

ON THE RELATIONS OF UTERINE TO CONSTITUTIONAL DISORDER.

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(Continued from p. 1006 of last Number.)

IN the preceding observations, I have treated more particularly of the influence of derangement of the cerebro-spinal portion of the nervous system upon the uterine organs, as exemplifying one form of the relations which subsist between uterine and constitutional disorder. I referred more especially to spinal irritation, as a consequence of certain mental affections on the one hand, and the cause of uterine diseases on the other; and I adduced several facts and cases in support of the opinions which I ventured to express. I shall now proceed to treat of morbid conditions of the sympathetic or ganglionic portion of the nervous system, as connected with the question under consideration; and, in doing so, will select the subject of **CHYLOPOIETIC DISORDER**, as being best calculated to illustrate the nature, the extent, and the importance of their relations to uterine pathology.

But, in speaking of chylopoietic disorder, it may be necessary to premise, that the term admits of a more extended and somewhat different signification to that which is ordinarily attached to it. We speak, for instance, of indigestion, dyspepsia, bilious disorders, disorder of the digestive organs, etc., as implying some derangement of the stomach, liver, or other portion of the alimentary canal, whilst in reality it is often the case that these affections are but the manifestations of a more deep-seated disorder, one involving either the nervous system at large, or the ganglionic portion in particular. For, just as it is true, that various local disorders of parts, which are supplied with nerves from the cerebro-spinal axis, depend upon irritation or disease of the cerebral or spinal ganglia, so is it true that many functional affections of the stomach, liver, and intestines, and of other organs, whose nerves are derived from the sympathetic, depend primarily upon irritation, or disease of the ganglia of this portion of the nervous system. It is probable, indeed, that it is from impressions made upon these ganglia that the digestive organs participate so largely in morbid states of the constitution, and have hence been regarded as the centre of sympathy; that it is upon these ganglia that all mental and emotional stimuli immediately operate; and that it is these which are primarily influenced by abnormal conditions of the blood. The impressions so made are doubtless soon followed by various functional disorders of the chylopoietic viscera; but these are, in many cases, rather symptomatic of disease of the ganglia, than diseases of the viscera themselves.

But however regarded, there is no system of organs which is so liable to disorder as the digestive, whether from the operation of causes which are directly applied to them—constitutional derangement, mental affections, or sympathy; and there is none, the disorders of which react so injuriously upon the constitution at large, or the uterine organs in particular. There are few instances of uterine disease which are not

attended with some form of chylopoietic disorder, either as a cause, a consequence, or an accidental complication; and upon this association of morbid actions, or rather upon the reciprocal influence which the disorders of one organ exercise upon those of the other, may be said to depend much of the difficulty which attends the treatment of uterine diseases. On looking to the table published in the preceding part of this inquiry, it will be found, that digestive disorder was an almost invariable concomitant in the cases referred to; that in by far the larger number it had existed as an antecedent; whilst the history and results of treatment, which will hereafter be alluded to, tend to show that this antecedence was not merely casual, but that the chylopoietic disorder was generally the cause of the uterine. On these grounds, then, alone, the disorders in question demand a careful consideration, in connexion with the present inquiry, inasmuch as they must have important relations to the pathology of uterine diseases.

And if, in the first place, it be asked, what are the circumstances in which such disorders arise? It may be replied, that they are referrible to two principal sources; the one comprehending all such causes as, applied to the *surface of the gastro-intestinal mucous membrane*, are calculated to produce irritation or disorder, such as those connected with errors and irregularities of diet, and the presence of crude, unhealthy, or undigested matters in the *primæ viæ*; the other, various constitutional causes, referrible to the blood, the nervous system generally, or particular organs or parts, or such states of mind as are calculated to act unfavourably upon the *ganglia of the sympathetic*, which more immediately preside over the functions of these viscera.

Thus, whenever the constitutional powers are greatly depressed, or the body is enfeebled, either from disease, want, privation, mental, or any other causes, it will follow, that the stomach and digestive organs, participating in this general weakness or depression, will become morbidly susceptible, and thus readily disordered, either spontaneously, or through the operation of some trivial disturbing cause.

But in other cases, and when no such general weakness or depression exists, the digestive organs may become deranged, from various local irritations or diseases in remote parts of the body, and this in conformity with a principle which will hereafter be referred to. Thus we observe in all the affections of important organs, such as the brain, lungs, heart, kidneys, uterus, etc., that the stomach becomes sympathetically disordered, and such disorder the cause of various secondary diseases; but such consequences are not confined to the more important organs of the body alone, for irritation wherever existing, however trivial in degree, or however apparently unimportant the part, may, under certain circumstances, also affect the stomach and digestive organs; and here, as in the former case, the affection thus secondarily produced will again react upon the constitution, as well as on particular parts, variously disturbing the former, and leading to divers local diseases in regard to the latter.

Thus it happens that in persons who inherit a feeble constitution, or in whom it has been acquired, whose nervous system is naturally irritable, or has been rendered so by any causes whatsoever, who have been the subjects of severe disease, who have been addicted to irregularities of diet, whose health has suffered from a residence in tropical

climates, from sedentary pursuits, intense study, privation, or anxiety, and in those in whom the blood is impoverished or deteriorated, the digestive organs become morbidly susceptible, and are thus readily disordered.

Now, in this general enumeration of the circumstances in which chylopoietic disorders arise, it will be found that nearly all of them apply with particular force to the habits and constitution of the female, as distinguished from the male. In her, the brain and the nervous system are more sensitive, and consequently more liable to be disordered by mental and other causes. In her, the constitutional powers are less vigorous, and these are often still further reduced by sedentary habits, and a disregard of proper hygienic measures. Education, in many instances, and particular pursuits in others, impair still more the tone of the nervous system, and proportionately injure the constitution; whilst from the concurrence of these several causes an impoverished condition of the blood, sooner or later, is induced, which cooperates with them in originating and maintaining an irritable and disordered state of the stomach and digestive organs: and the disorder thus secondarily induced, seldom fails to react again upon the constitution, and thus to produce a state of general irritation, which is favourable to the production of various local diseases.

But in this general reaction it will be found, that some organs are more liable to be disordered than others, according as the sympathy between the stomach and particular organs is more or less intimate. The stomach has been truly said to be the centre of sympathy, but the nature of this sympathy varies very considerably in regard to different organs. With none is it so intimate as with the uterus, and we may hence, in conformity with the acknowledged laws which regulate this principle of action, as deduced from a careful consideration of various facts and circumstances, legitimately account for the frequent, and, indeed, almost constant occurrence of uterine disease, as a consequence of chylopoietic disorder.

The sympathies of the stomach, I need scarcely remark, have long attracted the attention of medical men; they were known nearly two thousand years ago to Celsus, who observes, that when the stomach is disordered, the whole system is disturbed, and that the weaker parts more especially suffer. He pointed out its influence upon the heart's action, and its tendency to produce various local diseases in remote parts of the body, as also its capability of maintaining a state of general irritation of the nervous system. But it is more especially to the industry and genius of Hunter, that we are indebted for nearly all that is at present known upon the subject. He taught us, that through this principle, all the actions in an animal have a connexion with one another; the living principle of one part sympathising with the living principle of another; the nerves of one part sympathising with the action of the nerves in another; and the mind sympathising with the mind; that, as a consequence of this principle, no considerable disorder can take place in one part of the body without producing correspondent derangement in others; that, as another consequence of this principle, an action may arise secondarily, without any immediate impression; the part so secondarily impressed, either acting in conjunction with that primarily acted on, or taking the whole action on

itself; or, as he otherwise expressed it, one part under the stimulus of irritation or disease, is capable of stimulating another into sensation, action, etc. He maintained, moreover, that sympathy is a principle in animal bodies, so intimately connected with every possible impression, affection, and action, that we cannot have a proper conception of the animal economy respecting diseases, without taking it into consideration. It arises, he observes, from every part of the body being ready to fall into affections and actions in consequence of an impression, affection, or action, taking place in some other part, and it consists essentially in one part participating in the impressions, affections, and actions of another.

But we are more especially indebted to him for pointing out the importance of this subject in connexion with the stomach and digestive organs on the one hand, and morbid states of the constitution, on the other. From an attentive consideration of many facts, he was led to believe that the stomach had a direct sympathy with all parts of the body, and thus might be regarded as the seat of universal sympathy; that when the stomach sympathised strongly with any part, this state of the stomach produced a morbid condition of the constitution, from which, however, some organs would suffer more than others, and whence it followed, that various local and apparently unimportant diseases of remote parts of the body might, through the medium of this organ, produce a state of constitution favourable to the causation of various secondary diseases, the precise nature of which would, in a great measure, depend upon the peculiar sympathies subsisting between the stomach and particular organs. The correctness of these doctrines, and the importance of their application to medical practice, have been especially dwelt upon by Mr. Abernethy, who has shown, that if the disordered feelings and functions of the digestive organs thus induced be removed, the greatest degrees of nervous disorder in remote organs and parts will sometimes cease suddenly; at other times, they will be greatly mitigated and subside, proving that, in such cases, the one derangement is the cause of the other.

From a careful consideration of this subject, we may, I think, deduce some practical conclusions which bear immediately upon the pathology and treatment of uterine diseases. We may learn, in the first place, that impressions made upon the stomach and digestive organs may be so reflected upon the uterus as to give rise to uterine disorder, without the stomach and digestive organs themselves being very manifestly disturbed. Thus it often happens, that trifling irregularities of diet, and other causes, which can only act, at least primarily, upon the digestive organs, frequently occasion feelings of pain, discomfort, or uneasiness in the uterus, when the former organs would appear to have been but slightly disturbed; and in some cases, the uterine disorder may be very considerable, while that of the stomach is scarcely perceptible. The same thing is observed also in the instance of a loaded, flatulent, or disordered state of the colon, which may be unattended by any pain or discomfort in the immediate seat of the disorder, while considerable pain and uneasiness may be felt in the uterine and ovarian regions as its consequence. Now these circumstances are precisely in accordance with what has been laid down by

Hunter as a law or principle of sympathy; for he taught, that when disorders and consequent diseases thus arise, the organ sympathetically disturbed may suffer more than that originally affected; or that the part secondarily impressed may take the whole action on itself. As regards the uterine organs, this principle is of the utmost importance, and admits of an extensive application; for there are none which are so ready to fall into morbid actions and affections, as a consequence of the morbid actions and affections of other organs; and whilst the sympathetic disorder of these, thus induced, may assume considerable importance, the actual causes from which it springs, and by which it is continued, may be altogether lost sight of, if not carefully looked for. I had on one occasion a striking illustration of this form of sympathy, in the instance of a parturient patient, in whom, of course, the uterine organs are more than usually susceptible to impression, and, consequently, in whom the effects of various causes are more easily appreciated.

CASE. Mrs. C., aged 34, was confined on the 12th August; she went on favourably until the seventh day after her confinement, when she drank a small quantity of cold toast-water, being at the time not very strong, and somewhat heated and perspiring. This was immediately followed by a sensation of extreme coldness in the uterus, which continued for a period of two days persistently. From the first, she felt no sensation of cold in the stomach, the impression having been entirely reflected from this organ upon the uterus. Had the sensation experienced been that of pain instead of cold, it might have led to the conclusion that there was uterine disorder or disease, and thus to the adoption of measures which, as the result proved, would have been altogether unnecessary.

Secondly, we may learn how all the circumstances which have been referred to, as calculated to give rise to gastro-intestinal derangement, may be regarded, in one sense, as the causes of uterine disorders also. For though the operation of these is primarily upon the stomach and digestive organs, or the ganglia connected with them, and derangement of these is first produced, yet this, by a sympathetic or reflected kind of operation, may, and frequently does, become the cause of secondary uterine affections. Hence it is that many circumstances, not apparently having any connexion with the uterus or its diseases, thus become so, and require to be carefully considered in their treatment. We can thus see how the causes previously spoken of, such as depressed states of the constitution, irritable conditions of the nervous system, morbid conditions of the blood, constitutional derangement of any kind, local irritation or disease, irregularities of diet, sedentary pursuits, anxiety of mind, a residence in warm climates, want, privation, etc., may indirectly affect the uterine organs, and either originate or maintain a state of uterine irritation or disease.

Thirdly, it will follow, that when causes have primarily and directly acted upon the uterine organs, as when cold or sudden fright have checked or interfered with the menstrual secretion, such arrest or interference will speedily be followed by corresponding disorder of the stomach and digestive organs, which will, in turn, sympathetically augment the former, and variously disturb the whole constitution. If we carefully inquire into the history of such cases, this, in fact, will be

generally found to be the usual order and sequence of the morbid actions which take place. Almost invariably the digestive organs become disturbed concurrently with the constitution; and the disorder of these, while it increases the constitutional disturbance, interferes with the return of healthy uterine action. It is well known, for instance, that anæmia is a frequent consequence of suddenly suppressed menstruation; and it has generally been attributed to the direct action of the uterus upon the blood, or the constitution: but I believe that in nearly all cases it will be found to be immediately dependent upon an intermediate disorder of the stomach and digestive organs, which, although occasioned by the suppression, is continued independently of it. This may not always be very obvious, whilst sometimes it is very considerable, and consequent upon it the blood becomes impoverished, which, together with the chylopoietic disorder, keeps up a state of irritation of the uterine organs, which is altogether incompatible with the return of healthy functional action. By correcting the disorder of the digestive organs, however, together with any other that may have been simultaneously produced, as also the condition of the blood, it will generally happen that healthy uterine action will spontaneously return without any specific treatment. Of this I have seen numerous instances.

Lastly, seeing how readily gastro-intestinal disorders may be occasioned by uterine disease, and how painfully they react again upon the constitution and the uterine organs, we may learn the importance of maintaining tranquillity of the stomach and digestive organs in the treatment of those cases of organic uterine disease which are not susceptible of radical cure. Almost all such diseases may be said to occur in two forms—the one being active, the other quiescent—and in the latter state they are often compatible with a considerable degree of health and freedom from local uneasiness. For of no organs can it so truly be said as of the uterine, that a very great amount of organic disease is not inconsistent with a tolerably healthy performance of function, if incidental causes of disorder or irritation are removed. The causes, then, of such incidental disorder or irritation, deserve to be carefully investigated; and they will, I am persuaded, be more frequently found in connexion with the derangements in question than is generally supposed. Upon these, indeed, have appeared to me to depend, for the most part, those dangerous consequences which so often occur in connexion with organic uterine diseases, and which are so fraught with injury to the health and constitution of the patient. To take fibrous tumours in the walls of the uterus as an example, we find them in some cases altogether unproductive of any particular symptoms; and even when of considerable size, they may continue for many years without being even recognised either by the patient or practitioner. Menstruation may go on normally; pregnancy may take place, and proceed favourably; and parturition may be safely accomplished. But in other cases we find them attended with much irritation of the uterus, and great functional disorder, such as pain, hæmorrhage, leucorrhœa, etc. Now that which determines the difference in these cases, appears to me to be altogether independent of the uterus and of these particular growths, and may in a great measure be traced to irritative disorder of other organs which sympathetically

disturb the uterus, morbid conditions of the blood, and disturbed states of the nervous system generally; and that such is really the case is proved by the fact, that if these incidental sources of uterine irritation be removed, such active forms of uterine disease will become quiescent, and cease to endanger the health or comfort of the patient. Of this I have also seen numerous examples.

When again we consider the relations of the stomach and digestive organs to the ganglia and nerves of organic life; when we bear in mind that the uterus is principally supplied with nerves from this source; that its ganglia and nervous endowments are very considerable, and that they have intimate connexions through filaments and plexuses with the great ganglia which immediately preside over the functions of the stomach and digestive organs, we must admit that there are ample reasons for believing that morbid conditions of the one organ should be rapidly propagated to the other; for it is a well-established physiological dogma, that when organs are supplied with nerves from the same ganglia, they more readily participate in each other's actions, impressions, and affections, both morbid and physiological, than when they are supplied with nerves from a different source. From a consideration of this principle, it would appear obvious, that not only do the whole of the chylopoietic viscera sympathise intimately with one another, but that this sympathy is extended to the whole of the organs contained in the pelvis, of which the uterine may be considered as the most important. From the earliest periods, the sympathies of the uterus with the stomach have attracted the attention of medical men; but the *reciprocal* nature of these sympathies have not been as carefully attended to, although it admits of easy demonstration that the uterus is more readily affected by morbid conditions of the stomach, than is the latter affected by morbid and peculiar conditions of the former; and accordingly it may be laid down as a sound pathological axiom, that in general the stomach cannot be much disordered without giving rise to correspondent disorder of the uterus. When severe gastric irritation exists, the sympathetic uterine disorder may, and often is, equally severe; but in slighter forms of disorder of the stomach and digestive organs, the same principle holds equally good, and hence from such causes various subdued forms of uterine disorder may arise. It is to this point I am anxious more especially to direct attention, because whilst, on the one hand, the influence of uterine derangement upon the stomach is generally admitted, as is also that of severe gastric disorder upon the uterus, the reciprocal relations which subsist between the slighter forms of irritative disorder of both, do not appear to have been sufficiently recognised, or if recognised, they have not been duly regarded in practice by the generality of practitioners.

Looking again to the circumstances in which gastro-intestinal derangements originate, seeing that they may be perpetuated by an endless variety of causes, we cannot be surprised that consecutive disorders, uterine as well as others, should often be protracted, and difficult of removal. For whilst disorders of the digestive organs, in some form or other, are probably the most frequent of the maladies which prevail in social life, they are at the same time those which it is most difficult to rectify. In some cases, they are dependent upon

habits or modes of life, which the patient cannot, or will not, relinquish. In others they arise from mental or moral causes, which in the varied forms of disquietude of mind, anxiety, trouble, or affliction, are almost inseparable from our social existence. In one grade of society they are met with as a consequence of indolence, dissipation, or excess; in another, as a result of want, penury, and destitution; and such disorders, however induced, by their reaction upon the constitution and the nervous system, are rendered additionally complex and proportionately difficult of cure. On this subject, an eminent writer says,—“Of late I have been inclined to regard these circumstances as the cause of the complicated diseases which are met with in man so much more frequently than in animals. In man the brain is more sensitive, and liable to be disordered by mental affections. In man the digestive organs are liable to be disordered by stimulating and unnatural diet. Sedentary habits and impure air cooperate to aggravate these disorders. The affections of the brain and digestive organs mutually increase each other, and thus a state of constitution arises which is productive of the most general and complex diseases. But even these do not seem to me to be the most calamitous terminations of such causes. The disorder of the sensorium, excited and aggravated by the means which have been described, frequently affects the mind. The operations of the intellect become enfeebled, perplexed, and perverted. The temper and disposition irritable, unbenevolent, and desponding. The moral character and conduct appears even liable to be affected by these circumstances. The individual in this case is not the only sufferer, but the evil extends to his connexions and to society.”¹

Impressed with the importance of these and similar considerations, I have for many years been accustomed to study uterine diseases with especial reference to their constitutional origin and causes; and in taking the histories of cases, I have more particularly sought for information on this point, which I have carefully noted down. The result of doing so has been to convince me that constitutional causes have more to do with the origin and continuance of uterine diseases than is commonly supposed; that chylopoietic disorders—sometimes singly, but more frequently associated with others—do, in the great majority, precede and give rise, first, to uterine irritation, and, secondly, to various uterine diseases; and farther, that a proper and full appreciation of this circumstance is indispensably necessary to their successful treatment. The extent to which chylopoietic derangement is met with in connexion with this class of disorders, either as a cause, a consequence, or an accidental complication, would be altogether incredible, if facts did not directly support the observation. Thus of the hundred cases referred to, and tabulated in the earlier part of this paper, chylopoietic disorder existed as an antecedent in 82, and as a concomitant in 97. In 33 it coexisted with spinal irritation; in 87, with anæmia; and in 20, anæmia; spinal irritation and chylopoietic disorder were met with concurrently. It is surely then unnecessary to adduce any further evidence in support of the opinion that such disorders, either singly or combined, do, in a large proportion of cases, precede and give rise

¹ ABERNETHY. *Surgical Works*, vol. i, p. 265.

to uterine derangement, and are also the chief causes by which these derangements are both complicated and perpetuated.

In proceeding to illustrate these views by a reference to practical examples, I shall, in the first place, adduce cases which show the severe consequences which may be occasioned by chylopoietic disorder when this is of a marked character, or the uterine organs are in a state of undue susceptibility. This latter condition is best exemplified in the instance of parturient females, in whom the uterine organs, from being in functional activity, are unusually susceptible to impressions, and in whom, consequently, the operation of causes calculated to disturb them is best studied and observed. But another purpose will also be served by doing so; for by showing the disastrous consequences which may result under these circumstances from such causes, we may learn to appreciate the injurious tendency of similar causes upon the uterine organs when occurring in a slighter degree, or when these are in a less susceptible state. For, if in the former case it can be shown that sudden or violent irritation or derangement of the stomach and digestive organs can so affect the uterus, when it is thus susceptible, as to give rise to considerable disturbance of this organ, or of the constitution in connexion with it, then it appears to me that it will follow as a necessary corollary from such facts, that slighter forms of continued gastro-intestinal disorder may so affect the uterine organs as to give rise to less violent, but more persistent forms of uterine derangement.

The consequences to be apprehended from violent or sudden gastro-intestinal disorder in the instance of pregnant females, are convulsions, premature labour, the death of the child, and various untoward occurrences during the puerperal period. I shall, in the first place, select two cases to illustrate this influence, and the consequences which may sometimes happen from omitting to recognise and to remedy such antecedent disorder. I shall then add two others, in which similar disasters were to be apprehended, but were averted by adopting prompt measures for the relief of the chylopoietic derangement.

CASE. A young lady of considerable fortune, within a month of her confinement, entertained a party of friends in the Christmas of 1845. She had on a former occasion been prematurely brought to bed of a still-born child, and this circumstance, together with the anxiety felt for her by her husband and friends, had induced them to place her under the care of an experienced practitioner, who for a month previously had almost daily visited her, and on the day in question, reported that he considered her health and prospects to be as favourable as could be wished. The dinner consisted of the usual rich fare which is customary at that season of the year, and although she partook of it moderately, it was evident that her stomach had become disordered. On leaving the dinner table, she felt faint, sick, and indisposed, and her medical attendant was sent for; previously, however, to his arrival, frequent efforts at vomiting had taken place, in some of which portions of food had been thrown up. She was somewhat relieved by this, and he, on his arrival, finding her better, and considering the case to be one rather of irritability of the stomach than of positive disorder, and believing that the vomiting which had taken place had sufficiently unloaded the stomach

of obnoxious matters, contented himself by prescribing effervescing salines, with small doses of laudanum. Towards midnight the symptoms were relieved, the opiates had produced a disposition to sleep, and he left with the conviction that no farther bad consequences would ensue. About five the next morning she was attacked with convulsions, and, as I was in the house on a visit, I was called up to see her. As soon as a lancet could be obtained, I took a basin of blood from her arm, and her medical attendant, who had been sent for, arrived shortly afterwards with another practitioner. The bleeding had somewhat relieved the convulsions, and consciousness returned, but only for a short time. In consultation, it was not thought advisable to carry depletion any further, and soothing calmative measures were considered to be indicated. The head was shaved and kept cool; salines were given, containing small doses of opium, and the utmost tranquillity was enjoined; nevertheless the convulsions continued to recur; in the course of the next day, labour-pains were observed: which were assisted as far as it was possible, in the hope that when labour had taken place, the convulsions would cease. But this was delusive; in due time the patient was delivered of a still-born child, but there was no remission of the convulsions. The patient gradually became comatose, and died on the third day. On a *post-mortem* examination, it was found that the sinuses of the brain were congested, and that the brain itself was more vascular than natural. The ventricles contained about two ounces of serum, and a small quantity was effused at the base of the brain. No examination was made of the stomach or alimentary canal

Whether a different result would have followed a different mode of treatment at the onset of this case; whether, in fact, if the state of the stomach and bowels had been carefully investigated, and they had been thoroughly unloaded of their obnoxious contents by evacuant measures, the patient would have survived, I am unwilling to express an opinion; but there can be no doubt, that the train of events which ended in the death of this lady, originated in a disordered state of the stomach and digestive organs, together with an advanced period of pregnancy. Looking, indeed, to the fact that the nervous system is almost morbidly susceptible to impressions during this state from a variety of circumstances, we cannot be surprised that when additional disturbing causes come into operation, and more particularly gastrointestinal irritation, that violent consequences should sometimes ensue, and such as were observed in the present case. That a disordered state of the stomach and bowels existed, and immediately gave rise to the attack in this case, is shown by the fact of the patient having been particularly well up to the period of her partaking of a rich indigestible meal, by the occurrence of nausea and vomiting shortly afterwards, and by the convulsions beginning almost immediately after the spontaneous efforts at vomiting had been subdued by opiates. Such cases are extremely but painfully instructive, and should teach us the necessity of examining carefully the state of the stomach and digestive organs whenever nervous disorder is threatened during pregnancy, or the puerperal state.

CASE. A lady of extremely nervous temperament, aged 27, and whose general health had been for many years very delicate, had

arrived at the latter part of the eighth month of pregnancy, when she began to suffer rather severely from gastric irritation. She had throughout her pregnancy suffered much from nausea and irritability of the stomach; and at first the additional symptom was not thought to be of much importance; but as it continued persistently, and was the cause of great uneasiness, an eminent obstetric physician was consulted about her case. He saw her on the 15th of April, and took a very favourable view of it, considering that the gastric irritation was rather dependent upon the very nervous temperament of the patient, together with the period of pregnancy to which she had arrived, than anything else, and he advised a trial of sedatives, such as the hydrocyanic acid, the tincture of henbane and hop, in small doses, with the sesquicarbonate of soda. He did not consider that any unfavourable consequences would ensue. The remedies suggested were tried in various forms, without any material benefit resulting. On the other hand, the gastric irritation became more decided, and at times was very intense. Leeches and sinapisms to the epigastrium were now had recourse to, and other combinations of the remedies proposed were tried, together with opiates and purgative enemata, but still without much positive advantage. On the morning of the 18th of April, she complained of headache and symptoms of cerebral irritation, which were speedily followed by violent convulsions. Free depletion was now practised, and after a considerable quantity of blood had been abstracted, the convulsions were subdued; and although the patient continued throughout the day in a most precarious state, she gradually rallied, and towards the close of the following had greatly recovered, and appeared upon the whole to be going on very favourably. On the 20th her condition was still satisfactory; no convulsions had returned for thirty-six hours; the epigastric pain had ceased, and the patient complained only of depression and weakness. Towards evening symptoms of labour were observed, and in a short time she was safely delivered of a still-born child, without any hæmorrhage or any other unfavourable circumstance occurring.

Now here I would pause in the narrative, and would inquire whether these calamitous consequences, viz., convulsions, premature labour, and the death of the child, did not remotely and immediately spring out of gastro-intestinal irritation or disorder? and whether all the antecedent symptoms were not referrible to this cause, which had existed in a marked manner for many days before these occurrences took place? Can it then be doubted, that if this had been properly recognised and removed, that all the untoward events which were afterwards developed would have been averted? But in this case it is evident, that the gastric irritation was regarded too lightly; and the inevitable consequence of continued irritation in an organ so vital as the stomach, and possessed of so many sympathies, when concurring with pregnancy, was soon displayed in sympathetic irritation of the brain, and its usual sequelæ, cerebral congestion and puerperal convulsions. From this history, we may at least learn, that gastro-intestinal irritation cannot remain long in a severe or persistent form in a pregnant female, without being fraught with much danger; that vascular disease will sooner or later supervene upon such irritation, either in the organ primarily affected, or in some other which has sym-

pathetic relations with it—and this more especially in the brain and the uterus. Hence such consequences should, if possible, be anticipated; and if after the removal of applied causes of irritation in the stomach and alimentary canal by emetics and purgatives, and after fomentations, sinapisms, and sedatives, have been fairly tried and proved to be unsuccessful, it becomes imperatively necessary in these cases to abstract blood from the arm as a precautionary measure, proportioning the quantity to the strength of the patient's constitution, and the intensity of the local irritation, for thus only can vascular disease and its consequences be averted. Nor again is delicacy of constitution any objection to this proceeding; for, as a general rule, it is in the weakly, the delicate, and the anæmic, that local irritation most readily passes into congestive or vascular disease.

But to resume the narrative: the patient had been safely delivered, and for several days subsequently went on very well, much better indeed than could have been expected. Her appetite was good, she enjoyed her food, and slept well at night: the tongue was clean, and the bowels regular. Everything thus progressed favourably, until the seventh day after her confinement. She then saw some friends in the morning, with whom she conversed rather freely, and to whom she expressed herself highly pleased with her very favourable progress. At two P.M. she had dinner, which consisted, as on the preceding days, of fish, bread, and vegetables. This she appeared to enjoy very much, and it was afterwards ascertained, she partook of it very largely. Soon afterwards she felt faint and sick, complained of headache and became very nervous and excitable; so much so that the slightest noise occasioned her to start and feel alarmed. After a time she had uneasy sensations in the pelvic region, in the right hip more particularly, and back, and these soon extended down the whole of the right extremity. Unfortunately, the causes of these symptoms were not at first recognised, the state of the stomach and bowels was not carefully investigated, and the proper remedies were consequently withheld. The symptoms were attributed rather to the excitement and fatigue which had been produced by seeing her friends in the morning, and to her having exerted herself disproportionately to her strength. It was not then sufficiently considered that a large meal, eaten under circumstances of much physical exhaustion consequent upon the loss of a great quantity of blood, could have led to these results; and accordingly, under the impression I have mentioned, soothing calmative measures were adopted. Ice was applied to the head, and the patient was kept very quiet, in the hope that by rest and tranquillity her symptoms would pass away; but at the end of twenty-four hours she was not materially better: on the other hand, the headache and nervous excitability had increased, and the pain in the pelvic and abdominal region continued to be very intense. After the measures mentioned had been employed for some time, together with aperients, a trial of the Indian hemp was determined upon, at the suggestion of a very experienced practitioner. At first it appeared to have a good effect, subduing the pain and nervous excitement; but afterwards it became more and more questionable in its efficacy. The nervous symptoms, on the other hand, increased the restlessness, and sleeplessness became greater; and the whole of

the pelvic and abdominal organs were greatly disturbed. The pulse became quick, the tongue dry and brown, and there was occasionally a disposition to delirium. Additional advice was now sought for, and an eminent obstetric physician visited the case. The opinion he at first expressed was that no danger need be apprehended, and that the symptoms depended mainly upon weakness and nervous irritability consequent upon the previous loss of blood. Opium was especially recommended and given; but as the symptoms continued unrelieved after forty-eight hours, it was feared that the pelvic irritation had led, or would lead shortly, to the formation of a pelvic abscess. For some days the condition of the patient was most critical, and her sufferings were very great, notwithstanding the regular administration of opium. The whole of the chylopoietic and pelvic viscera were greatly disordered; the abdomen was tense, painful, and tumid; and the patient often delirious. After a time, throughout which there was much pain in the right hip, the superficial veins about the groin began to enlarge, and the corresponding extremity to swell, and this was followed by increased pain in the hip and groin of this side. In a short time, the symptoms of phlegmasia dolens became manifest, attended with excruciating suffering and additional constitutional derangement. The treatment throughout was of a soothing and sustaining nature. Opium was administered rather freely—the bowels and secretions generally were regulated—food and stimulants were regularly given—and local pain and suffering were relieved by fomentations and soothing applications. The progress of the case was slow, but upon the whole satisfactory; and after a protracted illness and convalescence, the patient may be said to have perfectly recovered, although still somewhat weak and depressed in health.

I have not attempted, in the foregoing details, to give more than a very general outline of this case, for to do more would be altogether incompatible with the limits of this paper. It has rather been my object to point out the order and sequence of the actions which followed upon gastro-intestinal derangement, and to show how readily even trivial errors of diet, in persons whose constitution or uterine organs are unduly susceptible, may lead to very serious consequences; and at the same time to show how necessary and important it is to discern and rectify such errors promptly and decisively, in order to avert these calamitous effects. Had the patient taken an emetic, and had the stomach been thoroughly disburthened of its load on the accession of the symptoms, which commenced after the dinner taken on the seventh day after labour, I am convinced that all the ulterior consequences which supervened would have been prevented. Of this I am more and more satisfied, the more I reflect upon the history and progress of the case, and consider it in connexion with others of which I have personal knowledge. That all the untoward consequences which followed in this case mainly depended upon, and arose from chylopoietic disorder, is, it appears to me, sufficiently evident; for the patient had been progressing most favourably up to this date, and gastric symptoms in the first place, and intestinal in the second, were the first to declare themselves, whilst all the subsequent phenomena which occurred may be readily and legitimately deduced from such

chylopoietic disorder. Nothing, indeed, appears to me more certain than that if food be eaten incautiously, when the digestive organs are much enfeebled, either by disease or constitutional causes, that digestion will not properly go on, and that the undigested food will become an irritant to the alimentary canal, and as such, a cause of various constitutional disorders, their severity being proportioned to the degree of general weakness or irritability which may prevail.

Let it then be remembered, that whether during pregnancy or the puerperal period, whenever it is possible or likely that applied causes of irritation exist in the stomach or alimentary canal, that evacuant measures should precede and take the place of all others; for nothing can compensate for their omission when such causes exist. The employment of emetics during both these periods, when circumstances require them, is perfectly safe, as I have verified in a number of cases. Indeed, the action of full vomiting during pregnancy is infinitely less trying or dangerous to the patient, than the incessant retchings with which some females are tormented throughout the greater part of pregnancy, and in spite of which they do well. In illustration of this, and in order to place the results of such practice in apposition with those in which these measures have been omitted, I subjoin the particulars of the following cases.

CASE. Mrs. R.—11, seven months advanced in pregnancy, was attended by me, October 5th, 1849. She had been suffering throughout the day from headache, flushing of the face, tension of the forehead, noises in the ears, occasional numbness and convulsive catchings in the fingers. These symptoms were attended with, and had been preceded by, nausea and a disposition to sickness, from which she had suffered, more or less, for several days. The stomach was so irritable, that scarcely anything would stay upon it; the bowels were constipated and flatulent, and she had uneasy sensations in the uterus, back, and hips, with occasional forcing pains, which threatened to end in premature labour. These symptoms appeared to have been connected with, and were remotely attributable to, mental anxiety and trouble, consequent upon which, and the co-existence of pregnancy, the stomach and digestive organs had become irritable and disordered. The presence of marked gastro-intestinal derangement under these circumstances, suggested to me the necessity of giving at once an emetic, after which an alterative was ordered, and subsequently she was directed to take a mixture containing Epsom salts, in an acidulated infusion of roses, by teaspoonfuls, until purging should take place. The next day, the patient was in every respect better, and tranquillity had been restored to the digestive organs, and to the constitution generally. The emetic had occasioned profuse vomiting, and a great quantity of sour offensive matter had been thrown up, which was followed by a subsidence of the sickness and gastric irritation. Subsequently the alterative and aperient were taken, and when purging had taken place, she was relieved of all cerebral and uterine uneasiness. She had no further recurrence of either, but continued to progress favourably, and at the full period was safely delivered of a healthy child, without any unfavourable occurrence taking place.

CASE. I visited a lady at 3 A. M. on the 28th December 1847, who was four months advanced in pregnancy with her first child, and

who, it was reported, had been suddenly taken ill. She had fainted away, and had entirely lost all consciousness, and this without any very obvious cause. When I saw her, she was in a state of profound coma; her head was hot, the pupils contracted, and her pulse quick. She moaned frequently, and occasionally threw her hands instinctively to her head: she was, however, incapable of speaking, and no information could be obtained as to the history or cause of the attack. A medical gentleman, who had seen her before I arrived, and who was still in attendance, had given a full dose of calomel, had applied cold lotions to the head, and had also administered sal volatile in water, but hitherto without any beneficial effect. The absence of vascularity of the conjunctivæ, the contraction of the pupils, the quickness of the pulse, together with the youth of the patient, her age not exceeding twenty-two, led me to regard the cerebral affection as one of irritation rather than of congestion; and after repeated inquiries, it was elicited from her friends that she had partaken during the day of some rather indigestible food. I had no hesitation, therefore, under these circumstances, in prescribing an emetic, which with some difficulty was administered, but the result was very satisfactory, and profuse vomiting of a large quantity of undigested food soon followed, after which the consciousness of the patient returned. She suffered for some days from the effects of the attack, but upon the whole may be said to have recovered very favourably, and at the full period was safely delivered of a fine healthy child. It should be mentioned, that while she was unconscious, she had occasional convulsive catchings of the fingers; and I afterwards learnt, that before she became unconscious, she had very uneasy feelings in the uterine region—circumstances which appear to point on the one hand to a threatening of convulsions, and on the other to miscarriage, which were both averted by the administration of the emetic.

I have placed these four cases in juxta-position, for the double purpose of pointing out the serious consequences which may ensue from gastro-intestinal disorder when the uterine organs are in a susceptible condition, and of exemplifying the safety and advantage of the particular treatment which I have recommended. In the two former cases, the consequences of omitting this were painfully evident, whilst in the two latter the advantages derived from it would appear less obvious if the contrast were less striking. My object, however, is not so much to pursue this subject as to make it subservient to another purpose, viz., that of directing professional attention to the influence of slighter and less obvious forms of chylopoietic derangement in the causation of uterine disorders. For if it is admitted that violent irritation of the digestive organs, such as was met with in these cases, can be reflected upon the uterine organs so as to give rise to the consequences which followed in the first and second and were threatened in the third and fourth, viz., premature labour or miscarriage, the death of the child and puerperal convulsions, then it appears to me reasonable to conclude from such facts, that slighter forms of irritative disorder of the stomach and digestive organs may also affect the uterine organs when in a less susceptible state, and so give rise to uterine derangement of a more subdued, but, at the same time, more persistent character.

The disorders in question present themselves in almost endless variety, from a degree of irritation which is so slight as to be scarcely perceptible to the patient or practitioner, to one which is so severe as to disturb the whole constitution. Between these opposite extremes there is every possible gradation, and each, in its particular degree, may occasion secondary disease of corresponding severity. In the uterine organs, we observe consequences which are commensurate with their intensity; and whilst these are sometimes so slight as to amount to little more than mere irritability of the uterus, leucorrhœa, and irregularity of the menstrual functions, in other cases we observe distressing forms of hystericalgia, profuse leucorrhœa, and excessive, irregular, painful, or defective menstruation, occurring as a consequence of similar causes, when of a more decided character.

But in the instance of the slighter of these forms of chylopoietic disorder, it too frequently happens that their existence, or relations to the uterine malady, are altogether overlooked; and the latter continues thus silently, but steadily, to progress, until vascular disease may have supervened, and rendered it painfully manifest. On the other hand, when the chylopoietic derangement is of a marked and prominent character, and cannot be overlooked, it equally happens that it is often considered to be a mere accidental or tributary complement to the uterine affection. By one it is regarded as a consequence, by another as an accidental complication, whilst by a third it may be altogether disregarded; and hence it follows, that its importance and its relations to the uterine affection are often lost sight of, or at least imperfectly appreciated. If I were, however, to state the impression which many inquiries on this subject have left upon my mind, I should say that, in at least fifteen out of every twenty cases in which uterine and chylopoietic disorders coexist, the latter is not only the antecedent, but the cause of the former, whilst in the remainder only, or in a like proportion, can it be regarded as a sequence, or an effect. I am perfectly aware of the difficulty which attends any investigation having for its object the determination of the relations of power, cause, and effect, in regard to any given phenomena. But I take it, that that which is invariably, or nearly so, the antecedent to any particular event, has strong claims to be regarded as its cause; that this claim is increased, if no other circumstance can be shown to stand in such relationship to the event; and that it is still further demonstrated that this antecedent is the cause, when the event by which it has been followed ceases for the most part with its removal. Upon these grounds then more particularly, am I led to uphold the correctness of the opinion which I have expressed, in regard to the relations which subsist between uterine and chylopoietic disorders when both coexist; for I believe careful and properly directed inquiries will tend to show that, in such cases, the latter has nearly in all cases preceded the former, and has often accompanied it throughout: whilst in the great majority it will be found, that the correction of this disorder will be followed by the cessation of the uterine, unless, indeed, vascular or organic disease shall have supervened in the latter, and so rendered it independent of the former.

In support of the correctness of this opinion, I would refer to the

table published in the earlier part of this paper,¹ from which it will appear that chylopoietic preceded uterine disorder in 82 cases out of the 100, and that no other circumstance can be found which has such relations to it. And it will hereafter be shown, that the results of treatment confirm the general inferences which are deducible from these facts: for it will appear, that the removal of the chylopoietic disorder is generally followed either by the cessation of the uterine, or by a marked improvement taking place in regard to it.

We have, however, various forms and degrees of chylopoietic disorders to consider in connexion with uterine diseases; some being so slight and insidious as scarcely to be recognised without very careful investigation, whilst others are of a very marked and serious character. And, before proceeding to adduce the cases upon which the views advocated in this paper are more particularly founded, it may be well to describe the more general symptoms by which these disorders are attended; to state the pathological conditions on which they may be supposed to depend, and the principles upon which their treatment should be conducted. This is the more necessary, because, if the truth and accuracy of the opinions contained in this paper are to be tested, as they should be, by the results of similar treatment in other cases, it is manifestly important that the symptoms of such disorders should be readily recognised on the one hand, and adequately treated on the other.

SYMPTOMS. The more common forms of chylopoietic disorder which occur in connexion with uterine diseases, and which are perhaps the most frequently overlooked, are characterised by the following symptoms: by certain deviations from the healthy state of the tongue, more especially on awaking in the morning; by a degree of fretfulness of temper or despondency of mind, which is unusual to the patient, and unwarranted by her circumstances; by some uneasy sensation, either constant or occasional, about the epigastrium; by some degree of irregularity in regard to the action of the bowels; by some unnatural appearances in the urine or stools; by variability of the appetite, which may be either excessive, defective, or depraved; by restlessness at night, and broken and unrefreshing sleep, whence patients arise in the morning with a feeling of weariness or fatigue. There is, also, often a disposition to blotches and eruptions on the skin; the feet and hands are often cold and clammy, and perspiration is readily induced by exercise.

Now, in regard to these symptoms generally, it should be observed that, unless they are carefully and diligently inquired for, the practitioner will often be led into error by the representations of the patient. In some, indeed, disorder of the digestive organs may have existed so long, as to have become habitual; and even when this is very considerable, it may be, and often is, set down by the patient as being natural or constitutional, and such as cannot have the least connexion with any coexisting local complaint. Again, when the gastro-intestinal disorder is less marked, the practitioner may be readily misled by the appearance of the tongue during the day, and the general statement of the patient, who may declare herself to be perfectly well, when she

¹ LONDON JOURNAL OF MEDICINE, November 1851, p. 985.

may be found on inquiry to have all the symptoms which denote chylopoietic disorder. Hence it becomes necessary to direct the patient's attention to those particular symptoms in detail, which, in the aggregate, indicate the presence of such disorder; and it will thus often be found, that the tongue is habitually dry, furred, or unpleasant, on awaking in the morning; that the appetite is uncertain and capricious, and the bowels irregular; that the patient is languid and listless, anxious and despondent; that the pulse is frequent and feeble, the heart's action readily disturbed; and that other symptoms exist, equally characteristic of an irritable or disordered condition of the stomach and digestive organs, although the patient may have represented herself as being in good health.

Of the several indications, perhaps the appearances of the tongue furnish the least fallacious and most ready test of the presence of gastro-intestinal derangement. Its condition, however, under different circumstances, requires to be carefully investigated, for it will often be found to be furred at the back part, when it is tolerably clean at the front and edges; its appearance, again, will vary at different periods of the day, according to the different states of the stomach, and various states of mind which may arise. Hence any casual examination of the organ may, and often does, lead to erroneous conclusions; and it becomes indispensably necessary to ascertain its general condition when the patient first awakes in the morning, when it will often be found to be dry, furred, or unpleasant, and this even persistently, although during the day it is tolerably clean. Such abnormal deviations, however, demand to be carefully attended to, for they are certain and conclusive indications of the presence of gastric irritation or disorder. If, for instance, the tongue is simply dry, and this habitually on awaking in the morning, we have evidence that there is at least a deficiency of the secretions of this organ; and if there is no local cause for this deficiency, or constitutional febrile disturbance coexisting, we may reasonably infer that there is a corresponding deficiency of the gastric and hepatic secretions, the consequence of gastric or hepatic irritation, of which this is probably but a sympathetic effect. When, again, the tongue is habitually furred or unpleasant, as well as dry, we may equally deduce from these circumstances, that the gastric and hepatic secretions are not only deficient, but at the same time unhealthy. And such scanty, irregular, or unhealthy conditions in regard to the secretions of the stomach and liver, may again be legitimately attributed to an irritable or disordered state of the nervous ganglia of the sympathetic, which are more directly in relation with these organs, and which more immediately influence or regulate their secretions.

PATHOLOGY AND TREATMENT. Thus we may, I think, correctly deduce, from a consideration of these circumstances, that the symptoms in question are more or less significant of a state of nervous irritability and weakness of the ganglionic nervous centres, whence the stomach, liver, and digestive organs are immediately supplied with nervous energy; that one of the primary consequences of this weakness and irritability, is a deficiency or depravity of the secretions which are ordinarily furnished by these organs, and upon which the healthy and proper performance of their functions mainly depends; whilst another consequence is, the production of various forms of disorder in regard

to these organs, as shown, perhaps, by pain, uneasiness, or some other kind of functional disturbance. Hence the indications of treatment, in such cases, should be to impart tone and vigour to the nervous system on the one hand, and to appease irritability and correct disorder on the other; whilst, at the same time, we adopt such measures as are calculated to improve and promote the secretions of the irritable organs.

But, in the first place, it is necessary that we should investigate the particular circumstances in which such weakness, irritability, and disorder may have originated; for these will often be found to have arisen from, or to be associated with, various constitutional causes, habits, customs, and modes of life, which will be but little amenable to medicinal treatment: and these must therefore be looked for and removed, before we attempt any specific treatment for the morbid conditions themselves. This, again, should be of a comprehensive character, having reference not only to the local affection, but also to the constitutional causes or disorders from which it may have sprung, and should comprise not merely medicinal measures, but these combined with proper care and attention to diet and regimen.

But, having premised such attention to the remote causes from which these disorders may have originated, and having removed these so far as they admit of being removed; having urged the necessity of relinquishing various habits, pursuits, and customs, which may have been prejudicial to health; having enjoined due attention to matters connected with regimen, the necessity of taking regular exercise, of keeping early hours, and having adequate rest and sleep; having also inculcated the necessity of proper dietetic measures, of adapting the quality and quantity of the food to the wants of the system and the powers of the digestive organs, and of observing regularity in regard to the periods of taking it,—it becomes a question to consider what therapeutic measures are indicated in these particular cases: and these can only be determined by considering what are the precise pathological states upon which these disorders depend. I have already expressed an opinion, that, in these cases, there is weakness and irritability of the ganglionic portion of the nervous system, leading to various functional disorders of the organs, and more especially to a deficiency or depravity of the secretions which they are destined to furnish, and upon which the proper performance of their functions depends. Hence it appears to me, that the indications of treatment should have reference more particularly to these circumstances, to weakness and irritability, on the one hand, and disordered action on the other; and the measures which are required for the cure of such pathological conditions, are more especially alteratives, tonics, and sedatives, which should be variously combined and exhibited according as these morbid states may more or less respectively coexist in different cases. On each of these remedies I will therefore proceed to make a few remarks, so far as they relate to my present subject.

I. ALTERATIVES. The employment of alteratives, so long as disorder continues, and more especially when this is denoted by a faulty or defective state of the secretions, appears to me to be of the first importance in the medical treatment of these cases; for, so long as this continues, so long it is hopeless to anticipate benefit from

tonics, or strength or vigour of constitution from food; for, inasmuch as digestion in a great measure depends upon the purity and sufficiency of the secretions, which are poured out by the digestive organs during the digestive process, it must follow that, when these are defective or depraved, it will be proportionately disturbed, and that the food, instead of being converted into healthy blood, will pass into various crude, hurtful, or unassimilable matters, which, instead of nourishing the body, will be a source of irritation to the nervous system, and of injury to the constitution. But, in the use of alteratives, the utmost caution is required; and the greater the weakness which may coexist with disorder, the more sparingly should they be given. Mercurials, judiciously administered, appear to subserve this purpose better and more certainly, perhaps, than any other medicines; but there are many cases in which their utility is questionable, and others in which their employment would be fraught with positive harm. The circumstances, then, which tend respectively to these results, require to be carefully noted and considered.

The action of mercury on the constitution as a remedial agent, has been a fruitful source of controversy in the profession, and cannot even yet be said to have been satisfactorily determined. It has been variously considered as a stimulant or sedative, both stimulant and sedative, an alterative and tonic; but its action and effects differ essentially from any of these, and must be regarded as *sui generis*. That its action, however, is primarily upon the nervous system, and more especially upon the organic or sympathetic portion of it, is, it appears to me, the most legitimate inference which can be drawn from a consideration of the various circumstances which attend and follow its administration. This action, at the same time, is of a peculiar and specific character; calculated, on the one hand, to produce irritative disorder where none exists, but to correct, neutralise, or antagonise such irritation when already existing. Thus, for instance, when mercury is administered, even in the mildest form and the most moderate dose, to persons whose digestive organs are in a perfectly healthy and tranquil state, and who have not been accustomed to its stimulus, it seldom fails to produce considerable disturbance in them, such as would arise ordinarily from a variety of causes, of which again, when so produced, it is eminently curative. The following case, which occurs to me, illustrates this remark. A rather delicate little boy was attacked with a feverish cold, attended with a furred tongue, and much disorder of the biliary and digestive organs: he had a good deal of fever, was restless, constipated, and had entire loss of appetite. On account of the evident disorder of the liver and digestive organs, three grains of calomel were at once given him, and with the most decided benefit. Before any purgative action had taken place, the tongue had become clean, the fever had subsided, and the child slept comfortably for the first time for several nights. The benefit attending the administration of the medicine on this occasion, led to its being subsequently given under other circumstances, and here with a very different result. The child was not now suffering from any manifest disorder of the stomach and digestive organs, the tongue was clean, and the appetite was tolerably good; but his bowels were somewhat torpid, and there was a degree of weakness and delicacy of health which was attributed in part to a torpid or irregular action of

the liver. Upon this view of the case, the same dose of calomel was given, which had been so salutary on the former occasion; but the effects were now of a very different nature, and violent irritative disorder of the stomach, liver, and alimentary canal were the consequences. The little patient became sick, purged, and extremely uncomfortable, the tongue furred, and much general prostration ensued. Now here it is impossible to suppose otherwise, than that these different effects were mainly dependent upon the absence or presence of irritative disorder previously to the administration of the medicine; for, where such irritative disorder exists, the specific irritation set up by mercury tends, as it were, to neutralise or antagonise it, and thus to restore a state of nervous equilibrium or tranquillity. Whereas, in the absence of such antecedent irritation or disorder, the action of mercury is productive of many disagreeable and often injurious consequences.

This principle of action is also shown in a variety of instances: thus, when there is restlessness or sleeplessness at night, as a consequence of digestive disorder—an effect which is of frequent occurrence—the administration of a few grains of blue-pill will often procure sound and refreshing sleep, such, indeed, as to impress the patient with the idea that some form of opium had been taken. But this effect appears to me to be only from the specific action of the mercurial having been antagonistic or curative of the irritation previously existing; for, if the same dose of the same mercurial preparation be given to the same patient, in the absence of such irritative disorder, it seldom fails to produce the most opposite consequences—to produce restlessness and sleeplessness, a dry, furred, or unpleasant tongue, and an uneasy condition of the stomach and digestive organs, together with disorder of the biliary and other secretions. Hence, it appears to me, we may deduce, from careful attention to these circumstances, some rules which should guide us in its administration in the treatment of those disorders of the stomach and digestive organs, which are under consideration.

And, first, we may learn that mercurial medicines should never be given in these cases, unless there is positive evidence of the existence of disorder, as shown more particularly by an irregular, faulty, or morbid condition in regard to the secretions; for it must be borne in mind, that many morbid states of the chylopoietic organs, which are unquestionably conducive to uterine disease, depend rather upon weakness and irritability than upon actual disorder. If, then, the tongue is clean and moist, especially on awaking in the morning, and the alvine discharges do not indicate a deficiency of biliary or intestinal secretions, the use of mercury will be found to be very questionable, if not fraught with positive injury.

Secondly, we may learn that, in the administration of mercury, the form of this medicine, and the dose, and the frequency of its exhibition, should be mainly regulated by the degree of irritative disorder which may exist. In proportion as this is slight, should the dose of the mercurial be small; whilst, in the severer kinds of disorder, it may be given freely, and with the utmost benefit. In the more trivial forms of these disorders, I believe that an occasional dose of grey powder or blue pill at bed-time will be sufficient; but this should be

continued until the disordered state of the secretions shall have been rectified; whilst, in the more decided forms of these disorders, it will be necessary to administer the medicine in larger doses and at short intervals. And so long as the condition of the digestive organs is carefully watched, and disorder is found to continue, so long may it be given with perfect safety and advantage.

Again; in those cases in which there is great disturbance of the stomach, liver, and intestinal canal, as indicated by incessant nausea and retching, by very manifest derangement of the secretory functions of the liver and stomach, and by much irritative disorder of the small and large intestines, together with febrile disturbance, the administration of calomel is far preferable to that of any milder preparation of mercury. It often, by its specific action upon the nervous system, or rather upon its ganglionic portion, produces such antagonism to the existing irritation or disorder, as to restore tranquillity speedily both to the digestive organs and the constitution, and thus to justify the remark which has sometimes been made, that calomel in large doses is a powerful sedative.

I infer then, from a consideration of these circumstances, that mercurial medicines are only useful in the treatment of dyspeptic affections, when there is clear and unmistakable evidence of the existence of disorder, and this not dependent upon merely applied causes within the alimentary canal which admit of removal, or on mental or other causes which are of a transient character; that the particular form of the medicine to be employed must be chiefly dependent upon the *degree* in which this disorder exists; that it may be continuously administered for longer or shorter periods, in doses proportionate to the severity of the disorder and its persistency or continuance; that in the slighter forms the mildest preparations, such as grey powder or blue-pill, are the best; whilst, in the severer and more acute forms of these disorders, calomel is preferable, often possessing a specific power of arresting or controlling such violent actions, and thus appearing to have the properties of a powerful sedative in such cases.

But, as I have remarked, it must be ascertained, in the first place, that such gastro-intestinal disorder does not depend upon the presence of applied causes of irritation, in any part of the alimentary canal; for the employment of mercurials in such cases is not only often unnecessary, but is sometimes prejudicial. To remove such causes, therefore, or, in other words, to ensure the regular evacuation of the fæcal contents of the bowels, becomes an important indication in the management of these cases; and this should be fulfilled by the most simple and lenient medicines. In all cases in which the constitution is weakly, the blood impoverished, or the digestive organs irritable, active purging is for the most part injurious, and is often attended by a marked aggravation of the uterine disorder. It often happens, too, that the bowels may be purged without being cleared of the fæcal matter which may be detained in them, and thus much harm may be done by the employment of purgatives, without this being compensated by the least possible good. The precise medicine, or combination of medicines, which will best effect the object in view, cannot always be determined in different persons, and therefore it is often better to leave it to the patient,

whose experience may enable her to decide best as to the particular form of aperient that should be employed. In one, a little castor-oil, taken at bed-time, will ensure the desired result; and in another, the milk of sulphur; whilst in some an aloetic or rhubarb pill, taken before or after dinner, will be found to be the most serviceable. Active purging, however, must in all these cases be avoided; and we may safely interdict the habitual use of such medicines as jalap, calomel, salts, senna, black draughts, etc.

II. TONICS. In the next place, it is necessary to adopt measures which are calculated to diminish weakness, on the one hand, and allay morbid irritability on the other; for many of these affections of the digestive organs may be said to be constituted almost entirely of these pathological elements, the amount of disorder being sometimes comparatively trivial, and such as would spontaneously cease, if weakness and irritability were removed. These conditions, then, require to be carefully attended to and corrected; and we have fortunately remedies at our command which subserve both these purposes. The first indication we can fulfil by the administration of various tonics; the latter, by medicines which have a sedative or tranquillising action upon the nerves, or upon the ganglia, whence the nerves of the disordered viscera are derived.

The administration of tonics in these cases is, for the most part, imperatively demanded; not only because the digestive organs themselves are weak and irritable, but because the tone of the nervous system generally is impaired, and because these conditions, for the most part, either originate from, or are kept up by, an impoverished state of the blood. From this cause, the constitution at large is depressed and enfeebled, the nervous system is morbidly irritable, and the digestive organs, participating in this general weakness and irritability, become either spontaneously or readily disordered by the operation of trivial disturbing causes. In the table, published in the former part of this paper, the proportion of cases in which anæmia coexisted with chylopoietic disorders is very considerable, amounting to 87 out of the entire 100; and if the statements and representations of patients could be implicitly trusted to, and correctly interpreted, it would appear that anæmia is a frequent antecedent, as well as concomitant of such disorders. Whether, then, we look to the pathological condition of the digestive organs in these cases, to the state of the nervous system with which they are associated, or to the character of the blood, we see in each and all of these circumstances, individually as well as collectively, a necessity for these measures, or such as are calculated to impart strength and vigour to the constitution, and improve the quality of the blood.

But the exhibition of tonics, just as the exhibition of alteratives and of aperients, requires much circumspection. They are, for the most part, inadmissible, when there is much coexisting disorder; they should be given guardedly when this exists in a moderate degree only; while they are most beneficially given where weakness and irritability are the sole pathological conditions which prevail. Again, the form of tonic to be given requires some consideration, as well as its dose, the periods at which it should be taken, and the nature of the concomitant uterine affection. In simple irritability and weakness of the

digestive organs, with which the uterine organs may have participated, and which would be characterised by slight uterine uneasiness, moderate leucorrhœa, and irregular or scanty menstruation, the use of iron is decidedly indicated, and it may be given largely. Probably of all forms, the citrate is the most eligible and efficient, and it should be given in doses averaging from ten to twenty grains, after each principal meal, daily. Where anæmia exists in a marked manner, as is often the case, the latter dose is by no means too large, and, taken as directed, it will sit easily upon the stomach, and occasion no unpleasant effects, whereas one-fourth the quantity, taken before meals, will often produce feverish excitement and headache. Concurrently with this medicine, it is necessary to give an occasional alterative at bed-time, when the tongue has been dry or furred on awaking in the morning; and the bowels should be regulated by some gentle aperient. Besides the direct action of iron upon the blood, which it tends rapidly to improve, it would appear, when so given, to have a specific action upon the nervous system, and more particularly upon the ganglionic portion; hence it will often happen, that the digestive organs will have acquired increased tone and vigour, and that the appetite and digestion will have improved, before the blood has become proportionately altered; and hence, also, an improvement will be observed in the condition of the uterine organs, before any correspondent change can have occurred in the blood.

Irritability and weakness, however, which chiefly indicate, and are benefited by the employment of tonics, seldom continue long without being associated with disorder; and this, if unattended to, will compromise the advantages which would otherwise result from their employment. Weakness and disorder are, in fact, distinct pathological conditions, and often opposed to one another; so much so, that what is curative of the one, will often aggravate or increase the other. In these cases, then, it is necessary to adopt a medium course; and when both weakness and disorder coexist, and require to be concurrently rectified, it is best to combine alteratives and tonics, adapting their relative proportion to the particular requirements of each case, according as either weakness or disorder may preponderate. When disorder greatly preponderates, it will often be the best practice to premise alteratives, aperients, and a restricted regimen and diet, before venturing on the exhibition of tonics. When, again, this is less severe, the two modes of treatment may be combined, alteratives being given at bed-time, while tonics are administered during the day; or, what will often be found to be more useful will be to give the milder tonics, such as the mineral acids, with small doses of the liquor hydrargyri bichloridi, until circumstances will permit the employment of the more powerful. Alteratives and tonics may, indeed, be combined in nearly all these cases with advantage; for weakness and irritability cannot long continue without being followed by disorder; and disorder, for the most part, arises from some antecedent weakness, either of the part or the constitution. Many cases appear to me to have been but little benefited by treatment, because the coexistence of these opposite pathological conditions had either been lost sight of, or not properly attended to or acted upon, in practice.

But the employment of tonics in these cases must be also regulated, in some measure, by the nature of the concomitant uterine affection; for it may happen that this may be such as to forbid their use altogether. In the case, for instance, of active congestion, in that of increased vascular action, and in that of hæmorrhage or menorrhagia, it may be that the use of tonics will be fraught with much danger, notwithstanding the existence of anæmia, by their tendency to perpetuate or increase such vascular actions. Again, there are other instances in which one form of tonic will be useful, while another may be detrimental. Thus in passive forms of congestion of the uterus, in similar forms of leucorrhœa, and in relaxed states of the uterine organs, the most useful tonics are those which are of an astringent character. In such cases, I have found the muriated tincture of iron of extreme efficacy; and it may be rendered less stimulating and more astringent by giving it in combination with the dilute muriatic acid; whilst neither of these medicines, separately or combined, is incompatible, chemically, with the liquor hydrargyri bichloridi. In such a combination, then, we have an efficient tonic and astringent suited to many forms of uterine disease, and calculated to give tone to the capillary system, when congestion or hæmorrhage depends upon local or constitutional weakness; whilst the addition of the liquor hydrargyri bichloridi renders it a mild alterative, suited also to those slighter forms of irritability and disorder of the digestive organs, which so often initiate and maintain similar pathological conditions of the uterine organs.

But lastly, there are cases in which extreme disorder of the digestive organs may coexist with extreme weakness, and in which the one morbid element cannot be treated altogether irrespectively of the other. On the one hand, the amount of disorder renders the use of the more powerful tonics, such as steel, quinine, and the vegetable bitters, altogether inadmissible, whilst the great weakness which coexists, renders the use of alteratives and aperients in some degree hazardous. Take, for instance, the case of a delicate, anæmic girl, whose menstruation has been checked by cold or fright. In such it will almost invariably happen, that the digestive organs will, in the first place, be very greatly disturbed, and that much constitutional derangement will follow upon this, and that it will also maintain a state of general irritation, which will be incompatible with a return of healthy uterine action. Here, if we have recourse to active treatment, such as the free use of mercury and purgatives, for the cure of the disorder, we shall do much harm to the constitution, by increasing the general weakness and irritability. Tonics, on the other hand, are equally inadmissible, from the coexisting disorder, the bad state of the tongue, and the presence of febrile symptoms. In such cases, however, we may do much good by adapting our remedies to the peculiar requirements of such cases. Thus in the mineral acids (and I refer more especially to the nitro-muriatic and the sulphuric), we have sometimes useful and appropriate remedies. With the former, the liquor hydrargyri bichloridi may be beneficially combined; with the latter, the sulphate of magnesia; and, in such combinations, we have a mild alterative and tonic, which is especially suited to those forms of disorder which are under consideration. In farther recommendation of these medicines, it may be added, that the former, given in lemon water, with syrup of

ginger, is almost as palatable as lemonade, and the latter, in the compound infusion of roses, is rather a grateful and agreeable medicine than otherwise.

III. SEDATIVES. The above measures comprehend, then, as it appears to me, those which are especially necessary for the fulfilment of two out of the three indications, which require attention in these cases. I observed that they were constituted, in a great measure, of three pathological elements, viz., weakness, irritability, and disorder. I have referred to the measures which are generally necessary for the purpose of diminishing the former, and correcting the latter; but it yet remains to consider what additional means can be had recourse to for the purpose of allaying morbid irritability; for, in many cases, this will continue in spite of alteratives and aperients on the one hand, or of tonics on the other, and will thus require to be specifically treated—if, indeed, we are possessed of any specific remedies for it. In some cases of the kind to which I refer, there may be acute pain at the epigastrium, or in various parts of the abdomen, constituting, in the first case, *gastrodynia*, and in the latter, *enterodynia*. But morbid irritability of the digestive organs may be manifested in other ways than by absolute pain: there may be simply *disquietude* or *discomfort*; a sensation of extreme weakness, or sinking at the epigastrium; the sensation of crawling within the intestines, together with many other sensations of an equally unusual character; or there may be an irregular performance of the alimentary functions, and a great disposition to *flatulency*, or *eructations*. These symptoms appear to be directly referrible to some peculiar form of *gastro-intestinal irritation*, not always dependent upon either applied causes of irritation, mere weakness, or positive disorder, and they are, therefore, not readily amenable to measures which would be curative of these. Fortunately, we have a class of remedies which meet the requirements of these cases; and which, in the absence of direct causes of irritation, extreme weakness, or positive disorder, are eminently efficacious. I speak of such remedies as *bismuth*, *hydrocyanic acid*, the oxides of various metals, and more particularly those of *silver* and *zinc*.

But of all these, there is none which appears to me to be so generally efficacious, and so curative of these forms of disorder, as *bismuth*. I have found it to allay nervous irritability of the stomach and digestive organs generally, more certainly and expeditiously than any other medicine; and, singular to relate, there is none which exercises such a sedative influence upon irritable conditions of the uterine organs, when these are met with as a consequence of *gastro-intestinal disorder*—a fact which alone tends to show, that uterine irritability and disorder is often but a reflected consequence of such *gastro-intestinal derangement*. In *uterine hæmorrhages* in particular, I have found it strikingly efficacious, and often curative of them, when *styptics* of various kinds had been tried, and had failed. This therapeutical fact is in accordance with another, which has been observed by *Sir J. Eyre*, who has found that the oxide of silver has also a powerful influence in restraining *uterine hæmorrhages* of various kinds—a power which it can only possess in virtue of its sedative action upon the *gastro-intestinal mucous membrane*, or more properly, perhaps, upon the *nervous ganglia*, whence this membrane derives its nerves. I cannot

doubt its efficacy in such cases, looking alone to the utility of bismuth in them; while it must be quite obvious that the action or *modus operandi* of both medicines, in the cure of these affections, must be of an analogous character. The efficacy of bismuth, again, is not confined simply to irritable or neuralgic conditions of the stomach. It is equally curative of irritable affections of the intestinal canal, such as pain, cramp, spasm, flatus, colic, or diarrhoea, when these are not dependent upon applied causes of irritation, or mere weakness or disorder, but depend upon morbid irritability of the mucous membrane, which, although not always, is, sometimes, a consequence of these causes, and as such, may continue long after they may have passed away.

The oxides of the metals are also serviceable in these cases, but more especially those of silver and zinc.

Hydrocyanic acid has enjoyed a considerable reputation in painful and irritable states of the stomach; but, as my experience of it has been more extended, I have become more and more sceptical as to its actual value. I was at one time impressed strongly with a sense of its utility, from the testimony born to its efficacy by numerous authors; but I have been so frequently disappointed in its effects, that I seldom trust to it alone, or administer it except in combination with medicines calculated to serve the same purposes. It is, however, a favourite remedy with many practitioners of deserved reputation, and therefore should not be hastily condemned: possibly its uncertainty may depend upon the manner in which it is prepared by different chemists, and its ready tendency to decompose, rather than upon any positive deficiency of curative power which it may possess.

I have thus noticed the chief indications which appear to me to require attention in the treatment of the disorders of the digestive organs which are under consideration, and the particular means by which these indications should be fulfilled. I have pointed out the co-existence of at least three pathological elements in these cases, namely, weakness, irritability, and disorder. I have, moreover, endeavoured to show that each of these conditions requires to be concurrently attended to and corrected; and I have expressed the opinion, that in proportion as these requirements are more or less perfectly accomplished, will our success in the treatment of co-existing or consequent disorders of the uterus be more or less perfect. But, it must be added, that the exclusive treatment of disorders of the digestive organs will not alone be curative of such diseases; because they often originate from, and are kept up by others, which, concurrently with those of the digestive organs, maintain a state of general irritability of the system which is incompatible with the return of healthy uterine action; and, if these causes in the aggregate are not adequately attended to and removed, their effects cannot be expected to cease. If anæmia, for instance, coexists with functional disorders of the digestive organs, its removal is as necessary for the cure of the uterine malady, as that of the former. The same remark applies to the coexistence of spinal irritation, which may, and often does, complicate these cases. To show that the disorders in question do really occur in the manner represented, that is to say, for

the most, in an associated form, I subjoin the following analysis of the cases previously tabulated, which gives the following result. Of the 100 cases of uterine disorders of various kinds, 97 co-existed with evident derangement of the digestive organs. Of these 97, in one this co-existed with spinal irritation alone,—in 64 with anæmia; in 22 with anæmia and spinal irritation; and in ten only did it occur without either spinal irritation or anæmia. Such facts point to the necessity of taking a comprehensive view of the causes of uterine disorders, and indicate one source of the difficulty and uncertainty which often attends their treatment.

But, before quitting this part of the subject, there is one pathological state of the alimentary canal which it is necessary briefly to advert to, because, either as a cause or a complication, it occasions or simulates uterine or ovarian disease. I refer to morbid conditions of the colon, whether dependent upon an accumulation of fæcal matter in it, flatus, or other causes. In these, the symptoms which are met with so closely resemble those of disease of the uterus or ovaria, that it is not always easy to discriminate between them; and it was only after having repeatedly seen the apparent symptoms of ovarian or uterine disease disappear by thoroughly unloading the colon, that I became convinced of the importance of this affection in connexion with uterine diseases. The particular condition of the colon to which I refer, has been treated of under the designation of “torpor of the colon”. It sometimes depends upon a more general disorder of the digestive organs at large, sometimes upon a deficiency of bile, or, again, upon general constitutional weakness, induced by sedentary habits, night-watching, anxiety of mind, and more especially anæmia. The consequences of these causes frequently is, that the tone and muscular power of the intestine become diminished and insufficient, by its peristaltic action, to overcome the resistance of the sphincter; and hence the evacuations are scanty, and never such as to thoroughly empty the bowel of its contents, although in some cases there may be diarrhœa. This state of the colon is denoted by uneasiness in the iliac regions, by much pelvic pain, which is more especially felt in one or both of the ovarian regions; there is also tenderness on pressure, and a feeling of fulness and resistance from the tension, or accumulation of fæcal matter or flatus in the colon, which will often give the idea of ovarian enlargement: there is, moreover, a weight and dragging in the back, a bearing-down sensation often felt in the uterus, and other symptoms, which clearly point to an irritable condition of this organ as the consequence of this affection. By the use, however, of appropriate aperients and tonics, tepid bathing, and a suitable diet and regimen, the evil may generally be overcome, and tranquillity will be restored to the uterine organs, notwithstanding that the condition of the colon may have existed for many months, and throughout have been the cause of much uterine uneasiness.

I shall next proceed to adduce those practical proofs of the correctness of the preceding views, without which what I have advanced might be very properly received with doubt and hesitation. I have hitherto, in treating of chylopoietic disorders as the cause of uterine affections, confined myself to an examination of those theoretical

considerations which support the views which I have expressed; and I have endeavoured to show that these are not only reconcilable with, but perfectly in harmony with, the facts and principles which have been observed and taught by Hunter, and some of the greatest masters of our art. I have also showed that many circumstances tend clearly to prove that these chylopoietic disorders not only accompany, but, for the most part precede, uterine derangements, and therefore that such antecedence was presumably not merely accidental, but that the former disorder was, in some degree, the cause of the latter. I now propose to strengthen this view, by relating the histories of various uterine diseases which have been treated in accordance with these views; and they will, I think, conclusively establish the fact, that many and dissimilar affections of the uterine organs, some apparently structural, will entirely disappear under the influence of constitutional measures alone, or with very little specific treatment: whilst others, in which extensive organic disease existed, may be rendered so far quiescent as not to disturb the health or comfort of the patient. I had at first intended to attempt some order in the arrangement of these cases; but as I proceeded with the task, I found this more and more difficult, and have finally relinquished it altogether. The fact is, we do not observe those conventional forms of disease in nature which are described in our systems of nosology; irritative disease, for instance, of the uterus, will in one case be manifested by pain, inquietude, and various uncomfortable sensations of the organ. In another, it will be chiefly manifested by leucorrhœal discharges, with little comparative uneasiness; whilst in a third case, irritation will be chiefly manifested by menstrual disorders. I have therefore relinquished the idea of arranging these cases according to their nosological characters.

But believing that irritative disorder is, for the most part, the cause of those particular actions, feelings, or sensations, by which disease of an organ is, for the most part, rendered manifest; and believing also, that even in those instances in which organic or structural changes have taken place, that an organ may yet perform its functions tolerably well, if such irritative disorder be corrected, I have made this consideration the basis of a distribution of these cases; and I have classified them in groups, according to the particular symptoms by which such irritative disorder was manifested. In the first group, I have placed those in which uterine disorder was chiefly indicated by leucorrhœal discharges; in the second, those in which it was principally shown by menstrual disorders; and, in the third, I have placed those in which irritative disorder co-existed with organic or structural disease of the uterus. I shall proceed to narrate cases in this order; and shall commence with those in which leucorrhœa more particularly preponderated over the other uterine symptoms.

(To be continued.)

Chester Place, Hyde Park Gardens, October 1851.