the doses, I now add to each separate quantity of ipecacuan wine or other vehicle, the exact number of drops of chloroform necessary for the dose, and thus avoid the uncertainty which must attend a careless or imperfect mixture of the ingredients. Chloroform possesses one great advantage over most medicines; children do not dislike its taste, and properly mixed, they will take it readily.

In some cases of hysterical spasmodic cough, seen by Dr. Andrew Wood, and reported to the Medico-Chirurgical Society of Edinburgh in March last, he administered chloroform with success; I am not sufficiently satisfied of the distinctive character of whooping cough to think that a remedy successful in the one case might not be so in the other. Considering uncomplicated whooping cough to partake more of a spasmodic than of any other nature, I hold the general indications of treatment to be:—

To relieve or prevent the spasmodic paroxysms: this will be most effectually done by the internal use of chloroform.

To remove any obstruction collecting in the air passages by the use of occasional emetics, of which ipecacuan wine is the best.

To support the system under the weakening effects of the disease.

Having lately seen and in this manner treated a large number of cases of this disease, I consider myself justified in bearing my testimony to the good results obtained. It is sad, indeed, to witness young creatures in the severity of the paroxysms without being able to propose any measure of relief; for, as generally treated, the disease is an *opprobrium medicorum*. If others will give their experience of the chloroform treatment, for doubtless many have tried it, or will give it a chance if not already tried, we may, perhaps, arrive at a more decided plan of managing a disease which has hitherto helped in no slight degree to swell our bills of mortality.

New Buckle, November 1854.

A PATHOLOGICAL INQUIRY INTO THE EFFECTS OF SYPHILIS UPON THE UTERINE ORGANS.

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[Read before the Royal Medical and Chirurgical Society, June 13th, 1854.]

[Continued from page 1036.]

Passing from the subject of functional disorders of the uterus, I proceed to point out the structural lesions of the cervix which were met with in the course of this inquiry; and here it should be observed that no commemorative data exist, by which we are enabled to determine their exact relations to syphilis as distinguished from other causes, inasmuch as we have no means of ascertaining whether they had supervened upon or existed antecedently to infection. This question, therefore, will have to be decided by other means; and, in the meantime, it will be convenient to consider them as they respectively affect the mucous membrane and the body of the cervix, the former comprising more particularly lesions of the vascularity and integrity of the cervical mucous membrane, the latter hypertrophy and induration of the body of the cervix.

V. LESIONS OF THE MUCOUS MEMBRANE OF THE CERVIX UTERI.

a. Lesions of Vascularity. Of the eighty cases, in thirty-four the mucous membrane of the cervix was preternaturally red, either partially or generally. In forty, it was of a light or pale red colour; in six, the colour is not noted; and in twelve, it was either papular, aphthous, or warty. Of these, in six, or one-half, the mucous membrane was abnormally red or vascular; and in the remainder, of its ordinary pale salmon or rose colour.

The social condition of the thirty-four persons in whom the mucous membrane of the cervix was abnormally vascular or red, is as follows: six were married, and twenty-five were single; in three, this circumstance is not noted.

Whilst, then, it would appear that, in a large proportion of cases of syphilis occurring in the female, amounting to nearly one-half, abnormal redness or vascularity of the mucous membrane of the cervix is met with, whatever may be the social condition of the patients, I feel that considerable caution is necessary in deducing any inference from this fact. I am far from believing that we are as yet in a position to determine the limits beyond which this appearance is abnormal. The varying physiological conditions of the uterus, the periodical determination of blood to this organ, and its peculiar sensibilities and functions, all point to the probability that considerable variations from any given standard, in regard to colour or vascularity, may occur within the strict physiological limits of health. It is not, however, the province of this paper to enter upon, much less to discuss, these questions: it is rather my object to indicate things as they are, and to record as accurately as possible the phenomena of disease as I have met with them; leaving it for further investigators to reconcile them, to account for them, and to estimate their real value, as compared with former observations, or preconceived hypotheses or opinions.

b. Lesions of Integrity of the Mucous Membrane of the Cervix. In forty-eight cases, some abrasion, excoriation, or ulceration of this membrane, existed; whilst, in thirty-two, there was none, and it is reported to have been smooth, and free from any such appearances.

With regard to the character of these lesions, it may be observed that, with four exceptions, they appeared in the form of superficial abrasions or excoriations extending variously over the cervix, from the os uteri as their centre. In some, they were little more than a line in diameter; in others, they were extensively diffused over the cervical mucous membrane, having sometimes a granular fungous-looking surface, but seldom any well-defined margin. In this respect, they differed from ordinary ulcerations, and corresponded rather with abrasions or excoriations caused by an abnormal shedding of the epithelial cells of the part. In four cases, however, the appearances were somewhat exceptional. In one, there was a chancrous-looking sore, having defined edges, seated on the cervix, to the right of the os uteri; in a second, there were two well-defined superficial ulcers on the cervix, each having a yellowish dirty-looking base; in a third, there was a small granular-looking sore posterior to the os uteri; and, in a fourth, there were several aphthous-looking spots and excoriations on the cervix. I am unable to reconcile these exceptional appearances with any particular form or type of syphilitic disease.

The social condition of the forty-eight persons in whom these abnormalities were met with is as follows: eighteen were married, and twenty-seven were single; whilst in three no record is made of the circumstance.

With reference to the pathological relations of these lesions to syphilis, I have already observed that their histories afford no specific data for determining this question, inasmuch as it was impossible to learn whether they had existed before, or had supervened upon syphilitic infection. We must therefore seek to determine it by some other means, and more particularly by comparing the relative frequency of these lesions, as met with in syphilis, with their frequency as met with in other diseases; and, adopting this course, we obtain the strongest grounds for believing that the lesions met with in these cases were specifically of syphilitic origin. The admirable researches of Louis on phthisis comprehend an inquiry into the state of the uterine organs in each case; and he states that, except in respect of dimensions, the condition of these organs, in persons who had died of this disease, was almost always natural. He found the uterus generally smaller than natural; but, even where there had been considerable irregularity in the menstrual function during life, it was found,

with this exception, to be perfectly healthy. Throughout the whole of his work, no reference is made to the existence of vascular disease or ulceration of the cervix; and, bearing in mind his great accuracy of observation, and fidelity in recording morbid phenomena, we are compelled to conclude that in phthisis at least these lesions do not commonly exist, or, at all events, by no means to the extent to which they are met with in syphilis. An excellent paper by Mr. George Pollock, read before the Royal Medical and Chirurgical Society in January 1852, serves also to throw considerable light upon the subject. He records that, of five hundred and eighty-three women who had died of various diseases, in two hundred and sixty-five some disease of the uterine organs was met with, and yet in only twenty-three of these was the mucous membrane of the uterus, cervix, or os, found to be diseased or altered. Of seven hundred and eight cases of persons also dying of various diseases, of whom the uterine organs had been examined by Dr. Boyd, of the Marylebone Infirmary, in thirteen only was there congestion or inflammation of the uterus present. Dr. Allen, of the same institution, and Mr. Prescott Hewett, of St. George's Hospital, have also investigated the condition of the uterine organs in a large number of persons dying of various diseases; and they respectively concur in the statement that these lesions of the cervix were rarely met with. Now, if we consider these facts, and compare the infrequency of these lesions in the case of persons dying of other diseases with their frequency in cases of syphilis, amounting to sixty per cent., we derive a strong argument from the comparison in favour of their syphilitic nature in the latter.

It might, however, be contended that, if these lesions were of syphilitic origin, they should possess specific characters, by which alone their nature might be recognised. I am very far, however, from being able to assent to this doctrine. We know too little of the nature and laws of the syphilitic poison to be able thus to argue from *a priori* considerations. The relations of morbid conditions of the cervix generally to syphilis have as yet been but imperfectly determined; and if it be true, as I strongly suspect, that the uterine organs extensively and specifically suffer from the constitutional actions of syphilis—as much so as either the throat, the skin, or the periosteum—then it appears to me unreasonable to expect that such constitutional or secondary affections should possess the specific characters of primary lesions. But further, as regards primary sores, I would inquire whether, with the exception of the Hunterian, their physical characters are in all cases so strongly marked as to justify our founding a diagnosis exclusively upon them? Do the manifold forms of inflammation of the throat, having undoubtedly a syphilitic origin, admit in all cases of a physical diagnosis? and is it not true that many papular, erythematous, and scaly eruptions of the skin, of a syphilitic nature, present themselves sometimes with characters so dimly marked as to render their nature, judged of from appearances, extremely uncertain? Now, if this be true in regard to lesions so easy of recognition, and which have so long engaged the attention of medical men, how much more difficult must it be to determine from appearances the nature of lesions which are not readily discernible, and which have not hitherto received a large share of professional attention. In such case, it appears to me most prudent to observe facts carefully, and to generalise cautiously; not blindly to adhere to certain theories on the one hand, because they have received the sanction of a great name or authority; or, on the other, to adopt and promulgate hasty conclusions; but to accept that view which is best supported by the clinical history, the sequence of morbid actions, and the character of associated lesions, in each case. If this be done, I am persuaded that much will yet be elicited respecting the history and nature of syphilitic diseases of the uterus, with which we are at present unacquainted; and I am greatly mistaken if the cervix uteri be not as frequently found to be the seat of secondary syphilitic lesions, as either the throat or the skin, or any other organ or structure upon which the con-

stitutional actions of syphilis are known to become localised.

VI. STRUCTURAL LESIONS OF THE BODY OF THE CERVIX UTERI.

a. *Hypertrophy.* In the course of this inquiry, many cases were met with in which the volume of the cervix exceeded its ordinary dimensions. It has been customary to speak of this as constituting hypertrophy; and with many it is considered to be a very abnormal condition. I believe, however, that this opinion should be received with great caution, and that many deviations from the ordinary volume of the cervix may and do constantly occur within the strict limits of health. I proceed to state the proportionate frequency in which this abnormality was met with, with the respective circumstances of the patients in whom it occurred; and I shall then add briefly the grounds which lead me to believe that it had little to do with syphilis as its cause.

Of the eighty cases, in thirty-one the cervix uteri was unusually increased in volume; in thirty-seven, it is said to have been normal; and in twelve no reference is made to this subject. Of the thirty-one in which it was increased, in eighteen the patients were married, in ten single, and in three the social condition is not mentioned.

The greater relative frequency of this condition of the cervix in married than unmarried women is the most striking circumstance in the history of this lesion in these cases; and it at once suggested to my mind a strong doubt as to whether it had any necessary connexion with syphilis. On further investigating the histories of these cases, I found that, of the eighteen married women in whom it occurred, fourteen had borne children, and four only had not. This fact would therefore favour the conclusion that its causes were rather connected with child-bearing than with syphilis, and that it may, in many cases, be reasonably imputed to such circumstances as interfere with the normal involution of the uterus subsequently to parturition.

b. *Induration.* Of the eighty cases, induration of the cervix is only noted as a distinct abnormality in eleven; and in thirteen only is the cervix distinctly stated to have been soft, normal, and free from induration. Of the remaining cases, I have no specific data. My observations on this point are hence very imperfect; but I am led to believe, from the general though not particular attention paid to this subject, that it does not occur to any considerable extent in syphilitic patients; and that, when present, it has only indirectly any relations to syphilis. Of the eleven patients in which it was met with, six were married, four were single, and in one the social condition is not mentioned.

The greater comparative frequency of this lesion in married than single women is again worthy of notice, and, coupled with the fact that four out of the six in whom it occurred had borne children, would suggest the conclusion that it, like hypertrophy of the cervix, had its origin in causes connected with child-bearing, rather than with the specific actions of syphilis. I must, however, be understood as not speaking positively on these questions. An abnormal condition of the nutritive functions of an organ or part may of course be excited by a variety of causes calculated to set up irritative disturbance; and, of such cases, some may be common, and others specific. I am not anxious to lay more to the charge of syphilis than it really deserves, and I trust, throughout this inquiry, that I have not, either by the statement or omission of facts, endeavoured to establish conclusions which further and more extended observation will not fully confirm.

VII. MALPOSITIONS OF THE UTERUS.

Besides lesions of the uterus affecting its function and structure, other abnormalities were met with in the course of this inquiry, consisting of various malpositions or displacements of the organ, such as prolapsion, retroflexion, and deviations from its normal axis, as ascertained by the aid of the uterine sound. I am so fully persuaded, however, that these malpositions have no necessary connexion with syphilis, that I have not made any specific calculations respect-

ing them. I would even go so far as to say that the uterus in regard to them is altogether a passive agent; and that the cause of these displacements is to be sought for rather in the actions and conditions of adjacent organs than in the uterus itself. It must be remembered, that this organ holds no fixed position in the pelvis, but is liable to have both its situation and axis altered or modified according to a variety of circumstances, more particularly the state of surrounding organs, and the pressure exercised by them upon it. Thus, the varying conditions of the urinary bladder in front, of the rectum behind, and of the colon on either side, may, under certain circumstances, alter its normal axis; whilst an over-distended state of the intestines above, from habitual flatulency or other causes, aided by a relaxed and atonic condition of the parts below, may give rise to and maintain various forms of uterine malposition, prolapsion, or displacement. I have satisfied myself that in many cases this has been the true history of such lesions; and the following notes of one, taken in the course of this inquiry, support the general correctness of this opinion:—

CASE. Elizabeth Homer, aged 18, was admitted into the Lock Hospital Jan. 13th, 1854, suffering from vaginal discharge and condylomata. On physically examining the uterus on Feb. 17th, it was found to be completely retroflexed, the cervix being immediately behind the pubis, looking downwards and backwards, and the fundus lying low in the pelvis, posteriorly to it. The displacement was attended with much uneasiness in the bladder, dysuria, pressure on the rectum, and painful defecation: there was also much constitutional disturbance, probably occasioned by the local suffering. It appeared to have occurred ten days previously, during a violent effort made to relieve her bowels. She had been suffering throughout the preceding day from great flatulency and constipation; and, whilst making an effort to relieve the bowels, she felt something give way and forced out of its place. This was immediately followed by great suffering; she felt faint, and was unable to walk: she was accordingly obliged to be carried back to her bed, and ever since had felt intense pain more or less constantly in the region of the pelvis.

Leaving, then, out of consideration all reference to malpositions of the uterus, and confining my observations to lesions of the functions and structure of the organ, I submit that it has been fully shown by the results of this inquiry that the uterine organs suffer largely from or participate in the effects of syphilis upon the female constitution, and that such derangement is variously manifested by lesions of enervation, of menstruation, of mucous secretion, and of reproduction; whilst, in its progress, lesions of the mucous membrane and of the structure of the cervix are met with, the exact relations of which to syphilis are less obvious, and cannot so specifically be determined. The pathological nature and relations of these lesions to each other will form the subject of a separate inquiry. In the mean time, I proceed to consider some questions which bear upon their general relations to syphilis: in particular, the earliest and latest manifestation of uterine disorder as a consequence of the disease; its relations to particular forms of it; its diagnostic characters; the occurrence of uterine derangement as a consequence of the transmission of constitutional syphilis to the female; and the effects of treatment upon such uterine maladies.

VIII. THE EARLIEST AND LATEST MANIFESTATIONS OF UTERINE DISORDER, AS A CONSEQUENCE OF SYPHILITIC INFECTION.

The most recent cases of syphilis met with in the course of this inquiry were three in which its duration had averaged about a month; and in each of these there was some functional disorder of the uterus. In one of these cases, the patient had menstruated once since infection; but the quantity had been greater than previously, and she had suffered more from backache and leucorrhœa. In this, the cervix was perfectly healthy; it was normal in point of size; and its mucous membrane was pale, smooth, and free from any abrasion, excoriation, or tenderness. In the

second, the patient had menstruated once, and the quantity and duration were the same as before infection; but she had suffered more from pain and leucorrhœa. The cervix was normal in size, and free from any abrasion, excoriation, or tenderness; but its mucous membrane had a dingy red and somewhat maculated appearance. In the third, there was much uterine pain and tenderness of the cervix, attended with tenderness of the lower part of the spinal column. Menstruation had occurred once since infection; but the quantity had been very considerable; the cervix was enlarged (this patient had borne children), but it was of a pale colour, and free from any abrasion or other morbid appearances. In two cases, in which the duration of syphilis had averaged something less than two months, the functional and structural condition of the uterus was as follows. In one, the catamenia had returned every fortnight since infection, but more scantily than before; the os uteri was more patulous than natural, and a large quantity of viscid mucus was seen issuing from it; the mucous membrane of the cervix was abnormally red and slightly tender, but free from any abrasion or structural change. In the second, the patient had menstruated once since infection, at the usual period, but scantily; and there had been occasionally backache. In this, the cervix was normal in regard to size, and not tender on pressure; but its mucous membrane was of an abnormally red colour, and around the os uteri, from which a large quantity of glairy mucus was protruding, there was a bright red looking excoriation.

Such are the dates of the earliest cases I have collected, and such was the state of the uterine organs and functions in each. They conclusively show that uterine derangement may occur in connexion with syphilis at a very early period, as early indeed as the first or second month after infection. It would further appear that the earliest manifestations of such derangement are of a functional rather than of a structural character, and principally consist in disordered menstruation and abnormal mucous discharges. It is moreover certain that such disorders are not occasioned by inflammatory or irritative disease of the uterus, either primarily developed, or continuously propagated to the organ from primary syphilitic lesions; inasmuch as, in the majority, the cervix was pale, and free from either vascular or structural disease. It should, however, be borne in mind that, in all these cases, the absolute date of the commencement of syphilitic disease is uncertain, and that it may have begun before the period assigned; the history of each case commencing only when the local symptoms had become of a marked and unmistakeable character.

With regard to the latest persistency of uterine disease as a consequence of syphilis, I may mention that my tables contain one case in which it had continued for a period of thirteen years, one ten years, one nine years, and another six years; two upwards of five years, one upwards of four years, two upwards of three years, and three upwards of two years. I need not particularise the duration of cases in which it had existed for shorter periods.

IX. RELATIONS OF SYPHILITIC DISEASES OF THE UTERUS TO THE LOCAL OR CONSTITUTIONAL ACTIONS OF SYPHILIS.

The question I propose more particularly to consider under this head is the probable relations of the various uterine lesions met with in syphilis to particular forms of the disease; in particular, whether they are dependent upon its primary or on its secondary actions. It is, for instance, possible on the one hand to conceive that primary sores may either be developed upon the cervix, or that inflammatory irritation may be propagated by continuous sympathy to the uterus from the seat of other primary sores, in which case the consequent uterine derangement might be regarded as dependent upon the primary actions of the disease. Or, on the other hand, in the absence of both these conditions, it is possible that the uterine organs may suffer from the constitutional actions of the disease in a manner analogous to the skin, the throat, the eye, or the bones—the long series of morbid uterine actions or conditions, which I have described as occurring in syphilitic patients, being caused

by the participation of these organs in the constitutional derangement occasioned by the syphilitic poison. Now, looking strictly to facts, and more especially to those which have come under my own observation, I think this question admits of the following answer: That in a small proportion of cases, not probably exceeding three or four per cent., primary syphilitic sores may be developed upon the cervix uteri, giving rise to various consecutive forms of uterine derangement; but that in the great majority of cases, amounting probably to ninety-six per cent., uterine lesions occurring in connexion with syphilis arise from its constitutional actions, and may in fact be regarded as so many secondary affections. I would submit the following facts in support of this opinion.

I. Of the eighty cases examined by myself, in three only were there any appearances on the cervix uteri at all of a specific character: in these, however, there were well defined chancrous-looking sores upon the cervix.

II. In the great majority of cases we do not observe any direct relations between the character and intensity of the local or primary syphilitic lesions and those of the uterus.

III. In the earlier cases of syphilis collected, although there was already some uterine disorder, yet no abnormal vascular or diseased appearances were met with on the cervix. These cases have been referred to in the preceding section.

IV. In many cases, uterine derangement had continued long after the disappearance of the primary syphilitic lesions—a circumstance which would tend to show that the uterine organs were separately and specifically affected.

V. I would adduce in support of this view the greater analogy which it presents to the laws of other morbid poisons. No fact has been more clearly established than the rapid absorption of poisons when in contact with an absorbent surface, such as the mucous membranes; and, moreover, the weight of evidence appears to be in favour of the doctrine, that absorption of the syphilitic poison, and a consequent infection of the constitution, precedes the development of even the primary symptoms of the disease.

We may then, I think, reasonably assume in accordance with well ascertained facts and received opinions, that in the great majority of cases the syphilitic poison is primarily absorbed and diffused throughout the system; and that, possessing certain elective affinities, it sooner or later leads to the development of various primary and secondary affections; amongst others, to the production of certain forms of uterine derangement or disease, in virtue of actions impressed by it on the uterine organs in its transit through the body.

X. THE DIAGNOSIS OF SYPHILITIC DISEASES OF THE UTERUS.

The derangements of the uterus met with in the course of this inquiry were of a twofold character—some being functional, others vascular and organic. I need scarcely observe, that the former possess nothing peculiar in themselves by which they can be distinguished from ordinary derangements of the uterus, arising from various non-specific causes. Irregularities of menstruation, especially suppression, uneasy feelings in the uterus, either during or in the intervals of menstruation, abnormal mucous discharges, with errors in the reproductive function, were the principal forms in which they were manifested; but abstractedly, these functional disorders possess no features by which their syphilitic nature can be determined.

Reverting then to the vascular and organic lesions of the uterus met with in connexion with syphilis, it may be observed that they also were of a twofold character—some affecting more especially the structure of the cervix, others its investing mucous membrane. Of the former, however, it will be sufficient to remark that their proportionate frequency of occurrence was but small, and that in all probability they had no direct or immediate connexion with syphilis.

Restricting then our attention to the vascular and other

morbid appearances of the mucous membrane of the cervix, it will be found that they are referrible to three heads, under which I will separately consider them.

a. Abnormal redness or vascularity, either partial or diffused.

b. Lesions of the integrity of the mucous membrane, such as abrasions, excoriations, or ulcers.

c. Papular, warty, and aphthous appearances.

a. *Abnormal redness or vascularity of the cervical mucous membrane* was met with in thirty-four cases; but in none did it possess any distinctive characters by which its origin or nature could be determined. I have even ventured to doubt its pathological nature in all cases, believing that variations in the colour and vascularity of the cervix may occur within the strict physiological limits of health. It at least cannot be regarded as possessing any diagnostic value, in the great majority of cases in which it is met with.

b. *Lesions of the integrity of the cervical mucous membrane*, variously described by authors as abrasions, granular inflammations, and ulcerations, were met with in forty-eight cases out of eighty; but with four exceptions they possessed no specific characters by which they could be distinguished from ordinary abrasions, etc., arising from various non-specific causes. In the four exceptional cases, however, they had a more marked, and I would add, diagnostic character. In one there was a chancrous-looking sore on the cervix, having well defined edges. In a second there were two well defined superficial sores on the posterior segment of the os uteri, having a yellowish surface or base. In a third there was a small granular sore with well defined edges, situated on the posterior surface of the cervix; and in a fourth there were several aphthous looking spots and excoriations scattered over the cervix. I have seldom met with these appearances in ordinary cases of disease of the cervix, and should therefore be disposed to regard them as specifically diagnostic of syphilitic infection.

c. *Of papular, warty, and aphthous appearances of the cervix*, twelve cases were met with. Of these, in nine they were essentially papular or exanthematous; in two, aphthous; and in one, small warty projections were seen seated upon the cervix. I believe these appearances to be unusual in non-specific diseases of the uterus, and should therefore be disposed to regard them, if not diagnostic of, at least as being calculated to raise a strong suspicion of syphilitic contamination.

Reviewing then the several physical lesions of the cervix met with in syphilis, in very few would it appear that they are sufficiently distinctive to justify our founding a diagnosis upon them. As regards mere lesions of colour and vascularity, we observe nothing diagnostic; of forty-eight cases of ulcerative disease, in four only did the ulceration possess any specific appearances; whilst admitting that a papular, aphthous, or warty appearance of the cervix is characteristic of syphilitic disease, in twelve only, or one-seventh of these cases, was it met with.

In the diagnosis, therefore, of syphilitic diseases of the uterus, it must be rather to the historical and coincident circumstances of each, than to the physical appearances of the cervix uteri, that we must look for assistance; and, it being admitted that our senses are commonly inadequate to the discrimination of syphilitic from non-syphilitic diseases of the organ, it becomes important to consider what are the circumstances in the history and progress of one, by which we may be enabled to distinguish them from the other. I believe that the following are amongst some of the most important.

1. A well founded suspicion of impure intercourse or connexion. 2. The co-existence of affections of the throat, skin, or periosteum, similar to those met with in persons suffering from constitutional syphilis. 3. Repeated abortions without any very obvious exciting cause, or the birth of a child having eruptive appearances of a suspicious character. 4. Persistency of the uterine symptoms after the employment of rational and well directed measures of treatment, or a disposition to their recurrence after intervals of

apparent cure. 5. The absence of those morbid states of the constitution out of which uterine disorder commonly arises. 6. Unusual complexity in the character of the uterine derangement. It will, I think, be found that attention to these and similar circumstances will afford the best, if not the only, guide to the diagnosis of diseases which are so similar in their appearance, yet so different in their nature, as syphilitic and non-syphilitic diseases of the uterus.

XL ON THE OCCURRENCE OF UTERINE DERANGEMENT AS A CONSEQUENCE OF THE TRANSMISSION OF CONSTITUTIONAL SYPHILIS TO THE FEMALE.

One of the most important questions connected with the present inquiry, and one which it is most difficult to determine rightly, is the extent to which the uterine organs are liable to suffer from the transmission of constitutional syphilis to the female, either by the husband or by the fetus *in utero*. I am aware that this is a subject upon which the greatest scepticism prevails, and one in regard to which it is difficult to obtain accurate information; but several cases which have come under my observation lead me to believe, not only in the possibility of such transmission, but that it is a cause of uterine disease which, although latent, is more widely spread in its operation than is commonly supposed. Before, however, entering specifically upon this subject, I will briefly consider the general question of the transmissibility of constitutional syphilis, to which, indeed, it is strictly subordinate.

To the general question, then, broadly stated, Can a female be infected by a person suffering from constitutional syphilis, without his having any primary symptoms, and without imparting any to the female?—I have no hesitation in recording an affirmative answer. I have the written histories of three cases by me, in which uterine derangement thus occurred shortly after marriage, without having previously existed, and in each had continued for a lengthened period. In neither had the husband any trace of syphilis at the date of marriage; but in each he had suffered from primary symptoms some time previously to this event, and in each the fact was confirmed by the occurrence of affections of the throat, skin, and periosteum, during the progress of the uterine malady, similar to those met with in persons suffering from secondary or constitutional syphilis. I have no room to enter into details; but, as the opposite opinion has been held by many eminent authorities, I would wish briefly to advert to one or two circumstances which, in my opinion, militate against it, and which do not appear to have been sufficiently considered by those who have maintained it.

It has been generally held that constitutional syphilis is not communicable, because many well directed experiments, performed both in this country and on the continent, and more especially by Hunter and Ricord, have established the fact that the pus or morbid secretion of a secondary lesion fails on inoculation to give rise to any specific affection. But, admitting the fact, two exceptions may, I think, be taken to the doctrine which has been deduced from it—that secondary or constitutional syphilis is never, under any circumstances, communicable: 1. That it by no means follows that, because no specific local affection results from such inoculation, therefore no constitutional infection takes place; and 2. That no experiments have, or ever can be, performed with the matter of secondary syphilis, in a manner at all analogous to that in which it is presumed that a husband, suffering from constitutional syphilis, may impart a syphilitic taint to his wife. The nearest approach to this mode of infection is that in which a syphilitic child, through the secretions of its mouth, may infect the nurse by whom it is suckled; and this fact, generally admitted, furnishes a strong argument in favour of the transmissibility of constitutional syphilis under certain circumstances.

But further, it is conceded that secondary symptoms may be transmitted from the parent to the child under many different circumstances. It appears to be clearly established, for instance, that the father being separately dis-

eased, or the mother being separately diseased, may equally transmit them; and that the child *in utero*, being diseased through the father, may be the medium of communicating the disease to the mother. Now, if these facts are admitted, and they rest upon the testimony of some of the most accurate observers, we can scarcely hesitate to believe that constitutional syphilis may, under certain circumstances, be transmitted from one sex to the other. It is not, however, necessary to show, nor is it indeed contended, that any given lesion should be reproduced by inoculation—that the pus, for instance, of an ulcerated throat shall produce a specific ulcer of the part into which the matter is inserted, or that the matter of syphilitic ecchyma shall produce an ecchymatous eruption. All that is contended for is, that the repeated inoculation of such secretions may ultimately impart a syphilitic taint to the party inoculated; and this appears to be clearly shown to be possible by the cases I have referred to.

Passing, then, from the general question of the transmissibility of constitutional syphilis, I proceed to adduce the following facts and considerations in support of the doctrine that the uterine organs are thereby especially liable to become disordered and diseased. 1. The cases already referred to, in which marked uterine derangement occurred after marriage; the husband in each having had primary symptoms some time previously, but none at the date of marriage, and in which other symptoms of constitutional syphilis subsequently supervened. 2. The great frequency of uterine derangements in persons suffering from constitutional syphilis, as observed in the course of this inquiry. 3. The undoubted fact that abortions, premature delivery, and other errors in the reproductive function, do occur in persons suffering from secondary forms of the disease. 4. The frequent occurrence of inflammation of, and muco-purulent discharges from, the sexual organs of female infants born syphilitic. 5. The presumption that a morbid taint may be given through the medium of the seminal secretions, being granted, it follows that the uterine organs would be especially liable to suffer, in consequence of their immediate reception of such secretions.

Apart, however, from all theoretical considerations, it is certain that a man apparently cured of syphilis, and marrying a female of unquestionable character, may beget one or more children who shall be born syphilitic, notwithstanding that neither of the parents may exhibit a trace of the disease, either at the birth of the child or during utero-gestation. It is also certain that several abortions or miscarriages and premature labours may thus occur; and there are strong grounds for believing that under the same circumstances conception may be altogether prevented. Now taking these facts into consideration in connection with those brought to light by the present inquiry, especially the extreme frequency of functional and structural diseases of the uterus in persons suffering from syphilis—a frequency which, I believe, far exceeds that of any other secondary lesion—it appears to me to be impossible to doubt that the uterine organs do largely and specifically suffer from the actions of the syphilitic poison upon the female economy, and that the cause of the several errors in the reproductive functions referred to are more especially to be sought for in the occurrence of such uterine disorder or disease—a disorder which it is quite consistent with analogy, and quite possible on other grounds, to believe may arise from the transmission of constitutional syphilis, and be set up in the absence of the more ordinary secondary forms of the disease. Let me not, however, be misunderstood in regard to the ultimate conclusions which I venture to deduce from these facts. It has been distinctly shown, as one principal result of this inquiry, that the lesions of the uterus met with in syphilis rarely possess any distinctive characters by which they can be diagnosed from non-syphilitic affections; nor, I would add, are we justified in any case in giving a positive opinion respecting them solely upon physical evidence. When, however, it is known that uterine derangement has followed upon marriage which had not previously existed,—when repeated abortions or

other errors in the reproductive functions have occurred,—when also it is known that the husband had some time antecedently suffered from primary symptoms—when under these circumstances, such uterine derangement resists rational and well directed measures of treatment, and moreover becomes complicated with affections of the throat, skin, or periosteum, similar to those met with in persons suffering from constitutional syphilis—then it appears to me that we are bound to take the question into our most serious consideration; and if doubt or suspicion exists, to give the patient the benefit of such doubt or suspicion, by submitting her to that course of treatment which can alone eradicate the morbid taint under which she may be presumed to be labouring, and upon which her uterine ailments may be assumed to depend.

XII. THE RESULTS OF TREATMENT.

Under this head I am only anxious to direct attention to the extreme difficulty of eradicating uterine derangements consequent upon syphilitic infection, unless their true nature be properly recognised. I have recorded cases in which such derangements had continued for periods of six, nine, ten, and thirteen years; and I have met with others in which they had existed for very lengthened periods. I have moreover observed that they have a tendency to recur after intervals of apparent cure. The practical inferences which I would venture to deduce from these facts are the importance, on the one hand, of investigating the functional and physical condition of the uterine organs in every case of syphilis before deciding upon its ultimate cure; and, on the other, the necessity of persevering in the employment of constitutional remedies so long as any evidence of any uterine derangement exists. I venture to urge these considerations with the greater freedom, because I have reason to believe that but little attention is commonly paid to the functional and organic condition of the uterine organs in the treatment of syphilis, and because I have met with cases in which marked uterine derangement had continued after the disappearance of all other traces of syphilitic disease.

The sketch thus imperfectly attempted of the several uterine lesions which follow upon syphilitic infection, will be further elucidated by a reference to the tabular analysis of cases which accompanies this paper.* In that analysis I have arranged in a tabular form all the principal incidents connected with the syphilitic affection,—the condition of the uterine functions before and after infection respectively,—the physical appearances of the cervix uteri,—and the reaction of any uterine derangement upon the general health in each of the cases whose history I have taken. To it, therefore, I would refer for any further details connected with the subject of this inquiry which the limits of the paper have obliged me to omit: I would also add, for the correction of any errors which may have been committed in its compilation; for it is scarcely possible to avoid committing some errors in an inquiry like the present. For such errors, and it may be for many accidental omissions, I would plead in extenuation the inherent difficulty of the subject on the one hand, and the precariousness of the materials I had to work with on the other. There are few subjects in the whole range of medical inquiry so recondite or inexplicable as the operations of the syphilitic poison in the production of morbid actions, and there is none in regard to which it is so difficult to obtain accurate data. Impressed with this conviction, I began this inquiry rather as a pathological study than with any view to its ultimate publication; and I trust I may not be deemed unconscious of its many imperfections in finally submitting it to the notice of the profession.

Chester Place, Hyde Park Gardens.

* This analysis was presented to the Medical and Chirurgical Society with the present paper.

FURTHER REPORT OF A CASE OF INTESTINAL OBSTRUCTION AFTER STRANGULATED HERNIA.

By GEORGE MALLETT, Esq.

[The following addendum to Mr. Mallett's paper, published in the last number of the JOURNAL, arrived a few hours too late for insertion last week.]

Thus far had I written with a view to publication; but the further progress of the case proved that I was in error, and had prematurely come to the conclusion that it had terminated.

On the 6th November, I was again requested to visit the patient, and found that two days previously he had complained of pain in the wound, which had not quite cicatrised. Mr. Bancroft examined, and found that a small abscess had formed by the side of the hernia. In the evening the abscess burst, discharging purulent matter. On the following day, gas and feculent matter were expelled in very considerable quantities.

On the 6th November, he was weaker than when I saw him on the 29th October; but there was no symptom sufficiently severe to produce alarm as to the result. The bowels had been regularly moved every day, the appetite moderately good, and there had been no sensations indicating severe indisposition.

From the 6th November to the present time, the case has been diligently attended to and skilfully treated by Mr. Bancroft; and the patient is again quite convalescent. The bowels are moved every day *per vias naturales*; and the feculent discharge from the wound has almost entirely ceased. In all probability, the wound will in a few days be completely closed.

REMARKS. I now think it pretty certain that the continued obstruction of the bowels, so long after the operation, was caused by the inflammation of the knuckle of intestine, which had been strangulated, causing adhesion to the inferior surface of the omentum; and that subsequently the pressure and irritation produced by the retained hardened feces, had brought on ulceration of the bowels and abscess, which was lastly discharged through the wound.

Bolton-le-Moors, Nov. 17, 1854.

PERISCOPIC REVIEW.

TOXICOLOGY.

REPORT ON TOXICOLOGY.

By HENRY D. LITTLEJOHN, M.D., Fellow of the Royal College of Surgeons, Edinburgh.

ARSENIC.

PRESENCE OF ARSENIC IN MINERAL WATERS.

WHEN a superficial examination has shown that mineral waters contain innocuous combinations, such as marine salt, sulphate of soda, etc., we should not stop short in our investigation, and rest satisfied with these results, as a recent communication of Baron THENARD to the Academy of Sciences tends well to show. The celebrated dean of the chemists having passed last year at the waters of Mont Dore, felt convinced that the effects produced by their use could neither be explained by the iron or the carbonic acid (whether free or combined with soda) which they contained; and he determined to employ the time of his sojourn there in finding out the active principle of the waters. Already had Dr. Bertrand, Professor of Chemistry at Clermont, detected a certain quantity of arsenic in the ferruginous deposits left by the waters, which rendered it probable that a certain proportion existed in solution in the water furnished to the bathers. Not only does arsenic enter into the composition of these waters, but M. Thenard has shown in what condition and in what proportion it is to be met with. To demonstrate the presence of arsenic, we have but to reduce the water by evaporation to one-fortieth, and to treat the residue with Marsh's apparatus. It is found combined with soda, most probably as an arseniate; and M. Thenard estimates the amount of arseniate of soda as one-sixtieth of a grain to a quart of the water. We cannot