by the fact of no bile being detectable in the blood, even after the liver has been extirpated, as tested by Hernde. We have already seen that bile is essential to the formation of chyle, that is, essential to the life of the animal; and that the characteristic of chyle as distinguished from chyme, is the presence of oil globules and molecules of fat. Do we, then, push our argument too far in saying, that hydrogen is the peculiarly essential element in oil necessary to the nutritive and regenerative powers, seeing that the grand characteristic of oil is, that it is of all animal substances the *richest in hydrogen*.

We have thus endeavoured to show;—

1. That the main office of the liver is not to excrete hydrocarbonaceous matters, the result of the waste of the tissues; and therefore that its function is not vicarious with that of the lungs.

2. That the grand function of the liver is to *create* bile, without which bile the *nutrition* of the animal is impossible.

3. That the grand office of the bile is to create the oil globules and fat molecules, as they are found in the chyle.

4. That this oil is of a character different from ordinary oils, inasmuch as it is not only the most nutritious of all oils hitherto tested (cod-liver oil), but is, in short, an oil essential to the formative and regenerative processes (oil of chyle).

5. That in proportion to the relative size of the liver in the animal series, will be found the force of the formative and regenerative powers.

6. That although oxygen is essential to the vital force, yet one of its grand offices is to destroy tissues; and thus an *antagonism* may be said to subsist between the functions of the lungs and the liver.

7. That the liver has the power of decomposing water, and using the hydrogen thus set free for the creation of bile.

8. That, therefore, as the lungs may be called the oxygenators in animals, so *the liver may be called the hydrogenator in animals*.

ON THE RELATIONS OF UTERINE TO CONSTITUTIONAL DISORDER.

By F. W. MACKENZIE, M.D., Physician to the Paddington Free Dispensary for the Diseases of Women and Children, Fellow of University College, etc.

(Continued from p. 135.)

SECOND GROUP. CASES OF UTERINE DERANGEMENT MORE ESPECIALLY MANIFESTED BY MENSTRUAL DISORDERS.

IN this series, I have more particularly included cases of amenorrhœa, irregular menstruation, and menorrhagia; but, in doing so, I have felt some difficulty in determining the exact nosological position of various cases which I have met with. Thus the term amenorrhœa comprehends at least three varieties. Firstly, those known under the appellation of *emansio mensium*, where the discharge has not appeared at the ordinary period of puberty; secondly, those of *retentio mensium*, where the

discharge has been delayed or protracted beyond its usual periods, after menstruation has been established; and thirdly, those of suppressio mensium, where it has been interrupted when taking place at its ordinary period. These different divisions, I need not say, comprehend many cases of a very dissimilar character; and in deferring, therefore, to popular usage, and giving cases under this appellation, it will doubtless be found that some have been included whose pathological characters differ very widely. So, also, in regard to menorrhagia, a certain latitude has been taken, and such instances of uterine hæmorrhage have been introduced under the term, which were independent of organic uterine disease, on the one hand, or of pregnancy or its immediate consequences, on the other. I have done this, because it is not always easy to determine what sanguineous discharges from the uterus are to be considered as strictly menstrual, and what are independent of this function: and, moreover, because it appears to me, that the same causes which give rise to excessive menstruation, are also those which, in many cases, give rise to uterine hæmorrhage independently of it. Dr. Locock's experience is also accordant with this view; for, in an article on hæmorrhage, in a *Cyclopædia of Practical Medicine*, he observes, that those who have suffered much from menorrhagia, are also those who are peculiarly liable to suffer from uterine hæmorrhage, after abortion or parturition. Believing, then, that the causes of menorrhagia are, at the same time, often those of metrorrhagia, I have introduced them indiscriminately in the present series; excluding, on the one hand, all cases of uterine hæmorrhage which had occurred in connexion with pregnancy or child-birth, and, on the other, such as were connected with the presence of organic uterine disease, such as fibrous tumours, polypi, cancer, encephaloid, etc.

I. CASES OF AMENORRHŒA.

CASE. Louisa P—k, aged 21, applied at the Paddington Free Dispensary, suffering much uneasiness in the hypogastrium, which was always increased by standing or walking, and relieved by lying down. At times it would cease entirely, and again return in violent paroxysms. Occasionally she had a sensation of bearing down of the womb. She suffered slightly from leucorrhœa, and had not menstruated for three months. Before menstruation was interrupted, or she had any uterine symptoms, she was very much out of health. Her tongue had been very bad, especially on awaking in the morning. She awoke tired and unrefreshed; and had felt, for some time past, weak, low, and nervous. These symptoms had preceded the menstrual suppression by many months. On admission, she was evidently weak, and very much anæmiated; her tongue was furred, and her bowels were constipated; there was much tenderness, also, of the lower part of the spine; the uterine pain was severe, and recurred for the most part in paroxysms. She was ordered an alterative every second night, ten grains of the citrate of iron after each meal, and to have the lower part of the spine rubbed with the tartar-emetic ointment. On the 28th of May she was better, the tongue was pleasanter, and the bowels more regular. The ointment had produced pustulation over the spine, and the uterine pain was less persistent. On the 20th of June, she

was perfectly well in health ; the uterine pain was gone, as well as the leucorrhœa ; the tongue was clean, and she felt in every respect very well. Menstruation had not yet returned persistently. June 30th, she reported that menstruation took place on the 25th, without pain or discomfort, being rather more than a month from the date of her coming under treatment.

CASE. Hannah C—s, aged 23, single, applied at the Paddington Free Dispensary, March 28th, 1851, in consequence of not having menstruated for five months. Her menstruation had been immediately checked by her getting wet feet ; and, until this took place, she had been regular from the age of seventeen, when her first menstrual period took place. Her general health, previous to the suppression, was very bad. She was weak and nervous, and had been obliged to resort to medical advice. She had apparently been both dyspeptic and anæmic. On applying at the dispensary, she was very anæmic, nervous, and depressed ; she was also suffering from a catarrhal cold. She was ordered fifteen grains of the citrate of iron after each meal, and to put her feet every night into warm mustard and water. On the 26th of April, having regularly taken the steel, with an occasional aperient, she reported that menstruation had returned, with some degree of pain, on the 18th. Her general health had improved ; the tongue was clean ; and appetite was good. Previously to menstruation taking place, she had suffered much from leucorrhœa ; but since its restoration this had ceased.

CASE. Mary Ann B—t, aged 15, applied at the Paddington Free Dispensary, January 28th, 1851, in consequence of menstruation having stopped. She first menstruated at fourteen, but scantily, and only for one day ; and after this she had no menstrual appearance. At the time of this occurrence, she was engaged very closely at dress-making, and her health suffered from the confinement and want of air and exercise. She became very weak, nervous, and irritable, dyspeptic, and feverish. She awoke in the morning unrefreshed ; and her tongue was dry, furred, and unpleasant. She had not suffered from leucorrhœa, but had had occasional uneasy sensations in the uterus. She was now very weak and anæmic ; and her tongue was dry and furred on awaking in the morning, but apparently clean during the day. Five grains of blue pill every second night, and twenty grains of the ammonio-citrate of iron after each principal meal were prescribed. March 7th. She continued the treatment up to the present time. The steel had been taken generally twice a day ; and the pills, on an average, twice a week. Her general health was much improved ; the tongue was clean, the appetite good, and the bowels regular. Menstruation returned on the 5th of March.

CASE. Sarah S—e, aged 16, applied February 4th, at the Paddington Free Dispensary, suffering from menstrual suppression, together with severe headache, and general bad health. She had menstruated for the first time twelve months ago, and this took place twice afterwards ; but subsequently to this there had been no further menstruation. She had throughout been in a bad state of health, was very weak, and incapable of much exertion. Her tongue had been dry and unpleasant in the morning, and she generally awoke unrefreshed. Her symptoms on admission were those of anæmia in a severe form,

with much disorder of the digestive organs. She was simply directed to take four grains of blue pill every second night, with twenty grains of the ammonio-citrate of iron after each principal meal daily. On the 10th of March she was perfectly well. She had had no headaches or faintings for the last two weeks; her appetite was good, tongue clean, and bowels regular. Menstruation took place on the 4th of March, exactly four weeks from the commencement of this treatment.

CASE. Magdalen M—ll, aged 16, applied, November 16th, at the Paddington Free Dispensary, suffering from menstrual suppression, together with an aggravated form of anæmia, and irritative disorder of the digestive organs. She first menstruated at fourteen, and continued regular until four months ago, when she ceased to be so without any obvious cause. Prior to this, however, she was very weak and out of health; the tongue was occasionally furred of a morning, the appetite bad, and the bowels constipated. She also suffered severely from headaches, dyspnœa, and palpitation of the heart on making any effort. On admission, she had a loud venous bruit in the neck, and all the symptoms of anæmia in a severe form. She was ordered an alterative occasionally at bed-time, and twenty grains of the ammonio-citrate of iron after each principal meal. The bowels were to be regulated with castor oil. On the 26th of January menstruation had returned, and her general health was perfectly good; her appetite had returned, she had a good colour, and felt strong and well.

CASE. Mary Anne B—e, aged 17, applied at the Paddington Free Dispensary, December 3rd, in consequence of suffering from amenorrhœa. She first menstruated at thirteen, and was regular until a year ago, when menstruation became very irregular, sometimes returning every week, sometimes every six weeks, and each return was attended with much pain. Previously to this irregularity, her health was generally very bad. She had felt weak, low, and nervous; her stomach and digestive organs had been much out of order; the tongue dry and unpleasant of a morning; and the bowels confined. All this had been preceded by a great deal of mental trouble and anxiety. Two years ago she lost her brother, who was accidentally killed; and, twelve months previously to that, her mother died. For the last twelve months she had been in a very laborious situation, and had undergone much fatigue. She was now very anæmic and weak; her stomach and digestive organs were much disordered: she was hysterical and nervous, and suffered a good deal from leucorrhœa, with pains in the back. She had not menstruated for six months. She was directed to take five grains of blue pill at bed-time occasionally, and twenty grains of ammonio-citrate of iron after each meal. On the 27th of December, she was better; the tongue was clean, and the appetite good. As, however, the leucorrhœa continued, the citrate of iron was omitted, and the muriated tincture given instead, with dilute muriatic acid, and drachm doses of the liquor hydrargyri bichloridi. On the 4th January menstruation returned, and she felt in every respect perfectly well.

CASE. Mary Anne W—s attended, December 20th, suffering from amenorrhœa, together with anæmia and dyspepsia. She first menstruated when between twelve and thirteen years of age, and continued until six months ago, when she caught cold during menstruation, and since then had not been regular. Before this happened, her

tongue was habitually dry, furred, and unpleasant on awaking of a morning; she felt weakly and languid, and was incapable of undergoing much fatigue. On the suppression taking place, her stomach and digestive organs became additionally disordered, and remained so ever since. On admission she was much anæmiated, and was suffering from considerable disorder of the stomach and digestive organs, with much leucorrhœa. She was ordered to take an alterative every second night at bed-time, and the acidulated muriated tincture of iron, with drachm doses of the liq. hyd. bichlor., three times a day. On the 31st of December she was in every respect better and stronger; the tongue had improved, and she had gained colour. Menstruation returned the preceding evening, but was attended with a good deal of pain.

CASE. Augustine A—t, aged 23, applied December 3rd, 1850, suffering from amenorrhœa, pain in the uterus, bearing down, and leucorrhœa. She had not menstruated for six months, and the suppression, she thinks, was occasioned by getting wet feet. Previously to this, however, she was not in good health, her tongue had been dry and unpleasant of a morning, her appetite bad, and her bowels constipated. These symptoms were much increased on the suppression taking place, and had continued persistently ever since. She was also weak, and incapable of much fatigue. To take an alterative at bed-time occasionally, and twenty grains of the ammonio-citrate of iron after each meal daily. On the 18th of December, she reported that she had continued that treatment up to that date, that she felt perfectly well, and had symptoms of returning menstruation; the appetite was good, the tongue clean, and the bowels regular.

CASE. Eliza H—y, aged 17, applied at the Paddington Free Dispensary, November 12th, 1850, suffering from amenorrhœa, in conjunction with anæmia and dyspepsia. She first menstruated at fifteen. But her health at this time was very bad; her digestive organs were irritable and disordered; and she felt weak, and incapable of much exertion. Soon after this, her menstruation became irregular, and then ceased altogether; and she had not again been regular up to the present time. She was now very weak and anæmic, and her digestive organs were very much disordered. She was directed to take an alterative at bed-time occasionally, and the citrate of iron in full doses after meals; to regulate her bowels with castor oil. In little more than a week from the date of commencing this treatment, her health had greatly improved; her digestive organs had become more tranquil and healthy; and, with this improvement, her menstruation returned in a regular manner, and without pain or uneasiness.

CASE. Margaret R—n, aged 31, applied at the Paddington Free Dispensary, September 26th, 1851. She was suffering from occasional pains in the uterus, bearing down sensations, some degree of leucorrhœa, and very irregular and interrupted menstruation. She first menstruated at eighteen; but previously to this, as well as subsequently, she had suffered much from dyspeptic symptoms, a bad tongue in the morning, an uncertain appetite, and constipated bowels. Throughout, she has never menstruated regularly, but for the most part at intervals of seven and eight weeks. She married at eighteen, but never had any family; and on the occasion of her applying for

advice, had not menstruated for seven weeks. Her digestive organs were generally much disordered; the left colon was especially the seat of much uneasiness; and there was very acute pain and tension in the left iliac region, with constipation and a general fulness of the bowels. She was weakly, nervous, and incapable of much fatigue, and always awoke in the morning languid and unrefreshed. There was a loud venous bruit in the neck, and her inner lips and palpebral conjunctivæ were very pale. She had also marked tenderness over the lumbar and sacral regions of the spine. She was ordered to apply sinapisms nightly to the tender part of the spine, to take an alterative every second night at bed-time, and a draught three times a day, containing the trisnitrate of bismuth, citrate of iron, rhubarb, and sesquicarbonate of ammonia. This mixture had the effect of keeping the bowels regular, and relieving the flatus and tension of the bowels. The treatment was continued until the 21st October, and she then reported that menstruation had come on more naturally than it had ever done previously. She continued the treatment up to the 29th, and then reported that she had no uterine pain, uneasiness, or leucorrhœa; that her stomach and digestive organs were tranquil and healthy; and that she considered herself to be in perfect health.

REMARKS. It would be foreign to my purpose to discuss, in the present paper, the specific or proximate cause of amenorrhœa, or to consider how far it depends primarily upon an affection of the ovaries or the uterus. I shall content myself by observing that, in a state of health, a certain consent appears to subsist between the uterus and the ovaria; that this is necessary to the development and continuance of healthy menstruation; and that, although some of the local causes of amenorrhœa may directly or more immediately affect either the uterus or the ovaria individually, the majority are of a constitutional character, and react concurrently upon both, through the medium of their nervous endowments. What, then, is the nature of these constitutional causes? What are the affections of the general system upon which it most frequently depends? What are the relations of amenorrhœa to constitutional disorders?

And, in the first place, I would remark, that one of its most powerful predisposing causes is a morbidly irritable or susceptible condition of the nervous system at large—a condition which is sometimes met with as an inherent specific or original defect of the constitution, but more frequently as the result of various causes which tend to debilitate or depress the general health. Of these, I would more especially mention the influence of long-continued, severe, or exhausting diseases; a too artificial mode of living; irregularities of diet; sedentary or enervating pursuits; immoderate study; over fatigue; late hours; insufficient rest or sleep; a residence in unhealthy localities; and continued grief, mental emotion or uneasiness. These causes, sooner or later, seldom fail to produce an irritable condition of the nervous system, which is favourable to the production of various functional disorders. Under the influence of these causes it happens, that the uterine organs are imperfectly supplied with nervous energy; that the balance of the various functions of the body is readily disturbed, and that impressions, which, in a state of health, would be received without

any unfavourable reaction, become the cause of many local irritations, and consequent disorders. The same causes, again, tend to interfere with the process of sanguification itself; and thus the uterus, deprived of that pabulum from which its secretion is to be elaborated, becomes, under the influence of the menstrual effort, not only morbidly irritable, but, at the same time, incapable of furnishing that secretion which is best calculated to relieve such morbid irritability. Can it, then, be a matter of surprise that uterine irritation, thus set up and continued, should react unfavourably upon the constitution, and become the efficient cause of many secondary disorders? This state of the nervous system, then, especially demands attention in the treatment of amenorrhœal affections; and the difficulties which we often meet with in correcting it, constitute some of the principal difficulties with which we have to contend in the treatment of amenorrhœa. When, for instance, it is connected with mental and moral influences, which do not admit of removal, or with harassing or laborious pursuits, which cannot be relinquished, we can expect to do little more than to palliate. But, in other cases, much may be done by judicious measures, by such as invigorate the body, and act agreeably upon the mind and the nervous system; by the regular employment of cold bathing, the administration of bark, bitters, chalybeates, or other mineral tonics, and such attention to diet and regimen as is calculated to fulfil the indication which has been proposed.

Another predisposing cause of amenorrhœa is to be found in a defective or impoverished condition of the blood, which, like the state of the nervous system which I have spoken of, is sometimes met with as the result of original causes, but more frequently as the effect of various incidental circumstances, which tend to derange the general health. In the instance of females whose constitutional powers are not great, it is often met with as the mere consequence of the growth of the body, and the development of those changes which are incidental to puberty, of which the function of menstruation itself may be considered as one of the most important. But, however induced, whether from original or applied causes, it is almost invariably found to be followed by, or associated with, disorder of the stomach and digestive organs, which cooperates with it in giving rise to a state of uterine irritation which is incompatible with the maintenance of healthy menstruation. Thus uterine and gastric irritation are simultaneously set up, and by their reciprocal reaction on each other tend to disturb the whole constitution, and, in some cases, to give rise to that aggravated form of constitutional derangement which is known as chlorosis. In the treatment of this affection, then, it is necessary to bear in mind, and to rectify, the various collateral disorders with which anæmia may be associated; to endeavour to appease uterine and gastro-hepatic irritation, at the same time that we endeavour to improve the condition of the blood; and, concurrently with this, to correct such disorders as may have followed upon local or spinal irritation in any part of the body.

A third cause of menstrual irregularities, is the existence of functional or organic disease in remote organs. In the progress of severe or long-continued disease of any important organ, menstrual irregularity or suppression is almost inevitably met with; and I

may refer to affections of the lungs, and to phthisis in particular, as illustrating this remark. But I believe careful investigation will often lead to the discovery that menstrual irregularity is frequently excited, and continued, through the influence of mere irritative disorder of various organs or parts reflected upon the uterus, which are not always very obvious, and therefore require to be sought for to be recognised. Of these, one of the most frequent is gastric or hepatic derangement, which often occurs in a very decided manner, without being indicated by any very manifest symptoms.

I have referred to this subject more particularly in treating of chylopoietic disorders, in a former part of this paper; and would now merely observe, that a similar view has been taken by other writers. Thus Dr. Butler Lane observes, that, as the result of three years' experience and research, he is enabled to affirm, that an anatomical and physiological relationship exists, in the female, between the liver and the uterus; and that such relationship is apt to be disturbed by many disorders which primarily implicate either organ individually. M. Roche, however, takes a much wider view of the subject; and, in an article in the *Dict. de Méd. et de Chir. Pratiques*, tom. ii, p. 137, maintains that none of the predisposing causes of amenorrhœa are so powerful as the existence of any serious chronic disease, whatever may be its nature, whether chronic gastritis, or chronic pneumonia, or pleurisy; and so frequently does this species of cause appear to him to operate, that he pronounces that amenorrhœa is in nearly all cases but a symptom, and not a disease. Without going the length that is here contended for, the circumstance in question deserves to be carefully considered in medical practice; and it points to the importance and necessity of looking beyond the mere condition of the uterine organs, and to the state of the general health, in order to become acquainted with the causes and the proper treatment of amenorrhœa.

The cases which I have brought forward in this paper essentially support the truth of the foregoing observations. In nearly all, it would appear that amenorrhœa had been attended by constitutional weakness or derangement, an irritable state of the nervous system, a defective condition of the blood, and irritative disorder of the stomach and digestive organs, whilst their histories also tend to shew that in most cases these derangements had existed antecedently to the menstrual suppression. On the other hand, in those in which this occurred from the direct operation of causes upon the uterine system, it would appear that it had been rapidly followed by some form of constitutional disorder, which had attended it throughout, and to which may be attributed the production of a state of general and uterine irritation, incompatible with the return or continuance of healthy menstruation. I say this, because in all, on correcting the constitutional disorder, the menstrual functions were spontaneously resumed without any specific treatment. Whether then menstrual suppressions arise from local or constitutional causes, it is equally necessary to attend to and remove the latter; for, although the constitutional disorder may have been in the first place but a symptomatic affection, it is nevertheless calculated to react injuriously upon the uterine organs, and so to interfere with the return of their menstrual function.

II. CASES OF MENORRHAGIA CONNECTED WITH DISORDERS OF THE DIGESTIVE ORGANS.

CASE. Mrs. E. B. consulted me June 28th, 1849, under the following circumstances. About three months ago she had a miscarriage, subsequently to which she suffered much from menorrhagia, and for this more especially she sought advice. It was, however, evident that for some time previously to this miscarriage her digestive organs had been greatly disordered, that this disorder had continued throughout her illness, and was very marked at the time of her consulting me. Her present symptoms were the following: the tongue was greatly furred throughout, and was especially unpleasant on awaking in the morning; she slept badly, and felt languid and unrefreshed on getting up; her appetite was bad and capricious; she felt uncomfortable after eating, and suffered much from flatulence; her bowels were irregular, and for the most part constipated; her nervous system was irritable; she felt weak, and was easily alarmed. There was a loud venous bruit in the neck, and she had all the symptoms of a marked form of anæmia. Independently of the hæmorrhage from the uterus, there was a profuse puriform discharge from the vagina also, and this had led her medical attendant to suspect the existence of ulcerative disease of the cervix uteri. Believing, however, that the uterine disease was rather secondary to the disorders I have mentioned than idiopathic, I proposed, in the first place, a trial of constitutional treatment. Three grains of blue pill, and seven of the extract of henbane, were directed to be taken every second night, with a warm rhubarb draught the following morning; she was directed to use a tepid hip bath both night and morning, and to take ten grains of the citrate of iron with salines in effervescence three times daily. On the 4th of July, she was better; the uterine hæmorrhage was less, the tongue was cleaner, and the leucorrhœal discharge had also lessened; she felt stronger, and was more equal to exertion. On the 18th July, she was still better as regarded her general health; she looked better and felt stronger, the hæmorrhage had entirely disappeared, and her appetite was good.

CASE. Mrs. F. S., a young lady of rather delicate constitution, was attended by me in her first confinement on the 1st May, 1849; the labour was natural, comparatively easy, and over in about eight hours; no unfavourable circumstance occurred in connexion with it, and at the end of a fortnight I left her in every respect perfectly well. On the 11th June, I was again summoned to see her, in consequence of a somewhat profuse sanguineous discharge from the uterus having taken place, and continued for several days. I found her very much out of health, and in every respect in a very different condition to that in which I had left her; she was weakly, nervous, and very hysterical and anæmiated, and her stomach and digestive organs were greatly disordered. On inquiring into the history of these symptoms, it appeared that on account of some little apprehension on the subject of her child, the stomach and digestive organs had become very irritable and disordered, and that consequent upon this, uterine hæmorrhage had taken place. At the time of my visit, her tongue was much furred, her appetite was bad, and her bowels were flatulent and constipated. These symptoms, I found, had attended the uterine hæmorrhage throughout; and had evidently followed upon the digestive disorder. Under these

circumstances I did not hesitate to prescribe exclusively for this latter affection. For a week she was simply directed to take alteratives at bed time, with mild aperients in the morning; and under this treatment alone, in the course of the week, the uterine discharge had nearly disappeared. Seeing, however, that she was very anæmic, I now ventured to give the citrate of iron twice a day, in addition to the other treatment, which was directed to be continued at longer intervals. At the end of another week, the hæmorrhage had entirely ceased, and she was in every respect better; but I advised her still to continue the alterative and tonic treatment concurrently for some time longer. In the course of a short time, however, the hæmorrhage again returned, and I found that it had again been preceded by chylopoietic disorder, which appeared to have arisen from her having discontinued the alterative medicine and taken exclusively the tonic. I again pointed out to her my belief that the uterine disorder was a consequence of that of the digestive organs, and urged her again to revert to the alterative treatment which I had previously recommended. From this time, she regularly took it at intervals, until her digestive organs had become healthy, and concurrently with it she took also the citrate of iron. She continued to progress favourably, without any styptic being given, or any local treatment being employed, and has never had any return of uterine hæmorrhage up to the present time.

CASE. Rebecca G——r, aged twenty-four, applied December 3rd, 1850, suffering from almost continuous menorrhagia. She was confined on the 5th November, but her labour was neither attended nor followed by any particular hæmorrhage or any puerperal illness. It appeared, however, that she had never been quite free from a slight sanguineous uterine discharge; and at the time of her applying for advice, this had become very profuse. From her history, it appeared that previously to her labour she had suffered much from anxiety and trouble; that the tongue had been dry, furred, and unpleasant, both prior to her labour, as well as subsequently to it; she had also been thirsty and feverish. At the time of her applying to me, she had all the symptoms of severe gastro-intestinal disorder; the tongue was extremely furred, her appetite bad, and her bowels flatulent and confined; in addition, she was weak, low, and very much anæmiated. She was directed to take an alterative every second night at bed time, and during the day small doses of the muriated tincture of iron, with muriatic acid and the liq. hyd. bichlor. On the 20th December, she had perfectly recovered, without any specific treatment whatever. The tongue was clean, the appetite good, her bowels regular, and the thirst and fever gone; the hæmorrhage had entirely ceased, and she had no pain in the uterus, or discharge of any kind.

CASE. Matilda B——n, aged twenty-one, was attended by me the 23rd December, 1850, in consequence of suffering from profuse menorrhagia, which had continued for several days uninterruptedly. The history of it was the following: she had recently left France, and was living as nursemaid in a family in which she was a perfect stranger; on crossing the channel, it appeared that her stomach had been very much disturbed, and that she had incessant retching, without being actually sick. Soon after the passage, and while the stomach was yet much disordered, menstruation came on, and became unnaturally

profuse and persistent. Throughout this, her stomach continued very irritable and much disordered, her tongue was much coated, her appetite bad, and the bowels generally flatulent and constipated; the stools also were scanty and unhealthy. As the hæmorrhage was very profuse, gallic acid was given in the first place, together with alteratives and aperients; but as it became more and more certain that the hæmorrhage was a simple consequence of chylopoietic disorder, astringents were thrown altogether aside, and simply alteratives and aperients were given. Fifteen grains of blue pill were given in divided doses in the course of twelve hours, and a mild aperient subsequently; in twenty-four hours after this, the digestive organs had become more healthy and tranquil, and the tongue clean; with this change the menorrhagia ceased, and did not again return.

CASE. Elizabeth K—g, aged 44, attended at the Paddington Free Dispensary, January 21, 1851. She was suffering from extreme weakness and prostration, headache, and nervous symptoms, which were evidently connected with a severe form of anæmia, which was consequent upon profuse and persistent menorrhagia. Her history was the following. She was married at twenty-one, had had nine children, and had suckled each on an average upwards of a year. About fourteen months ago, she had a severe bowel complaint, which confined her to her bed for five weeks, and reduced her strength very much. Almost immediately after this she became pregnant, and throughout the whole of gestation suffered very much from ill health. In particular, she was very weak, and had marked derangement of the stomach and digestive organs; she was moreover on several occasions threatened with premature labour, each threatening being preceded and occasioned by an aggravation of the chylopoietic disorder. She stated also, that whenever her stomach was much disturbed from any cause, uterine uneasiness and a threatening of premature labour invariably came on. About five months ago she was confined, and had an easy labour, but ever since she had been suffering from increased weakness and prostration, and various nervous symptoms. Her tongue on awaking was habitually dry, furred, and unpleasant; the appetite bad; the bowels irregular, at times being costive, and at other times purged; they were also, for the most part, flatulent and uncomfortable. She continued to suffer for ten weeks after labour from a slightly coloured uterine discharge; and, although suckling, she now menstruated profusely every month. She had all the symptoms of anæmia in an aggravated form; was weak, nervous, and irritable, and had considerable disorder of the stomach and digestive organs; with this there was profuse menorrhagia, which was always increased by any aggravation of the gastric disorder. The treatment recommended was five grains of blue pill every second night, and small doses of the muriated tincture of iron, with muriatic acid and the liq. hyd. bichlor., during the day. On the 20th February, she had not been able to attend for three weeks in consequence of weakness: she had consequently taken no medicine during this period, and the hæmorrhage had returned severely. She was directed to renew the medicines previously ordered, and in addition, to take five grains of gallic acid every four hours. On the 26th February, the hæmorrhage was much better: the tongue and appetite had also improved. She was now directed to

take bismuth and citrate of iron three times daily, with the alterative occasionally at bed-time. From this time she rapidly improved in health: the menorrhagia disappeared, and it has not subsequently returned.

CASE. Mrs. H. M—y applied at the Paddington Free Dispensary in October, suffering from uterine hæmorrhage, which had continued almost uninterruptedly for three weeks. She had been confined eleven months ago, and was still suckling her child, and she was consequently weak, nervous, and anæmic. The hæmorrhage had been preceded, and was probably immediately occasioned by mental anxiety, and consequent upon this the tongue and digestive organs had become in the first place disordered. The lower part of the spine was very tender on pressure; the tongue was dry, furred, and unpleasant on awaking in the morning, but not obviously coated or disordered during the day. Her appetite was bad, the bowels flatulent, and, for the most part, confined. She felt weak, nervous, and depressed, and there was a loud venous bruit in the neck. She was directed to take five grains of blue pill every second night, and the citrate of iron, with bismuth, during the day, combined at first with gallic acid; to discontinue suckling, and to apply sinapisms to the lower part of the spine at stated intervals. In three days the hæmorrhage had ceased, but the tonic and alterative treatment was continued a fortnight longer. At the end of a month, she reported that she had had no return of hæmorrhage, and felt perfectly well. The tongue was clean; the appetite good; she felt less depressed and generally stronger, and also in good spirits. I have since seen her, and find that no return of hæmorrhage has taken place.

CASE. Mrs. Elizabeth J—s, aged 37, applied at the Paddington Free Dispensary, July 12th, 1851, in consequence of having profuse menorrhagia or metrorrhagia. She had been labouring under this affection for five years, and during the whole of this period had scarcely been a week free from some degree of uterine hæmorrhage. She could attribute it to no other cause than mental anxiety and trouble, which she said she had experienced much of. Throughout the whole of this period, as well as previously, her tongue had been habitually dry, furred, and unpleasant on awaking in the morning, but for the most part it was tolerably clean during the day. Her appetite was bad, and she had frequently pain at the epigastrium after eating. The bowels were also flatulent and confined; she was generally weak, nervous, and depressed, and felt languid and unequal to much exertion. These symptoms, I learnt, had preceded the uterine affection, and had continued throughout its progress. She had been under medical treatment almost constantly for the last five years, but still continued to suffer, with very little amendment in spite of what had been done. On applying at the Dispensary, she had all the foregoing symptoms in a very marked manner. Her digestive organs were very much disordered, and the lower part of the spine was also very tender upon pressure. On examining the uterus digitally, there was no disease discoverable either in the mucous membrane or the cervix uteri. The treatment recommended was therefore entirely of a general character; she was directed to take alterative doses of calomel and henbane occasionally at bed-time, and the sulphate of soda in half-ounce doses every morning, and to apply a blister to the lower part of the spine,

and to keep it open for some days with savine ointment. This treatment was continued for about three weeks. At the end of this period the uterine hæmorrhage had ceased, the digestive organs had become healthy, and the spinal irritation removed. Four months subsequently I again saw this patient, and learnt from her that throughout this period she had continued perfectly well. She had menstruated regularly and normally, without any disposition whatever to hæmorrhage.

REMARKS. Many writers have remarked, that in most cases of excessive menstruation the general health is greatly deranged. "There is", says Dr. Ryan (*Manual of Midwifery*, 4th edit., p. 346), "indigestion, flatulency, heartburn, pyrosis or water-brush, pains in the back and chest, loins, and extremities, lowness of spirits, and generally leucorrhœa, or whites. These symptoms point to the existence of chylopoietic derangement in a marked form, and it is important to determine whether this occurs as the cause or the consequence of the menstrual disorder." The cases I have recorded tend, I think, to determine this point, or, at least, to show that in a certain proportion of cases the symptoms in question, when met with in connexion with menorrhagia, are its antecedents rather than its consequences; and, inasmuch as the cure of the uterine disorder is often to be effected by that of the chylopoietic, without any specific treatment whatever, as was shown in several of the cases which I have given, it must follow, that it is not merely its antecedent, but its positive cause also. There cannot, for instance, I apprehend, be any doubt that in those the disposition to uterine hæmorrhage was in a great measure the consequence of gastro-intestinal derangement: this view is supported, both by their histories and the results of treatment.

But further, many collateral circumstances are in favour of this view. It was observed by Mr. Abernethy, that his observations in surgical cases led him to attribute many hæmorrhages to a sympathetic affection of the heart and arteries, excited by disorder of the digestive organs. He observes, indeed, that the whole capillary system of the body appears to be sympathetically affected by various states of the stomach. The connexion between uterine hæmorrhages and derangement of the stomach and digestive organs has been specially referred to by Dr. Ayre in his work on *Disorders of the Liver*. He has drawn attention to the fact, that many forms of *post partum* hæmorrhage depend upon it. He ascertained that in many of these cases the liver was especially affected, and that calomel was the most efficient medicine that could be employed; at first, he ascribed its efficacy in restraining uterine hæmorrhage to the evacuation of morbid matters from the bowels; but, he observes, further and more accurate observation of the colour and condition of the stools, of the course of the disorder, and the effects of the remedy, convinced him that such was not the case, and that the efficacy of the medicine arises from its alterative action upon the liver and other organs of digestion.

So also the cases which have been published by Sir James Eyre, in his *Practical Remarks on some Exhausting Diseases*, and his experience with oxide of silver as a remedial agent in uterine hæmorrhages of various kinds, would seem to bear a similar interpretation; for he has shown that this medicine, which has extraordinary power in allaying morbid

irritability of the gastro-intestinal mucous membrane, and as such is deservedly popular in the treatment of dyspeptic affections, is, at the same time, a valuable remedy in cases of menorrhagia. He observes, indeed, that he had found it superior in such affections to all means which he had employed during an active professional life of more than thirty years. The efficacy of bismuth in similar affections, under certain circumstances, which I have myself personally witnessed, is in favour of the same doctrine; and, indeed, I think it may be conclusively shown from these and a variety of other circumstances, that many forms of menorrhagia owe their origin chiefly to an irritable or disturbed state of the stomach and digestive organs, and that where these pathological conditions coexist, we are by no means justified in assuming that the latter is the mere consequence of the former. On the other hand, the history of such cases, if carefully investigated, will often demonstrate that it had rather preceded than followed upon it; and this circumstance, which is especially shown in the foregoing cases, is of extreme importance in practice, for by bearing it in mind, we shall avoid directing our remedies merely to an effect or consequence, whilst the original cause is overlooked.

(To be continued.)

Chester Place, Hyde Park Gardens, February 1852.

ON VASCULAR TUMOUR OF THE MALE URETHRA.

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THE subject of the present essay, for the materials of which I am indebted wholly to observations made by others, is one to which I venture to invite attention, not because the disease is of frequent occurrence, or perhaps possessed of much intrinsic interest, but rather on account of its relation to the condition of the female urethra, of which, in the last number of this Journal, I treated somewhat at large, and which is both of frequent occurrence and of considerable interest; and also on account of the relation which the disease of the urethra of both sexes bears to other, and analogous growths affecting different parts of the body, of which I hope to speak hereafter, and to which the present and preceding communications will therefore be introductory.

My attention was first drawn to the fact of the existence of the disease in the male urethra by a passage in Mr. Broomfield's *Surgical Observations*, in which the author asserts, that "he has seen fungi of considerable length from the orifice of the urethra, both in men and women". It is evident, from the observations which follow in reference to the "fungi" of the female urethra, that they can only be the ordinary vascular tumour of the meatus.