny that there is any connection between the two diseases, but we are of opinion that a severe illness such as syphilis in children must predispose to rickets, and we know of a child who became rickety after suffering from a severe attack of syphilis, and also of another instance where the first child is markedly rachitic and the third child is saturated with Syphilis. In reference to this subject,

Lancet, March, 3, 1883.

Other Causes of Rickets -

M. Lamelongue, in a recent article in the Lancet says:
"Although some physicians have attributed to inherited syphilis an important part in the production of rickets, it is certain that this opinion is erroneous. Nevertheless there is nothing incompatible in the two diseases; they may unquestionably co-exist, and it is probable that the malnutrition due to the specific disease may be a potent factor in the development of rickets in such a case."

It must not be supposed however that all cases of rickets are due to syphilis, e.g. diarrhœa is one of the most fruitful causes of rickets. Again, we see every day children who we cannot say are syphilitic, but who appear to be suffering from a combination of struma and rickets, although these two diseases have no connection as a rule. They sleep badly at night, and are fretful and peevish during the day, and in short are delicate children. They are generally found to be bathed in perspiration, the bones are badly formed, and their teeth decay rapidly, often the incisors having quite disappeared before the molars and canines have been cut. In such children we may suspect that there is a syphilitic taint. Such a child taking whooping-cough or acute catarrhal pneumonia or in fact any acute pulmonary affection, is very apt to succumb. They are also very prone to take convulsions,

Treatment

St. Raphael Tannin Wine.

Locomotor Ataxy. Tabes Dorsalis, and Syphilis.

and any one who has had much experience among children knows how frequently syphilitic children succumb to meningitis, some even dying very suddenly.
As a rule syphilitic children cut their teeth early and with ease, whereas in rickety children dentition is more or less delayed and difficult.
The two affections differ very much in their treatment, that which we have mentioned as being most useful in syphilis being that which above all others must be avoided in the treatment of rickets. Mercury is decidedly hurtful in such cases, and should generally be avoided even as a purgative. The remedies found to be of most service are those which we are in the habit of prescribing to children who have recovered from syphilis with the view of preventing the occurrence of rickets, viz, cod-liver-oil, iron, quinine, iodine, alkalies & tannin (tannin wine). Any complications require immediate attention and to be managed according to general principles.

<u>Locomotor Ataxy, Tabes Dorsalis, and Syphilis</u>

Much difference of opinion has recently existed as to the relationship between these affections. If there be any connection we think that it is something the same as has been said to exist between syphilis and rickets in children. Some however deny that there is any connection, and think that drinking

V.

Vaccinal Syphilis.

habits and other excesses have much more to do with bringing on that affection than syphilis has. Even if we take it as granted that the one disease is the effect of the other, we can only expect to be successful in our treatment if it be applied early and energetically. Some time ago a case of locomotor ataxy came under observation, and, after careful study of the case, it occurred to us that there might possibly be a syphilitic taint. Specific treatment was accordingly adopted, but, as no improvement was observed, it was not persevered in satisfactorily, and ultimately the man died. Since then his widow has been under our care with tertiary ulcers on her legs, thus confirming the original opinion of the case.

Vaccinal Syphilis

or the accidental transmission of syphilis by vaccination.

Vaccination has been frequently blamed for giving rise to disease in children, but it is only within recent years that the possibility of inoculating syphilis during this operation has been clearly demonstrated.

With regard to the many eruptions which show themselves after vaccination and which are said to be due to it, we are of opinion that in many cases they are mere coincidences, for it is well known that at the age at which vaccination is

usually performed. Children are prone to be affected with skin eruptions and other ailments due to teething, improper feeding &c, and every physician has frequently to congratulate himself that he has postponed the operation in a certain case by finding an eruption making its appearance within a week or two of the time when the child would otherwise have been vaccinated. We do not however deny that vaccination does now and again cause eruptions of various kinds, but such cases are not very common and the eruptions usually subside in a few days, the children being little or none the worse for them. With reference to cases of this kind Dr McVail says that decomposing lymph i.e. lymph which has been kept upon points or in large tubes containing air, is a common cause of cases going wrong and of eruptions appearing, the presence of which he takes as evidence of the lymph being decomposed and of poisoning of the blood. He says he has even noticed on breaking a capillary tube a distinct putrescent odour emitted, and from this he argues in favour of always adopting arm to arm vaccination.

Eczema impetiginodes is of common occurrence and is often due to infection - impetigo contagiosa, as well as to want of cleanliness. When the pock itself becomes impetiginous, this can usually be accounted for by its having been injured while at the same time

Vaccinia gangrenosa.

at first supposed to be due to Syphilis.

the child is probably a strumous one.
"Mr Hutchinson some time ago described a case of vaccinia gangrenosa, and exhibited the body of the infant - who had been vaccinated three months before death from the arm of a healthy child. Three other children vaccinated at the same time from the same source took no hurt. On the eighth day after vaccination a papular and vesicular rash appeared on the trunk, which rapidly assumed a sloughing character. The eruption was at first taken for small-pox, and, when death took place a fortnight later, an inquest was held on the case for it was then thought to be syphilitic. But Mr Hutchinson pointed out that its evolution as well as its characters were not those of syphilitic infection, & he considered it to be a case of true vaccinia passing on to a gangrenous condition — a condition he had sometimes observed to take place in varicella. The vaccine marks on the arm were natural."
We have seen an eruption of a measly appearance follow vaccination, having all the characters of syphilitic roseola. It came out however only ten days after inoculation, and disappeared in a few days, and other children who were vaccinated with the same lymph were not affected. In this case the eruption came out too soon after inoculation for any

Remarks on the use of Calf lymph.

any idea of its being syphilitic to be entertained. Besides it disappeared in a few days, which it would not have done had it been syphilitic, and other children vaccinated with the same lymph would also have been affected

While anti-vaccinationists, or as they name themselves vaccino phobists, are as a rule the most active parties in proclaiming such cases, we frequently hear a mother say regarding her child – 'he has never thriven ever since he was vaccinated.' On enquiry however we shall generally find the cause for the child not thriving to be due to diarrhoea, which again is probably connected with the cutting of one or more teeth, or the too common practice of feeding with all sorts of food stuffs and sweets, or the milk supply may be deficient in quantity or quality or both, and the child may be actually starving for want of sufficient nourishment in the breast milk.

Because now and again vaccination is blamed for giving rise to a child's ill-health, we would not on that account abolish it, but would suggest to any individual who has any misgivings with regard to it as usually practised that he should avoid running any risk by having recourse to vaccination with animal lymph. It is well-known however that animal vaccine is not nearly so certain in its effects as is lymph which has passed once or twice

Ulceration caused by inoculation of Reiper vaccine on a syphilitic subject.

through the human subject or humanised as it has been termed. It does not produce such a good pock, and to take any effect it must be new, and this is a great draw-back to its general employment. If, however, it be perfectly fresh, it may produce a more perfect pock than lymph which has been long in use and which may have become weakened; but even animal lymph is not free from the objections urged above to human lymph of giving rise to eruptions and even erysipelas. Such mishaps are perhaps of more frequent occurrence with the former even than with the latter. In a recent report to the Carolina Board of Health, Dr Thomas F. Wood says that he "regards the reasons in favour of the arm to arm practice as outweighing those in favour of the use of lymph direct from the calf, its effects being milder, more uniform, and more convenient than those attending the use of bovine lymph. Others opinions of a like nature are given, for which see Lancet of 26th May, 1883.

In a late number of the Glasgow Medical Journal the following case is quoted. "In the Gazette des Hôpitaux of 23rd August, 1879, Dr Victor Revillout reports the following case:- On the 15th July last, a carman, æt. 63, was admitted to the Hôpital Necker under the care of M. Blachez. He had on the left arm several large pustules of ecthyma, evidently of syphilitic origin. Patient stated that he had contracted a chancre when about forty years of age, and

shortly afterwards an eruption appeared similar to that now under observation. It had recurred since then in successive crops at short intervals, but the other indications of syphilis were conspicuous by their absence. Four days before admission, patient had been vaccinated from the heifer, by three punctures in the right arm, the fact of his suffering from syphilis being quite overlooked as the eruption was confined to the left arm. For the first few days there was no evidence of the vaccination having taken effect, but, on the tenth day there appeared three large pearly-white vesicles, much larger than those of true vaccinia. The inflammatory areola became very marked and spread rapidly, inducing in a very short time a general tumidity of forearm and hand — passing through the pustular stage, three round well-marked ulcers were left each fully 3/8 of a inch in diameter; and, as the surrounding tissue was still very much inflamed, they might easily have been mistaken for chancres of inoculation. A fortnight after the ulcers had nearly healed, and the inflammation had passed off. The lesson to be learned is obvious. If, in place of employing heifer vaccine, it had been taken from a human subject, and if the syphilitic character of the eruption which happened at the time to be confined to the left arm, & in a few days later had disappeared, had not been so very evident, a new case of syphilitic inoculation would doubtless have

Arm to Arm vaccination most satisfactory.

Lymph should always be traced.

been discovered, and possibly made the means of bringing vaccination into disrepute" Animal lymph is therefore free from all possibility of being a vehicle for the transmission of syphilis, but, showing that it is not free from danger, reference is made in the Lancet of May 19th 1883 to the death of a child who had been vaccinated in this way. There can be no doubt but that it is occasionally followed by more inflammatory and severe effects such as erysipelas than is usual after vaccination with humanized lymph. While experience shows that vaccination from arm to arm is the most satisfactory, yet it must be confessed that it is of considerable advantage when necessary on account of the stock in hand becoming exhausted, deteriorated or in the case of special request to be able to renew the "stock" of vaccine by return to the animal. This also enables the physician to trace the course of the lymph, and so relieves the minds of his patients as well as his own. Formerly we were frequently compelled in order to keep up our stock to take lymph from children who did not appear very strong, altho' they might be merely strumous or even not affected with any particular malady. By keeping a note of all vaccinations we are enabled to trace the lymph back as well as to show other children who have been vaccinated with the same lymph. By most writers special stress has been put upon the great care that is necessary while taking

Quotations from Rousseau's lectures.

lymph to avoid taking at the same time the least trace of blood and some even go the length of saying that if we are particular on this point, we may vaccinate with safety from any child even a syphilitic one, but we think few would be found sufficiently bold as to knowingly do such a thing. Writing on this subject, Trousseau, (Vol. 2. page 124) says:- "The choice of the subjects from whom the supply of vaccine lymph is derived, and the health of the persons to be vaccinated are also matters of importance. xxx "There is a point to which I desire to call your special attention; it is - never to vaccinate with lymph taken from one under the influence of the syphilitic diathesis. The transmission of the great pox by vaccination is a fact which now seems to have been demonstrated - Since the beginning of this century, and particularly in later years, cases of this kind have been recorded both in France and in foreign countries". He then describes a case where 23 days after inoculation Ecthyma pustules were developed over the seat of two of the punctures, which again changed into Rupia a fortnight later and which were indurated at the base, and accompanied by indolent turgescence of the axillary lymphatic glands, and followed by a characteristic eruption of Roseola. It is very likely that Trousseau was in error with regard to the above case, because the evolution of the secondary symptoms

was too early, and ecthyma appearing followed by roseola is reversing altogether the order of events among the syphilides. "I agree with Viennois," says Trousseau, "that one ought never to use vaccine lymph taken from a suspected subject, and that in respect of infants one ought not to take it unless the infant has passed four or five months, the age at which hereditary syphilis usually shows itself by visible signs; for infantile syphilis, even before it appears on the exterior parts of the body, is transmissable." "But I cannot" he says "in any degree adopt the conclusions of this author," when he adds:- "if special circumstances make it necessary to take vaccination lymph from a syphilitic patient, great care must be observed so as to draw the pure lymph without the slightest admixture of blood or syphilitic humour." "I cannot" says Trousseau in any circumstances whatever sanction vaccine matter being taken from a syphilitic subject. It is more a matter of hypothesis than of demonstration, that it is only by the blood that syphilis can be transmitted in this class of cases. Besides, it is rather difficult to understand how that which is contained in the serum of the blood, that is the syphilitic virus, should not also be contained in the serosity of the vaccinal pock. Finally, it is so difficult to draw off the vaccine lymph free from "the slightest admixture of blood

or syphilitic humour, that the recommendation of the required precaution amounts, so far as I am concerned, to a prohibition. My opinion on this point admits of no modification. Abstain always from taking lymph from a syphilitic subject." Again he says:- "I cannot too earnestly recommend you to examine with the greatest possible minuteness the subject from which you take the lymph for your vaccinations, and to abstain from taking it not only from syphilitic persons, but likewise from all who present the slightest ground for your suspecting that they have venereal contamination." Lastly on this point he says:- "Infants with hereditary syphilis readily take the cow-pox, whether the syphilis be still latent, or whether it has showed itself by unmistakably visible signs. Without entering into too much detail, I would, in proof of this assertion, remark that you have often seen in my wards the normal development of cow-pox in infants who at a later period showed symptoms of hereditary syphilis, as well as in other infants who were admitted to be treated for syphilitic psoriasis, rupia, and other venereal affections. Syphilis then does not constitute an obstacle to the development of cow-pox. It is not so with the eruptive fevers. For example, when measles and scarlatina supervene during an attack of syphilis

Experiments.

the progress of the latter is arrested, and is not resumed till the exanthematous disease has run its course."

We have extracted the above in full for the reason that we wish to show the importance of it as borne out by experiment. In the Lock Hospital some years ago the following experiments were made for the purpose of ascertaining the conditions necessary for the transmission of syphilis in vaccination. A child who had had the usual syphilitic erythematous eruption upon its buttocks & but which had disappeared without treatment, was vaccinated with pure lymph. The pock was a good one, & from it a healthy child was vaccinated. The result here was also satisfactory, both as regards the pock and the absence of any appearance of syphilis. Another syphilitic child was vaccinated with pure lymph, but in whom the disease was still in an active state. A good pock resulted, from which a healthy child was vaccinated. Here also the pock took well, but, instead of running its usual course, it did not heal well, but by-and-by it did heal, leaving a coppery coloured cicatrix, an indurated base and enlarged glands in the corresponding axilla. This was followed in about three weeks by secondary symptoms. The difference in the two cases above narrated consisted in the lymph being taken in the one case while the disease, although in the system, was latent or

Blood in lymph.

Syphilis awakened by Vaccination.

Diagnosis of Vaccinal Syphilis.

quiescent, and while in the other case it was in full bloom or in an active state

With regard to the oft-repeated cautions about the necessity for great care being taken so as to exclude blood from the lymph, we are of opinion that no such precaution is required, for experiments have been frequently performed with the view of inoculating syphilis through the medium of the blood and they have invariably failed, so that although the precaution is a good one, it simply amounts to this that if a vaccinator is careful to exclude the least trace of blood in all cases, he will also be particular as to the state of health of the children from whom he takes the lymph as well as those upon whom he inoculates it.

Sometimes the fever produced by vaccination tends to create an awakening of the disease in a syphilitic child. In such a case however there is no induration of the base of the pock or adenopathy, therefore vaccination has clearly had no share in the production of the specific disease, beyond hastening its evolution.

It is necessary, in the event of meeting with a case in which vaccination is blamed for occasioning disease in a child, to have a clear idea of what the exact nature of the case is — in the first place if the child is really suffering from syphilis, and

secondly, if so whether it be hereditary or whether it have been acquired, and thirdly if acquired whether this have been brought about through the medium of the vaccine lymph. The following notes of a case which was lately observed will best convey the required information. A lady gave birth to twins, and within a few hours died of some unknown cause. The twins were accordingly brought up upon the bottle and throve upon it. By-and-by one of the twins was vaccinated with lymph from a child who was then and is still in good health. The pock was taken to be a satisfactory one, and from it the lymph was taken with which twin No. 2 was vaccinated. This one also had a good pock. By-and-by however an eruption appeared upon the buttocks, scrotum, umbilicus, &c of No. 1 child – the usual erythema which one meets with in ordinary infantile syphilis. On examining the cicatrix on the arm, it was noticed to have a coppery appearance, a distinctly indurated base, and the glands in the axilla were markedly enlarged. Without going further into detail, the same thing may be said to have happened to No. 2 child. They were both put upon grey powder, and are at this present time getting well. As to this actually being syphilis there can be little doubt – the coppery cicatrix, the indurated base, and enlarged glands, followed by the usual eruption, all of which are disappearing under specific treatment,

Note. With regard to this case we may remark that although the Child from whom the lymph was first taken appeared then and is still in good health it is almost certain to have been syphilitic. In bearing out this idea, we well remember of a mother selecting as the Child from whom her own Child should be vaccinated one who appeared in excellent health and in fact was so to all appearance, but who a few weeks previously suffered from syphilitic erythema of the buttocks and legs, which rapidly disappeared after a few grey powders had been given.

point unmistakeably to Syphilis. Then as to whether the Syphilis was hereditary or acquired, we would certainly take the latter view of the case, for as has been already pointed out, in hereditary Syphilis we have neither a primary sore, indurated base, nor adenopathy. And lastly, we are of opinion that the Syphilitic poison was conveyed into the systems of these two children along with the vaccine lymph, on account of the copper-coloured cicatrice with indurated base as well as the enlarged glands corresponding therewith. Moreover, this view was also taken by Professors McCall Anderson and Dunlop who examined the children, and who have considerable experience in the diagnosis of Syphilis. Note.

Another case was shown by Professor McCall Anderson at the Lister Infirmary about 8 years ago, but in this instance the child inoculated the infecting sore upon the mother's nipple.

Erichsen, in his Science and Art of Surgery, Vol. 1. p. 645, relates the often quoted Rivalta outbreak of Syphilis among young children after vaccination. In the first instance 46 children were vaccinated off one child ten days after the first child had been vaccinated, and again 17 were vaccinated from one of the 46 lot of children. 39 out of the 46, and 7 out of the 17 took Syphilis - 6 out of the 46 died. 20 women again were inoculated from their children, and the disease also reached through the mothers the husbands as well as some of the members of these families. In these

New Sydenham Society. Vol. 2. p. 126.

cases we think that one grand mistake was committed in vaccinating ~~the~~ children from the same lymph, and that another mistake was made in allowing the pock to be ten days old before the lymph was taken from it for vaccinating these children. We are of opinion that no matter how good the lymph may be supposed to be it is quite sufficient to make four vaccinations from any one child, and that lymph should never be taken after the 8th day of the pock. It is true that the quantity of lymph obtained at and before the 8th day is not so large as at a later period, still the risks are considerably increased after the vesicle is surrounded by an inflamed areola. Highly serous or unripe lymph is not recommended or such as is mixed with suppurating matters, and it is of importance to remember that lymph should never be taken from adults. The child to be vaccinated should always be examined prior to the performance of that operation. Rousseau, writing on a similar outbreak at Lupara, details the appearance first of "characteristic venereal ulcerations" following the vaccinal pock and "swelling of the axillary lymphatic glands"; then, about 3 months after, the appearance of "roseola, impetigo, syphilitic papules and even pemphigus," affections of the lips, mouth and anus, vulva, scrotum, and "consecutive enlargement of the posterior cervical and inguinal glands, loss of flesh, and disturbance of the general health."

Mr Hutchinson on Vaccinal Syphilis.

Auto-inoculation of Syphilis.
(Parliamentary Report.)

The Anti-Vaccination Party and Sir Thomas Watson.

In the Transactions of the Medico-Chirurgical Society, Vol 54 1/2 and Proceedings 1873, Vol 7, No 3, page 109, Mr Hutchinson says that the possibility of this disease being communicated by means of vaccination should always be borne in mind, and advises the physician never to vaccinate from a child whose parents are unknown to him, and as far as possible not from first-born children. He also insists upon using only perfectly transparent lymph and with no trace of blood.

Quite lately one of the Officers of the Local Government Board in the course of an investigation into the conditions under which Syphilis can be transmitted, infected himself with Syphilis, and so has seriously injured his health. In this case however it has been shown that this could not have happened had not the ordinary practice of vaccinators been departed from.

We seldom vaccinate before the 4th and never before the 3rd month, so that should there be any syphilitic taint, it may have had time to develop itself. Of course if animal lymph be used this objection does not hold good, and this is the chief value of the latter, viz, to prevent the possibility of syphilis or any other disease being inoculated.

In advocating the public practice of animal vaccination as an alternative to arm to arm vaccination, - not to abolish the vaccination laws, Sir Thomas Watson in his Opinions on the Vaccination laws

VI.

The Contagious Diseases Acts.

1. The intention of the Acts, and the advantages derived from the working of them.

says; "I can readily sympathize with and even applaud a father who with the presumed dread of inspiring in his mind, is willing to submit to multiplied judicial penalties, rather than expose his child to the risk of infection so ghastly (as syphilis)."

The Contagious Diseases Acts

In considering this subject, it may be useful to do so under three heads, viz. 1st. The intention of the acts and the advantages derived from the working of them. 2nd. The objections to them and the points wherein they have failed. And 3rd. Now that they have been so far repealed, what measures should be adopted to replace them. First then, the original intention of the Acts was for the purpose of preserving the health of Her Majesty's soldiers and sailors. On this account they were not made general, but were confined to the principal sea port and garrison towns, for it is generally believed that our soldiers and sailors are the most active parties in the propagation of venereal disease, and therefore some act is absolutely necessary to control the spread of disease especially in sea port towns. But no one who has given the subject any consideration can fail to notice that in truth these acts have been useful and probably beneficial not only to soldiers and sailors, but also to young men in so far as in those districts

Glasgow Herald, May 8/83.

Lancet., May. 12. 83.

in which they were in operation they have been to the latter to a certain extent a security against disease.
In the towns under the operation of the acts there is said to have been a marked "improvement in public order and morality," ~~in the towns~~ and the severity of venereal diseases among prostitutes themselves is said to have diminished, 'as well as an improvement in their appearance, manner, and cleanliness' to have taken place. 'The reduction in the number of brothels and prostitutes' however is open to dispute as well as the 'improvement in their character and conduct', and we question very much if there have been the 'large reclamation of these and especially the juvenile ones' which has been stated. The Acts are said to have had 'a deterring influence on young girls who are tempted to adopt prostitution', as 'a large number returned to their friends when they found they were under observation, and the same results were noted to have occurred in every place to which the Acts were extended'. There can be no doubt but that by their means venereal disease is discovered at an early stage, and the severe forms of it formerly seen are now of rare occurrence. As we are situated at present in this Country without any act, we find that no amount of hospital accomodation will induce prostitutes to take advantage of them, till they are actually so badly diseased as to be no longer able to carry on their profession, thereby being the means of doing much harm. Even those who do enter a

II. The objections to the Contagious Diseases Acts and the points wherein they have failed.

hospital cannot be persuaded to remain till they are cured, but so soon as they are sufficiently well to go about and practice their profession, they leave the hospital caring not how much they may spread disease. The suppression of street solicitation is one great boon conferred by the Acts, and this is due to the fear the women have of being brought under the Acts, and of this beginners are particularly afraid. Quite lately the two most important points in the Acts have been abolished, viz. compulsory periodical examination and detention in hospital of such as are found diseased. Since then we understand that there has been a very large falling off in the numbers of women presenting themselves for examination, and a corresponding increase of disease among soldiers and sailors. Another very strong case has we think been made out in favour of the Acts — most if not all the public bodies in the various towns formerly under the operation of the Acts having passed resolutions regretting the passing of Mr Stansfield's motion. It is also significant that no one voted for Mr Stansfield's motion who was connected with any place already under the Acts.

Secondly. The objections to the Contagious Diseases Acts, and some of the points wherein they have failed. The Acts fail on the other hand in their giving young men a false sense of security, since syphilis is frequently conveyed by the secretions (Lee) without our being able to discover any sores, — hence the difficulty of being able

to give a woman a clean bill of health. Inspector General Lawson in his evidence before the Select Committee (Question 1,804) says a man runs more risk of catching true syphilis in the subjected stations than in the unsubjected stations to the extent of 36 against 33! But even quite apart from such a consideration, we do not approve of any act which will legalize vice and be an inducement to young men to lead immoral lives, and give them a sense of security against disease. They render vice apparently safe, therefore they increase disease and prostitution. They seem to have had the effect of causing the young soldiers and sailors not to regard prostitution as a vice or sin on account of the government licensing it, and so the boys now go out with prostitutes which they did not used to do.

Again, with regard to Gonorrhœa, it is next to impossible to be able to say that a woman is entirely free from it, for she may have washed herself beforehand in such a way as to remove all appearance of discharge for a few hours and during inspection, and yet be the means of conveying disease a few hours afterwards. Again, such a woman may be in a condition capable of communicating disease to one man while another may escape. This leaves out of count altogether the possibility of disease being conveyed by means of 'mediate contagion', which however some authorities consider to be hardly possible. If, then, disease may be

communicated in this way, it will at once be seen that the Contagious Diseases Acts must necessarily spread disease, and it is therefore not to be wondered at that they fail almost altogether in lessening the number of cases of Gonorrhoea.
As has been already mentioned the Acts appear to be very popular in the towns which have been subjected to them, but, as they are certainly very expensive to the State, and their real usefulness still a matter of opinion, we do not think that either the fact of their being popular or unpopular should have any weight in deciding whether they should be retained or abandoned. But, as Dr. Patterson says with regard to the houses at Hong-Kong, government makes an income from the houses; it takes four dollars a month during the continuance of such license - perhaps fifty-thousand dollars a year, so that they have an interest in retaining them.
Again, the examination adds to the worth of these women, — they can earn more money when in possession of such a pass, — in fact the examination is intended for that purpose. The women also are few in number when compared with the number of their customers, and therefore they are largely made use of, and hence the risk of propagating disease is greater than it would be if there were a larger number of these 'government' women.
As seen from Harris' report, the tendency of the Acts is to keep

III. Now that the Acts have been so far repealed, what measures should be adopted to replace them.

them prostitutes for life, and the majority on leaving hospital return immediately to prostitution — a very small number entering the homes. From the same report it is seen that the proportion of venereal disease among the registered women is higher than it has been during the last ten years.

III. Now that the Acts have been so far repealed, what measures should be adopted to replace them.

We are of opinion that the success which has been attained is not worth all the trouble and expense to which the Acts give rise, and even although it might be shown to be advantageous to have them in operation in seaport towns for the sake of the soldiers and sailors, who are the chief agents in the propagation of disease, yet it would certainly be highly undesirable that they should be extended over the whole country. The non-success of the Acts or their only partial success has been made a ground for extending them all over the country as on the Continent — of state brothels and licensed prostitution. But even in these the belief is that there is more disease than here in Glasgow. While also many willingly contribute to the support of our Lock Hospital, there are few who would not complain if they were compelled to pay taxes for the support of state hospitals for the purpose of keeping prostitutes in a condition fit for the use of soldiers and sailors. No doubt some measures are necessary for controlling the spread of venereal disease not only among soldiers and sailors but also among ourselves. It

has been proposed to introduce a new bill to take the place of the abandoned portions of the Contagious Diseases Acts. It was intended to examine the women only who voluntarily consented, but if necessary compulsorily to detain them in hospital. This however has been found to be inadequate seeing that since the repeal of the Acts so far only 70 out of 1460 who were formerly examined now attend. It has therefore been thought preferable to have no legislation at all than that which would not in any way meet the evil. We are of opinion that if any good is to be done, it is only likely to succeed by some such scheme as has been adopted in Glasgow for many years where there has never been any Contagious Diseases Acts. The Police are empowered to put down brothels as much as possible, and this is even more than can be done by the Police over the C.D.A.; street solicitation is also put down, and there are now no brothels of a public kind. A very important proviso has been proposed to be inserted in one of the Clauses of a bill for the protection of young girls, 'enabling a landlord to determine a lease or other agreement relating to tenancy on its being found that the premises had been used as a brothel', and another 'that owners of property may under certain circumstances be required to give security that their premises will not be again used as brothels'.

Any one walking through the streets of Glasgow of an evening and even during broad daylight will readily notice how little of the

nature of solicitation there is as compared with such towns as Plymouth and Southampton; and there can be no doubt that when the temptation is removed young men have less encouragement to go into it than they would otherwise have. The number of professional prostitutes here is considerably smaller than in Edinburgh where this Act has not been in operation for such a length of time. By-and-by these die out or change their business or residence for want of occupation, and they are not so generally replaced as in cities where the Acts are in force, where the supply must be kept up, and is consequently being constantly renewed by innocent girls being drawn in. As a result, the facilities for young men indulging themselves become fewer, and the type of the disease is modified accordingly, or as Lancereaux puts it — "All other things being equal, syphilis rages with greater frequency in proportion as prostitution is less watched over." The Glasgow Act cannot be said to have increased clandestine prostitution, for a considerable proportion of those admitted to the Lock Hospital are undoubtedly clandestine prostitutes, and, instead of the number of admissions having increased they have diminished considerably since this Act came into operation. With the minority report of the Select Committee (1882, 378) we quite agree:- "That the ordinary law under the administration of the local police is able to effect reductions both of brothels and also of prostitutes in an unprotected place even greater in number than the decreases respectively claimed in the subjected districts is conclusively

Partial failure of Glasgow police act.

shown by the evidence of the Chief Constable of Glasgow. xxx Upon the whole then Glasgow furnishes in respect of prostitution as remarkable an example of police administration as it does of hospital operation without any of the auxiliary powers of the C.D.A., and with results more beneficial in all respects."

It might be highly beneficial we think if it could be made compulsory to close all spirit shops at an earlier hour than at present, for there can be no doubt but that many men contract disease when under the influence of drink, who would not otherwise be tempted.

With regard to the voluntary hospital system, we have to suggest that the patients should be given to understand that when they have been admitted, they cannot be allowed to leave the Hospital till dismissed cured, otherwise they cannot be re-admitted.

There can be no doubt but that within the last 2 or 3 years Glasgow has become much worse so far as prostitution is concerned than it was after the police Acts first came into operation, and this may in part be due to their being less strictly enforced than they used to be. Another point wherein it has failed consists in the construction which has been put upon the word 'dusk' by one of our magistrates. A street-night-walker may be said to be one who walks the streets at night or after dusk. In summer however there may be said to be little of dusk or night, so then no special hour having been fixed after which a street-walker might be apprehended, considerably more latitude is

Remediable Causes of prostitution

allowed them in summer than in winter, which fact they are perfectly well aware of, and so manage to evade the law. So far therefore the police act has failed.

A few points may now be noted with regard to certain causes of prostitution which might be remedied. The following may be taken as a case in point:- A servant girl takes typhus fever and is removed to Belvidere Hospital where her head is shaved. By-and-by she recovers and is dismissed well. On account of the shortness of her hair however she is unable to obtain a situation, either on account of her appearance or an idea being entertained that she may have been in prison. This leads her to adopt prostitution as a means of livelihood, and from wandering about the streets she by-and-by seeks shelter in the Lock Hospital, where she may remain till cured, being afterwards sent to the Magdalene Home. So far this case has not gone very far wrong to all appearance, but 'bad company ruins many', and during her residence in hospital she may have made the acquaintance of some others, who may have had an evil influence over her, so that instead of entering the 'Home' on leaving the Hospital, she returns to the streets and 'the last state of that girl is worse than the first'. As a remedy we would suggest that when a girl has had her head shaved or her hair cropped on account of illness or imprisonment that she should be afforded an opportunity of entering one of the 'Homes' till her hair has grown or a situation has been procured for her. In London there

VII.

On the Administration of Chloroform in the subjects of Venereal disease.

is a servants' training house which protects friendless girls who are out of situations

Another case of common occurrence may be narrated. The girl here was only 15 or 16 years of age, and used to call regularly at an office in town, where she was furnished with 1s or 1/6 for the purpose of supplying herself with 'Citizen' newspapers. After selling her papers she returned regularly with the money with which she had been provided, retaining the few coppers she had gained by the transaction. By and-by however she is discovered to be ill, and, on examination, she is found to be suffering from a bubo of absorption. We have to suggest that this selling of evening newspapers by girls should be put down, for not only does the money earned frequently go to procure drink to one or other parent, but they frequently drift from this little occupation into prostitution, and even we have found them in the street in the afternoon soliciting and screening themselves by pretending to be selling papers.

On the administration of Chloroform in the subjects of venereal disease

It may be asked by some what difference there is in the effects of Chloroform inhalation upon those who are affected with venereal disease as compared with its effects upon those who are not so affected —

Previous physical examination desirable in some cases.

Variableness of dose required.

On considering this subject one would be inclined to think that there could not possibly be any difference in its action, but experience has convinced us that there is a very great difference, and this remark applies not only to the man or woman who labours under constitutional syphilis, but also to the one who suffers from soft sores and chancroids, showing that the system, through the cerebro-spinal ganglia or otherwise, must be influenced in some way or other to cause the anaesthetic to act as it does, and equally so upon both sexes. We are at present quite unable to say by examination whether a patient is or is not a fit subject for chloroform inhalation, but in cases which are not specially urgent for operative procedure, an examination of the thoracic organs should be made in order to discover whether or not there is any special condition of lung that would render the administration specially hazardous, e.g. a patient who has suffered from pleurisy and in whom the lungs from pleuritic adhesions are not in good working order is specially liable to die from asphyxia at a very early stage of the administration if not carefully watched and the amount of vapour inhaled regulated to suit the unsatisfactory condition of lung. Patients who are suffering from venereal disease require as a rule a large dose of chloroform to produce anaesthesia, and this we are not at all surprised at, seeing that most of these people are accustomed

'Bad breathers' so called.

Circumcision.

Mode of administration.

Mr. Martin Coates' 'sabl' method.

to indulge pretty freely in alcoholic liquors, and any one who has had much experience in giving chloroform in hospital knows how obstreporous these patients are and how large a dose they require to put them under, and at the same time how much more careful watching they require than other patients. But apart from this consideration, we have found that as a rule venereal patients breathe badly, frequently requiring the chin to be depressed while the angles of the jaw are elevated, or even the tongue to be pulled out by means of catch forceps*, or even at times the entire suspension of the inhalation, and having recourse to elevating the foot of the table and the employment of artificial respiration

In no operation have we experienced more trouble and incurred more danger than in the operation of circumcision for the relief of phimosis due to the presence now or formerly of sores situated within and around the orifice of the foreskin.

In none of our operations was there anything unusual in the mode of administration of the anaesthetic, in fact it was either given in the usual way upon a towel or by the 'drop method', which latter we consider by far the safest way of administering chloroform. Wm Martin Coates, in the Lancet for Dec. 23rd, 1882, published a paper 'On the safe administration of Chloroform', and recently he has published another, giving his experience of the use of Ethidene dichloride

The 'drop' method

in the same manner. In these papers he makes no mention of particular diathesis, and accordingly his observations apply to all kinds of patients. He says that he is of opinion that Chloroform is only safe when the quantity administered is small, and for this purpose in his practice he employs a Snow's inhaler. The first dose consists of 5 minims, which is followed in 20 seconds by 10 minims more, then by 15 minims in 40 seconds, and 15 minims every minute thereafter till the patient is insensible; after this in order to maintain the anæsthesia he administers from 10 to 20 minims now and again. He does not approve of the towel or handkerchief, and we on the other hand do no approve of special apparatus as being more likely to alarm nervous patients. As we have already said the drop method is that which we prefer; and for this purpose the apparatus we use, if apparatus it may be called, consists of coarse flannel fastened upon a wire frame-work shaped so as to fit and cover the mouth and nose, but sufficiently open at each side to admit air. All the air the patient breathes is impregnated with Chloroform Vapour, which is dropped upon the flannel almost constantly. We either employ a small stoppered bottle for Chloroform or one having a perforation in the stopper, and shaped like the point

Time required to produce anaesthesia versus dose

Additional advantages.

of a glass syringe. It may perhaps be allowed that it takes longer time to get the patient put under by this method, but this is counterbalanced by the additional safety secured, as can readily be understood from the small quantity of Chloroform which is required, and this is by no means a small matter, for one often finds himself ready to commence to an operation with only a supply of 2 or 3 drams and no opportunity of having it replenished. We agree with Mr Coates that by this plan the sickness, headache, and malaise which often follow are prevented or diminished, whereas when given upon a towel more than double the amount of Chloroform is required, which is partly lost by evaporation and expiration, thus loading the atmosphere with the vapour and thereby increasing the risk. Mr Coates advises the window of the apartment to be kept open during the inhalation. In the case of a patient with a weak heart, he first gives a dose of Ether by inhalation, and 20 minims whenever at any time the pulse happens to drop.

Besides the smallness of the dose of the Chloroform which is required when it is given by the 'drop method', another important advantage consists in its causing the assistant who is administering the Chloroform to watch his patient more carefully than he would otherwise do, for, in order to maintain

Impure Chloroform.

Perseverance in the inhalation during period of excitement.

the anæsthesia, it is necessary to continue the dropping almost constantly all through the operation.

Some however may say that the troubles we experienced with our patients must have been due to the use of impure chloroform. It must be confessed that in any subject impure chloroform is a great source of danger, but, although in some cases this might have been blamed for producing the annoyance, yet the same difficulties and dangers had to be encountered when using the chloroform of the best known makers. We are of opinion that methylated chloroform should never be used for anæsthetic purposes, and even the purest alcoholic chloroform should be carefully protected from the rays of the sun by keeping it in a bottle of blue glass or covering the bottle with blue paper or gutta-percha tissue. If the chloroform be impure we are much more apt to have the patient struggling violently or during the operation becoming sick and vomiting, which are always troublesome and not altogether free from danger. If any doubt exist as to the purity of the chloroform, it may be tested by taking its specific gravity and applying the water and sulphuric acid tests.

Many who are not accustomed to the use of chloroform are apt to stop administering it when the patient begins to

Desirability of having assistance.

Sickness & Vomiting

Care and watching required afterwards.

Holmes' Surgery, 3rd edition. Vol. 3. page 618.

struggle, but this is a mistake as there is much less risk while the patient struggles than when he is absolutely quiet, and it should rather be an inducement to continue the inhalation. It is well to have assistance at hand to hold down the patient if need be, but it is a mistake to control muscular movements entirely, e.g. the assistant who holds the hand and takes charge of the pulse ought to allow the hand and arm to move backwards and forwards, but ought to prevent the patient inflicting any injury upon himself or others or removing the towel from his face. It is otherwise however when sickness and vomiting take place, and these do not often trouble us at the commencement of inhalation, but are more apt to occur during recovery from the anæsthesia; and here we may remark that the experience which we have had in the Royal Infirmary warrants us in saying that the further administration of Chloroform after the vomiting has passed off requires very great care and caution. If, in the weakly syncopic condition that attends the vomiting, a large quantity of vapour is made to be inhaled, the syncope is very apt to be aggravated and may lead to a fatal result. The renewal of the administration of the Chloroform ought to be in small quantities and its effects carefully watched.

Preparatory treatment.

Deep anaesthesia

It is useful as a rule to have the patient prepared for the operation by having the bowels cleared out the day before. Of course no food must be allowed for at least four hours previous to the operation, but it is well to give a little tea or beef tea about two hours before the operation, and in special cases where the patient is weakly or the operation one which is likely to react upon the nervous system, such for instance as castration, circumcision, or division of the sphincter ani, a little brandy may be given just before the operation with advantage. It is in cases such as these that it is now coming to be the practice to give the patient a subcutaneous injection of morphia or ether. If food be given shortly before chloroform is administered, the patient is almost sure to sicken no matter how good the chloroform may be, & it has been found to be much more difficult to produce anaesthesia than with an empty stomach. In order to avoid any risk of the patient choking during vomiting his head should be well turned to the side and his mouth pointed downwards, so as to facilitate the escape of the vomited matters.

In operations about the genital organs, the patients require to be fully anaesthetised, owing to the extreme sensitiveness of the parts.

Suffering during anaesthesia.

Improper administration of chloroform.

Most important to watch the breathing.

It is however a curious fact that patients even while under the influence of chloroform seem to suffer through the nervous system when the spermatic cord is divided, and we have also seen a similar condition at the moment of division of the sphincter ani.

But again, some might say that these accidents were due to a want of care or of knowledge on the part of the administrator of the chloroform. It is the case however that these irregularities have happened in the hands of those who were perfectly familiar with the administration of chloroform, and in no case was the chloroform given too suddenly or in too large doses. We cannot agree with those who are in favour of excluding all air till the patient has become unconscious. Air should be freely allowed with the first few respirations; the pulse should be carefully watched, and, in any case where there is not sufficient assistance, the administrator should keep his finger upon the temporal artery. The breathing must always be carefully watched, the abdomen being exposed in the male, and the thorax in the female, and in all cases attention should be paid to the colour of the lips. The pupils should be examined, and, when fully contracted, indicate along with insensibility of the cornea sufficient anaesthesia. Whenever the cornea becomes sensitive the chloroform ought to be repeated more frequently so as

Patient requires constant watching

Sneofe

to prevent the patient coming out of it during the performance of the operation, for some patients require and will bear much more chloroform than others. As a rule when the eyeballs become insensible to touch, they also turn upwards and the eyes become suffused. The face is usually flushed, but it may be pale. This pallor may be an indication of syncope, but is not of much consequence so long as the red colour of the lips is retained. The patient must never be raised during the administration of the chloroform.

There is no doubt but that many cases go wrong for want of being properly watched, and occasionally assistants are apt to pay more attention to the operation than to the patient, but in no case should he be permitted to take his eye off his patient for one minute. No doubt the onset of stertorous breathing is sufficient to turn his attention to the patient, causing him to stop the inhalation, but this warning is not always given, & requires to be carefully distinguished from <u>snoring</u> breathing. In most cases whether the patient be syphilitic or not the danger is usually at an early period of the administration, sometimes even before the cloth has been over the patients face for a minute, and when we would be inclined to think that the patient had hardly had time to have inhaled a sufficient quantity of chloroform to produce death. The danger here is from syncope or cardiac shock which occasionally occurred during the performance of

Laryngeal Spasm and Asphyxia

Deceitful appearance of breathing.

Proper ventilation of apartment

Directions in cases where breathing is suspended.

circumcision and similar operations prior to the discovery and employment of chloroform. Other patients again are hysterical and laryngeal spasm or asphyxia is the most likely cause of death. In any of the above cases, the chloroform should be immediately removed, the tongue seized by artery forceps, pulled well out and wriggled so as to produce reflex action and thereby relieve spasm. If necessary the finger may be pushed down to the glottis. In less urgent cases as when the tongue merely falls backwards, the obstruction to the breathing may be relieved without having recourse to the practice of pulling out the tongue, by depressing the chin with both thumbs and at the same time elevating the angles of the jaws with the other fingers. It is of the greatest importance to notice in all cases whether or no the breathing is really going on, for there are times when the tongue falls back preventing the free entrance of air into the lungs and yet the breathing appears to be going on as usual when in reality no air is entering the lungs at all. It is always well to admit air freely into the apartment & this is more especially called for whenever a patient gives any trouble with his breathing, and it is important not to allow too many assistants to stand around the patient. Should the patient not breathe satisfactorily even after the tongue has

Patients require to be watched till insensibility has quite passed off.

Anaesthesia in drunkards.

Anaesthesia in weakly & nervous subjects.

been pulled out and wriggled, a cold wet towel should be dashed over the chest and Sylvester's method of performing artificial respiration may be commenced, while at the same time the foot of the table may be elevated so as to allow of blood getting freely into the heart. Quite recently we had occasion to apply the actual cautery along each side of the spine of a boy who is suffering from spinal caries. Previous to administering chloroform it was ascertained that he had an exceedingly feeble heart. Notwithstanding this the operation was satisfactorily performed, but, just as the dressings were being applied, he ceased breathing and we were of opinion that he was dead. However, as the cautery was not yet quite cold, it was re-applied with the result of causing him to cry out loudly. It is highly important not to leave any patient till he has completely recovered from the anaesthetic, and his friends ought to be cautioned against allowing him to fall asleep till a considerable time has elapsed since the operation.

Drunkards are bad subjects for chloroform, and as a rule two or three assistants are required to keep them down during the period of excitement, although we generally find that they very soon become completely insensible after the excitement has subsided, and it is then that they require to be carefully watched.

Chloroform should not be pushed in weakly and nervous subjects, as their blood soon gets saturated with the vapour, and here we

Importance of having ample assistance.

Faults to be avoided during administration of anæsthetic.

VIII

A description of Paquelin's Thermo-Cautery.

might remark that it would be at all times safer never to administer chloroform unless the assistance is ample and skilled, so that any difficulty that may arise may be successfully coped with.

Talking should be avoided especially when dealing with nervous subjects, as they are apt to strain their ears to hear what they suppose is being said about them and so are longer of going over. For obvious reasons anaesthetics should never be given to females unless in the presence of an assistant or nurse.

A description of the Thermo-Cautery. (Paquelin's).

The Cautery to be described is known by the name of Dr Paquelin's Thermo-Cautery, and the following description of it may be considered as a translation of his paper on the subject, with the addition of a few notes at the end taken from observations in hospital and private practice.

Definition. "This instrument is an actual Cautery with constant and controllable heat, with very feeble radiation, favouring by the variety of its forms all the requirements of this department of surgery."

Account of its origin. "Certain metals of which platinum is a type have the property of condensing vapours and gases in large

quantity, a property which they show with much more energy the more they are diffused and heated."

"Let a hollow piece of platinum, with a small partition be heated to a dull-red heat."

"If into this hollow, we project simultaneously, by means of a bellows at a fixed distance, and under varied pressure, two collections of gas, capable of combining, with the development of bright-heat, e.g. pure hydrogen or carburetted hydrogen (gas for lighting) and atmospheric air, here is what we observe:

1st Instantaneous white heat of the platinum at the point of reaching of the two forms of gas.

2nd Immediate propagation of the white heat to the whole mass of the metal.

3rd. Continuation of the white heat during the continuance of the use of the gas.

4th Complete disappearance of the white heat on discontinuing for some seconds, and spontaneous return of the platinum to a white heat under the influence of a new supply of gases.

5th Gradual augmentation of the white heat as soon as the body of gases comes under strong pressure, in contact with the condensing metal."

"The amount of heat developed by this mode of combustion can be elevated to higher temperatures."

I.

The Cautery.

Various forms of Cautery.

"This experiment is altogether a demonstration of the condensing power of platinum, and a complete exposition of the principle by which Paquelin's cautery is constructed."

"Description :- In the description of this instrument we have to consider the structure of the cautery; the combustible agents which go to maintain the bright heat; and the manner of heating."

I. "Of the Cautery. This instrument as constructed by M. Collin is composed of three parts :- of the cautery so called; of a blow-pipe and spirit lamp; of a piece of tubing"-

"The Cautery is formed of five separate pieces, which are: a thick caoutchouc tube; a flask or reservoir for the combustible substance; two tubes; and a small bellows with double valves. These different pieces are united in the order in which they have been enumerated"-

"The burning-point. This is a hollow body made of a blade of platinum without solder, appearing like the end of an ordinary actual cautery, in place of which it stands, of varied forms, (the shape of a ball, an olive, a mushroom, a cone, a cylinder, a sharp point, the blade of a knife, and of scissors, straight or curved, with a sharp or blunt edge, &c &c). This is the principal part of the cautery; it is the cautery properly so called. It is fixed edge to edge on a tube of another metal (Copper nickel), which is pierced with

II.

The Caoutchouc tube.

III.

The Reservoir for the combustible substance.

holes nearly to the extremity for the passage of the product of combustion; these two pieces thus adjusted forming a sort of lengthened metallic chamber closed at one end, open at the other. In the length of this chamber, of which the size is according to the special use of the cautery, a metallic tube runs extending some millimetres through the perforated extremity, ending in a strong screw. In the cauteries of the form of scissors, the screw at the end of this inside tube is replaced by a conical enlargement called a <u>teton</u>."

"The wooden perforated handle, supplied with a screw at one of its extremities, is traversed in all its length by a metallic tube which is prolonged some millimetres at each end." ×××

2. "<u>The Caoutchouc tube</u> serves the purpose of union between the cautery and the reservoir for the combustible material. By one of its ends it is fixed to the end of the handle of the cautery, by the other to the external extremity of a tube which dips into the reservoir for the combustible substance."

3. "<u>The Combustible reservoir</u>. This flask is closed by a caoutchouc cork, which is pierced by two metallic tubes, united in their lower half, diverging in their upper half, both terminating together at their divergent extremities. At the end, one of these tubes is fixed as we have already said to one of the ends of the thick caoutchouc tubing; the end of

IV.

The Bellows.

V.

Blow-pipe and Spirit-lamp.

VI

The Combustible substance.

the other tube is fixed to the tube with the bellows. A hook is fixed at the end of the receiver, which permits of its suspension by a button to the dress or to the brim of the pocket."

"The Valve is a patent of Richardson's. The caoutchouc tube fixed to the valved ball is fixed to the end of one of the tubes of the reservoir for the combustible material. This bellows of which the pressure is equal to the quickness & fulness of the movements which are made has to be managed by an assistant. Meanwhile with very slow movements, (cauterization of the neck of the uterus for example) the operator executes the movements himself by pressing the valved ball with his foot or between his knees. This is for the purpose of forcing air into the reservoir of the combustible material, which it draws up directly from the atmosphere, and mingles with the combustible element, which is there contained, projecting it up to the end of the cautery where the gases mingle and are decomposed."

"Blow-pipe and Spirit-lamp. At the neck of this lamp an upright stem rises, having a transverse pipe reaching to the top of the wick of the lamp, the external extremity of which ends in an opening."

"The Combustible material. This is a volatile hydro carbon liquid, composed of light gas in a liquid state. It is contained

Directions for using the Cautery.

in the bottle described above. The vapours of certain liquids - volatile hydrocarbons - form with the air a mixture of gases of which the two elements can, under certain conditions combine with the development of a white heat, in contact with divided platinum, previously heated to a red heat. Of these hydrocarbons, of which some (alcohol, spirit of wood, ether,) belong to the oxygenated group, and the others (benzine, mineral essence,) to the group of non-oxygenated hydro-carbons, mineral essence is by experience that which offers for the purposes for which it is required the chief advantages. Mineral essence is a product very widely distributed in commerce, and this accounts for its extensive use. ×× It is not a definite body, but a mixture of several non-oxygenated hydrocarbons of different degrees of volatility, the composition of which we have to estimate. ×××

<u>Manner of using the Cautery.</u> The different pieces of the cautery being arranged as we have indicated, the mineral essence not occupying at most a third of the capacity of the reservoir, this essence weighing a minimum of 700 and a maximum of 720, the caoutchouc cork being firmly fixed in the neck of the flask, heat the platinum extremity of the cautery in the flame of the spirit-lamp (or of a gas burner) <u>without playing the bellows,</u> so that this extremity becomes very red, let it be so held for hardly

"Very important additional instructions concerning the proper maintainance of the apparatus and the means of repairing in case of derangement or of accident."

a minute. Then blow softly so that the Cautery may retain the red heat; this temperature being attained, withdraw the Cautery from the flame, the red heat is maintained, and we can hereafter, according to our wish, keep up a uniform speed and fulness of movement while blowing, so that it is kept at a constant degree of heat, so that the temperature may be increased or diminished; in one word, the heat of the Cautery may be accomodated to the requirements of the operation."

"The Cauteries with small points or in the form of a small knife have this peculiarity about them, that it is necessary to heat the mixed gases under a certain pressure, so that a relatively feeble pressure will suffice to heat the Cauteries to a focus for ordinary use, unless a very high temperature be necessary."

"The pressure of the mixed gases is directly proportionate to the speed and fulness of the movement of the bellows."

"These instructions have reference to

1st The point of Combustion.

2nd The Combustible reservoir.

3rd The mineral essence.

4th The bellows.

5th The union of the platinum with the flame of the spirit-lamp.

I.

1. As to the lighting of the Cautery.

2. Cleansing of the Cautery.

3. Putting out of the Cautery.

4. Overheating of the Cautery to be avoided.

6th. To all these combined.

7th. The blow-pipe of the lamp.

"1st. The surgeon ought to light his cautery himself or to entrust it to the care of an assistant.

2nd. After each operation clean the cautery inside and outside. To clean the inside, the operation being ended, having allowed the cautery to go out, bring it to a red heat by means of rapid inflations; try, while it is at a white heat, to separate suddenly the handle from the caoutchouc tube, which is connected with the combustible reservoir."

"At low temperatures, the combustion of the mineral essence is incomplete, and, when extinguished, some particles of carbon accumulating, oppose ultimately the heating of the platinum."

"To clean the outside. The cautery having cooled, rub the end lightly with linen. Thus it will be cleared of minerals with which it is encrusted, while passing over the tissues and liquids of the body, and whose presence would hinder the lighting of the point."

"3rd. To put out the cautery, never put it in cold water; leave it to become cold in the open air."

"4th. Avoid heating the cautery up to a white-heat. This high temperature if maintained for some time would melt the interior of the burning point."

5. Importance of having an extra cautery point.

6. Directions to be observed when the heat goes down.

II. 1. The reservoir for the combustible substance.
The bottle ought to be fixed.

2. Directions in case of accident.

3. Liquid contact of the cork with the benzole.

4. If the bottle should get broken it ought to be replaced.

"5th. The Surgeon, in case of unforeseen accident, ought to have in his case two Cautery points in the shape of knives — This is the form of Cautery which is useful for the largest number of operations."

"6th. If, in the course of an operation, the heat of the Cautery becomes deficient, increase meanwhile the combustion by more rapid inflations, as is necessary for the operation, to clean the internal surface of the combustible point. if need be heat the cautery for some seconds in the flame of the spirit-lamp".

"II. 1st. The Combustible reservoir.

The bottle containing the essence ought to be fixed by the operator or in some way so that it may not be upset during an operation."

"2nd. If, the apparatus being set in order, and the cautery being cold, this accident be produced, it is necessary after using the instrument, to dry the cautery with great care in all its extent. For this purpose, blow the air with the bellows."

"3rd. Avoid contact of the Caoutchouc stopper with the essence. The essence dissolves the Caoutchouc, and the presence of this body in the mixed gases hinders the heat of the Cautery."

"4th. The flask if it should happen to get broken ought to be replaced by one of almost the same dimensions, that is to say

III. The Essence.

1. The bottle should not be more than 1/3 full.

2. The temperature of the essence.

3. Avoid exposure of the essence to the rays of the sun.

of almost the same height and the same breadth.

III. The Essence.

1st The combustible essence ought not to occupy more than a third of the capacity of the reservoir for these three reasons:—

(a) The pressure exercised at certain intervals by the bellows on the surface of the liquid is necessary: if the flask were too full it would project this liquid into the caoutchouc tube which goes from the reservoir to the point of combustion.

(b) A small quantity of the essence in a suitable flask suffices to keep up for some time the heat of the cantern — with a supply of 30 grammes, the cantern can be kept up for something less than an hour.

(c) We can only use a part of the supply of the combustible material.

2nd The temperature of the essence during the operation ought not to be less than 15 or 20 degrees centigrade. A convenient temperature may be given to the essence and maintained by applying the hand round the flask or by putting it in the vest pocket in direct contact with the body from the commencement till the end of the operation or at intervals only.

××× 3rd Always avoid exposing the liquid to the direct rays of the sun. If the essence be too hot, this will oppose the brightness of the cantern.

4. The essence should be frequently renewed.

5. Directions for procuring a supply of the essence.

IV. The Bellows.

1. Mode of use so as to obtain a low temperature.

2. Mode of use so as to obtain a high temperature.

4th. At each operation renew the supply of the reservoir, or at least renew it often. The mineral essence is a mixture of light and heavy oils. The volatile parts of this oil being raised by the current of air from the bellows, a part remains unused. At the moment this essence is ended it ought to be volatile enough to maintain the heat of the Cautery.

5th. Buy the essence by the litre and make sure as to its quality. At the temperature of 15°C. the essence marks a density in petroleum of 700 to 720, i.e. weighed by the litre of 700 to 720 grammes.

IV. Of the bellows.

The bellows is the means of regulating the Cautery.

1st. To light the Cautery so as to obtain the lowest temperature (except in the case of Cauteries with small points) work very gently with the bellows; in general, it is not necessary to work the bellows hard.

2nd. In order to obtain a high temperature, avoid pressing too quickly and too fully on the bellows so as to distend immoderately the bellows' ball; stop the play for a moment whenever the ball completely fills the silk twist which envelopes it: do not go beyond that. The increased size of this ball will have the effect of forcing very briskly the unused

3. To be worked by a trained assistant.

4. To be replaced when out of order.

V. Of the Contact of the platinum with the flame of the spirit-lamp.

1. Relation of the platinum to the flame.

2. Purity of the spirit.

VI. Important to have the entire apparatus in good working order.

VII. The blow-pipe connected with the spirit-lamp.

gases in the flask or of making the caoutchouc stopper jump up or of raising the cautery to a much more elevated temperature.

3rd. The bellows ought to be entrusted as much as possible to a trained assistant.

4th. In case of need the bellows ought to be replaced by a chimney bellows.

V. Of the contact of the platinum with the flame of the spirit-lamp.

1st. Place the extremity of the platinum in the lateral parts of the flame at the level of the middle of this flame. Here it is that there is most heat.

2nd. The alcohol of the lamp ought not to be adulterated with saline matters. An alcohol containing saline matters might while burning in contact with the flame form at the surface of this metal a platinic compound, which would oppose the brightness of the cautery. In certain hospitals this alcohol containing salt is used so as to prevent the patients from making use of it for themselves.

VI. Of the whole of the apparatus.

On the evening before or on the morning of an operation the surgeon ought to try his instrument. (Vernueil).

VII. Of the blow-pipe of the spirit-lamp.

1. Use of the blow-pipe for heating the cautery -

2. It may be necessary to re-heat the Cautery.

<u>Resume</u> of the different causes which may oppose the action of the Cautery. 1. When the Cautery does not become red.

1st. If it happen that having followed exactly the preceding instructions, we cannot heat the cautery, we should put it into good order by heating it to a red heat for two or three minutes by the end of the blow-pipe annexed to the stem of the lamp taking care to follow the instructions of fig. 3 so that the central tube may not be melted. For this purpose take care to flatten the wick of the lamp in the form of a star in such a manner as to give it as large a surface as possible.

2nd. Heat now and then the cautery at the flame of the lamp. The flame increases the condensing power of the platinum, but when one has ceased to heat it for a time, this property is lost by which the heat reaches it.

The following points have to be considered.

1st. The cautery does not become red. The causes are (the probable causes are underlined), the platinum has not been sufficiently heated at the lamp: the mixed gases arrive at the point with too much pressure: the alcohol of the lamp contains saline matters: the cautery has not been cleansed: the central tube of the point is melted: the central tube of the handle is obstructed: the essence contains caoutchouc in solution: the essence is too cold: the essence is too poor, not having been renewed in time: the essence having been exposed to the direct

2. Too strong pressure with the bellows causes the cautery not to become red.

3. The essence is useless when the cautery goes out after it has been red-hot.

4. The cautery burns in the form of a flame.

Resumé of the advantages of the cautery.

rays of the sun

2nd. The Cautery does not redden on account of too strong pressure with the bellows. This is the rule for canteres with a small point; When the points of the Cautery are of the ordinary size the Essence is too cold or too poor.

3rd. The Cautery goes out after having been red for a longer or shorter time. This is due to the essence being too cold or too poor.

4th When the cautery has been arranged and the gases in place of heating the platinum burn in the form of a flame at the opening of the point. Causes - The platinum has not been sufficiently heated over the lamp; the movements of the bellows are too quick; the essence has been exposed to the direct action of the sun's rays -

The heat of this instrument is constant. The operator can heat it in a few seconds to such a degree of heat as he desires; at will raising or lowering instantly the temperature or maintaining it at a degree of constant heat.

It goes over the liquids and organic tissues without going out.

It expends very little (with this instrument we can burn the hairs on the back of the hand and scarcely feel the heat)

It can by a variety of forms serve all the purposes of thermal

Uses.

1. To Coagulate blood.

2. Eschars.

surgery.

It works very regularly.

It is easily managed. (In less than a quarter of an hour we can learn how to manage it.)

It is with its accessories of small volume. The combustible which keeps it up can be procured everywhere. It does not expend more than a centime per hour.

Two Surgical uses:—

I. 1st. To coagulate blood, first operate at a dull-red heat; that is the best heat for haemostatic purposes.

2nd. When operating in a very vascular region or one wrinkled by very large blood vessels, traction should be avoided and the tissues should be compressed and divided slowly.

3rd. In certain cases, constriction, (string, iron wire, elastic band) or crushing assists advantageously the haemostatic action (as well as antiseptic) of the heat.

II. Eschars. To avoid sensible loss of substance.

1st. Operate with a dull-red heat and let the instrument be a shorter time in contact with the tissues, that is to say, operate with a light hand, with gentle strokes, by jerks, while cutting.

2nd. Draw upon the skin on each side of the line of section.

Various forms of Cautery.

Notes on the Thermo-Cautery.

Useful for touching soft and sloughing sores—

3rd. Do not divide the skin with the flame.

4th. When operating in a cavity, such as the vagina or the orbital cavity, moisten from time to time the tissues with cold water. (Gosselin).

The varieties of Paquelin's Cautery in most general use are:—

1. The knife cautery.
2. Cylindro-conical cautery.
3. Small knife for superficial and delicate operations.
4. Ignipuncture point.
5. Very fine point for erectile tumours.
6. Cautery bent at a right angle, having a very fine point.
7. Cautery bent, having its greatest diameter transverse, for amputation of the neck of the uterus.
8. Bent cautery with a small transverse diameter.
9. Scissors, straight and bent, of which one blade is of nickel-steel and is used cold.

The above description of the Thermo-Cautery is so complete that little more needs to be said regarding it, but a few notes may now be added from observations in hospital and private practice.

We have found the thermo-cautery useful for touching soft sores with in any situation as well as sloughing sores of the penis with the view of setting up healthy action in the parts. It is a

Useful to apply to soft sores previous to performing Circumcision.

Tracheotomy.

Warts and Condylomata.

Enlarged Carunculæ Myrtiformes.

good plan also in the operation of circumcision to touch any soft sores which may be upon the neighbouring parts so as to prevent infection of the cut or raw surfaces, but we do not approve of cutting the foreskin through with the cautery, for although some may claim for it the advantage of doing away with the risk of haemorrhage, this is more than counterbalanced by the amount of edema which it occasions being considerable.

Tracheotomy is performed with much more comfort by the Thermo-Cautery than by the knife, for we have no haemorrhage to speak of, and therefore a good view of the parts can be obtained. It is better however to use the knife for cutting through the skin and rings of the trachea, but notwithstanding this precaution considerable swelling and suppuration are occasionally set up.

The Cylindro-Conical (No 2) cautery is that which will be found to be most useful for applying to warts and condylomata. In some cases it may be preferable to remove these by means of the knife in the first instance and applying the cautery only to such as are not readily removed by the knife and the other raw surfaces. This stops bleeding and helps to prevent a return of the growths, while the raw surfaces are left to granulate. After such operations it is useful to give ½ gr morphia suppository.

No 3 variety may be used for the removal of enlarged and irritable carunculæ myrtiformes, or else an ordinary knife or

Cautery Scissors –

curved scissors may be used in the first instance, although it is always desirable to apply the cautery so as to prevent any risk of haemorrhage as well as to burn away any small growth which may remain after the use of the knife. The parts in this neighbourhood are so vascular that they are very apt to give annoyance if this be not done even although a plug be inserted. Scissors (No. 9) cannot be said to be very useful for removing warts, condylomata, or carunculae myrtiformes. They very easily get clogged up especially if the growths be at all numerous, and, as it is necessary before they can be cleaned to allow the flame to go out, considerable annoyance and inconvenience are occasioned. The caoutchouc tubing also does not adhere well to the handle of the scissors, and so is apt to drop off in the middle of an operation, and requires to be re-heated before the operation can be again proceeded with. Besides as a rule they do not retain the heat so long and so well as the common points, and require much more constant and vigorous blowing than the others. However for removing pedunculated piles instead of by abscission or ligature they are very useful, because as a rule these are not very numerous. In dealing with internal piles however we have found the Thermo-cautery to fail in arresting haemorrhage after their removal by the knife, and secondary haemorrhage is even apt to occur, so that it is far inferior to the old plan

Onychia.

Lupus-

Spinal irritation.

Local anæsthesia by ether spray.

of ligaturing.
After the removal of nails in cases of onychia, it is often useful to apply the Thermo-Cautery both with the view of arresting hæmorrhage and also for causing healthy action to be set up in the tissues underneath.
We have used this instrument with much benefit in the treatment of Lupus, which is known to be often due to inherited syphilis. The Thermo-Cautery has a much more powerful effect upon Lupoid disease than Nitrate of Silver or the Acid Nitrate of Mercury in establishing a new action in the parts.
We have also used it (No 2) in cases of spinal irritation with much benefit. In these cases it should be applied upon each side of the spine from top to bottom as the case may seem to require. In this and all these other operations already mentioned the patient should be well under the influence of chloroform, although in a few cases such as the one last mentioned the parts may first be frozen and chloroform may thus be in a great measure dispensed with. Here however it is necessary that great care be taken not to allow any of the ether to run down the patient's sides and carefully to dry the skin before applying the cautery, otherwise the ether is very apt.

The benzole may take fire.

Conflagration from use of Thermo-Cautery during Anaesthesia from Ether. (Journal de Médicine et de Chirurgie Pratiques, Octr. 1879. M. Poncet, de Lyons.) Brit. Med. Jour. 22.11.79. p826.

to take fire and the patient may be severely burnt.
In the British Medical Journal for Nov. 22. 1879. page 826 the following case is noted:- "Haemorrhoids were anaesthetized before cauterizing with the red-hot iron. The spray was suspended, the red-hot cautery was applied, but dense ether vapour took fire. The haemorrhoids were not affected, but the patient was burnt severely and also the hands of assistants."
We have seen much alarm and excitement caused by the benzole igniting during an operation. This was due to the assistant not paying attention to keep the bottle containing the Benzole horizontal and thereby allowing the Benzole to run along the tube to the red hot point.
In the same way it is important when using the cautery to give Chloroform and not ether for the red point is very apt to cause the Ether to take fire. Of this the following case is a good illustration:- "Suddenly" it is said "the room was in flames and the bed enveloped in them. A large quantity of Ether had been given. The Doctor had his hands severely burned." From experiments made by M. M. Cazeneuve and Poncet it appears that the accident cannot happen with the Thermo-Cautery heated to red heat. Metal heated to this point is extinguished in ether and forms aldehyde. But when the metal is heated to white-heat, such an occurrence

Fistula-in-Ano

The Thermo-Cautery and Therm-Antidote.
Medical and Surgical Reporter. 27th Septr. 1879.

may take place. Great care is therefore required and it is necessary not to allow any rise in the temperature of the cautery. It is wiser to abstain from anæsthesia by ether whenever artificial light or red hot platinum or iron is essential to the operation."

The thermo-cautery may also be used in the division of fistula-in-ano, but has no advantage over the knife.

In general it is well to cut the skin with the knife so as to make a cleaner edge than can be got by means of the cautery. "Dr. H. P. C. Wilson has devised an instrument, which he names the therm-antidote, designed to protect the soft parts adjacent to the point of operation when the thermo-cautery is employed in deep cavities such as the mouth, rectum, vagina, abdomen. It is a hollow cylinder of German-silver, 5 1/4 inches long, and sufficiently wide to allow the shafts of Paquelin's knives to slip easily into it. On its upper surface, for its whole length, is a fenestrum, which permits the insertion of a curved knife. Dr. W. adds the following rules:- The bottle should never be more than 2/3 full, otherwise the slightest tilt will cause the liquid to flow down the tube attached to the cautery, when patient, operator, and assistant may be set on fire; or a little more air forced into the bottle when too full might lift the benzine into the tube by atmospheric pressure and

Hinderances to the working of the Cautery.

cause the accident. The benzine bottle should never be hung to the operator's clothing or put into his pocket; it should be in the hands of a trained assistant. The blade of the knife should never be heated too hot; a dull-red heat is best and this redness should never extend above one-third of the blade. When done using the knife it should be made a little extra hot and quickly separated from the wooden handle; this prevents a deposit of carbon on the knife. If the knife be injudiciously heated the platinum gauze within the blade is burnt up, and the apparatus rendered useless. The operator should be provided with a small metallic brush, with which to cleanse the blade of all burning tissue which adheres to it at each incision."

On account of the want of such an addition to the Thermo-Cautery as Dr. Wilson has devised, we remember to have seen a man get his tongue and lips burnt upon whose palate it was being applied for tertiary syphilitic disease.

In concluding this article we would make a few remarks upon some of the hindrances to the proper working of the Thermo-Cautery.

We have on one or two occasions found that the cautery could not be used owing to the valves having got out of order; and should there be an escape of air at the tube which con-

nects the two balls it may either act badly or not at all.

In the case of it not working well with slow and steady movements, we should try the effect of full and rapid ones - The foot may be used when the hand becomes tired or is otherwise engaged.

The Benzole may be of inferior quality or deficient or excessive in quantity -

We remember of seeing the Cautery fail to act owing to the bottle containing the Benzole having been placed upon the floor and capsized, thus allowing the Benzole to run along the tube, & saturating and destroying it.)

Our high opinion of the Thermo-Cautery has caused us to devote more attention to it than some may think it deserves, but, when one has thoroughly studied the working of the instrument and made use of it in operations such as we have just mentioned, it is then that he places a value upon it. It must however be confessed that unless it has the right man at the end of it it is far better to dispense with it altogether than to run the risk of encountering any of the accidents related above.

Wm Tindal.
11th October, 188[illegible]