The symptoms & treatment of the diseases of pregnancy / by William John Anderson.

THE

SYMPTOMS & TREATMENT

OF THE

DISEASES OF PREGNANCY.

BY

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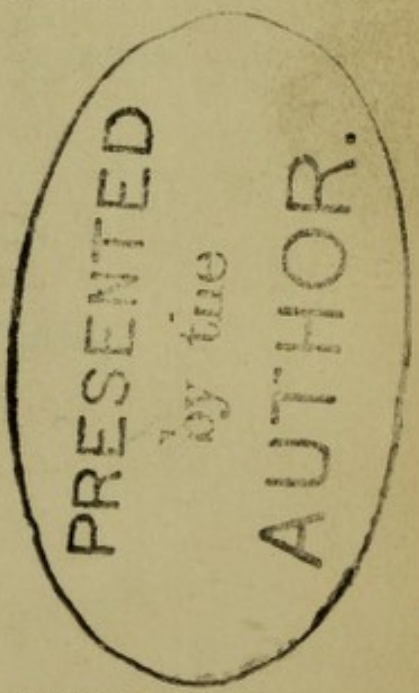

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MDCCCLII.

TO

ROBERT KEATE, ESQ.

SERGEANT-SURGEON TO THE QUEEN,

AND SENIOR SURGEON TO ST. GEORGE'S HOSPITAL,

This Book is Dedicated,

AS A TRIBUTE OF SINCERE RESPECT,

BY HIS FRIEND,

THE AUTHOR.

PREFACE.

In the following pages, the author has attempted to describe, briefly, the disorders incident to the pregnant state, together with their appropriate treatment. Many of these affections, it is true, are of a comparatively trivial nature, merely amounting to inconvenience, and totally unattended with danger; nevertheless, even these admit of relief, and not unfrequently, by a little timely advice, much suffering may be avoided, and the supervention of more alarming symptoms warded off. There are, however, other affections, occurring at this critical period, of the most severe and dangerous description, involving the safety both of mother and child, for the preservation of whom the most

prompt and energetic treatment is required. The subject is important; more especially when we consider that we are not merely affording relief to that fair and gentle sex which must always demand our sympathy, but we are affording it at a delicate time, when danger threatens the future offspring, so dear to an expectant mother, and destined to be her solace under suffering, causing her to forget her pain, "for joy that a man is born into the world."

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It is well known that strong nervous sympathy exists between the uterus and other abdominal viscera, which is not confined to these only, but extended to every part of the body, by means of the intimate connexion maintained between the sympathetic and cerebro-spinal system of nerves.

The numerous dissections of Dr. Robert Lee have clearly and indubitably proved that the uterus is supplied by a large system of nerves, consisting of ganglia and plexuses, which, as well as the blood-

vessels and absorbents, enlarge with the gravid uterus during pregnancy, and return to their original condition after parturition has taken place. In Dr. Lee's own words, "it is chiefly by the influence of these nerves that the uterus performs the varied functions of menstruation, conception, and parturition, and it is solely by their means that the whole fabric of the nervous system sympathizes with the different morbid affections of the uterus. If these nerves of the uterus could not be demonstrated, its physiology and pathology would be completely inexplicable." It is not the object of the present work to enter into a detailed account of the uterine nervous system; for this, the reader must refer to the elaborate description given by Dr. Lee himself: let it suffice, that through this system, that sympathy exists between near as well as distant parts, which gives rise to so many of the symptoms about to be described.

When pregnancy occurs, it is generally attended with some slight constitutional disturbance; there is necessarily local congestion, a determination of blood to the uterus for the support of the embryo contained within it. The consequence of this increased local action in so important an organ, and one so liberally supplied with blood-vessels,

nerves, and absorbents, is, that various symptoms arise affecting the system at large; neither is it difficult to understand this, when we take into consideration the intimate connexion which exists, not only between every part of the nervous system itself, but between it and the circulating system; it being impossible for one to suffer without the other being almost simultaneously affected. A proper supply of healthy blood is necessary for the maintenance of nervous action, and a due supply of nervous influence is requisite for the support of the circulation of the blood.

In addition to this local congestion of the uterus during pregnancy, we have for the most part, though not invariably, a state of moderate general plethora: there being under the circumstances a greater demand for blood, there is also a tendency to the formation of an increased supply of that important fluid. The whole nervous system is also affected, and in consequence of these two causes combined, an irritable (for in ordinary healthy cases we cannot call it febrile) state of system is induced.

The symptoms produced are various in their nature, and moreover frequently vary in different subjects as to the time of their occurrence; thus,

one will suffer most during the first few months, all unpleasant feelings passing off as soon as quickening occurs; whereas another woman may perceive no inconvenience during the first period, but in the latter months may suffer severely, being relieved only when delivery takes place; again, some suffer through the whole time, from the beginning to the end.

Now, as the unpleasant symptoms occurring during pregnancy arise from the state of the uterus, then performing its natural and most important function, as long as they continue in moderation, they cannot be termed diseases; they are in fact indications of the healthy act of conception, and should not, as a general rule, be interfered with; they may in some cases be palliated, but no violent means should be resorted to in order to remove them. They, however, in some cases become so much increased in severity or protracted in duration, that they may justly, together with certain unusual ones occasionally arising, be termed the diseases of pregnancy.

The diseases of pregnancy may then be divided into—first, those which depend upon nervous sympathy and derangement of the circulation; secondly, those arising from mechanical pressure

of the enlarged uterus upon the circumjacent parts; thirdly, affections of the uterus itself or its contents; and lastly, there may be certain accidental concomitants, not in any way dependent upon pregnancy, but being accidentally present during its existence.

DISEASES DEPENDENT UPON NERVOUS SYMPATHY AND DERANGEMENT OF THE CIRCULATION.

VOMITING.

The morning sickness, as it is popularly termed, is, generally speaking, one of the commonest and earliest symptoms of pregnancy; it frequently commences as soon as conception takes place, and continues up to the time of quickening, when, in most cases, it ceases. This rule is not, however, invariable, for the sickness is not always confined to the morning, neither does it in all instances occur during the earlier months; it sometimes does not occur until after the fourth month, and at others, having commenced immediately after conception, it continues up to the period of parturition. Where this symptom is of moderate degree, it may be

looked upon as a natural effect of conception, requiring no means for its removal; but sometimes it is exceedingly violent, continuing for a longer time than usual, and by the effects it produces placing the patient's life in the greatest jeopardy. The irritability of the stomach is in some cases excessive; so much so, that all food as soon as taken is rejected, and great weakness and emaciation are the result; under such circumstances, the patient, if left to herself, may die, completely worn out by exhaustion and debility, or labour may come on prematurely, accompanied by severe hæmorrhage, which in her weakened condition would most likely prove fatal.

In the treatment of this affection, our main object is, if possible, to allay the irritability of the stomach; but this unfortunately is in many instances no easy matter. Opium, so generally useful in allaying irritation and tranquillizing the system, is here of little or no avail; in fact, there being many objections to its use, as a general rule, during pregnancy, and so little if any benefit to be expected from its administration in these particular cases, it is better not to employ it. Effervescing salines, frequently repeated, are often of service, and should not be at once discontinued because the

first few doses are not retained. If there is no diarrhœa present, small doses of sulphate of magnesia frequently do good; light bitters and alkalies or hydrocyanic acid and carbonate of soda are sometimes extremely beneficial. Cold water is occasionally recommended, but I cannot help thinking that this has no other effect than that of rendering the act of vomiting more easy. The state of the bowels should be strictly attended to, and diarrhœa checked or constipation removed by appropriate remedies, if present. If there be much pain in the region of the stomach, leeches should be applied, or it may be necessary to take blood from the arm if the symptoms are such as to justify its abstraction. We must, however, in all cases, be guided by the peculiar nature of the case and the condition of the patient, it being impossible to lay down any positive rule.

In many cases, as before stated, all food is rejected, and consequently the patient suffers from inanition; under such circumstances much good may be done by noticing at what time the stomach is most irritable, (as this is often periodical,) and choosing another time for eating. The quantity and quality are also most essential things to attend to; a small quantity of some bland nourishment often

repeated will frequently be retained, whereas a larger portion would be immediately rejected. Liquid food is for the most part objectionable, as a larger quantity is necessary for the support of the patient, and the stomach is far too irritable to bear the slightest distention. Should all food taken by the mouth be obstinately rejected, eating may be abstained from, and nutritious enemata employed for a time.

After a fair and persevering trial of all remedies for the suppression of the complaint and support of the patient, and finding everything fail, there remains, as a last resource, the induction of premature labour; but this should never even be thought of, until we have grave reason for supposing life to be in danger from the continuance of the complaint; and surely, no man would be rash enough to perform such an operation on his own responsibility, without having a second opinion.

DIARRHŒA.

This symptom, when it occurs under ordinary circumstances, requires no different plan of treatment from that which is commonly resorted to for its removal independent of pregnancy; it is however sometimes violent in degree, protracted in

duration, combined with vomiting, or caused by inflammation, and consequently requires modified plans of treatment, according to the nature of the case. It must not be forgotten, moreover, that diarrhœa frequently depends upon the opposite extreme—viz., constipation, as a primary cause; the bowels having been neglected, the mucous membrane of the intestines becomes irritated by the hardened fæces, over which the watery discharge passes, they themselves, from their size and solidity, being unable to come away. In such cases it becomes necessary to break down the scybala by means of injections, or it may even require the use of the gouge for this purpose. The exciting cause having been once fairly removed, we may expect the complaint to stop.

Where the diarrhœa depends simply upon the nervous irritation induced by pregnancy, and is not violent, it may not require much attention; but where by its continuance it seems likely to debilitate the patient, we may administer the mistura cretæ, together with opiate enemata; or should this fail, much more certain benefit may be derived from the decoctum hæmatoxyli, combined with catechu and a few drops of laudanum. As the hæmatoxylum renders the motions red, the patient

should be informed of the fact, as great alarm is otherwise often experienced at the appearance of that which is supposed to be blood. An occasional dose of rhubarb and magnesia may be of service where the dejections are fetid, or where any irritating substance is suspected to exist in the alimentary canal. In some cases the diarrhœa depends upon chronic inflammation of the mucous membrane of the intestines, and then becomes a truly formidable malady; it is extremely obstinate under such circumstances, and will occasionally, even with the best management, terminate fatally. Venesection, if necessary, or the local abstraction of blood, followed by blisters, together with the various remedies requisite in ordinary cases of inflammation of a similar nature, must here be employed.

CONSTIPATION.

A constipated state of bowels is exceedingly common during pregnancy; and should this condition be neglected, it may give rise to many disagreeable symptoms, and sufficient irritation may be produced to cause premature labour. Independent of pregnancy, we all know the inconvenience and mischief that neglected constipation may

produce, the vast amount of gastric and cerebral disturbance which is caused by it; and then taking into consideration the peculiar state of system during this critical period, we may be fully aware that most ordinary evils are likely to be aggravated.

Doubtless in the latter months mechanical pressure of the gravid uterus serves to increase this symptom, but from the very commencement of pregnancy a tendency to it generally exists, long before the uterus has sufficiently enlarged to produce any effect of this kind. There is, during the whole period, great torpor of the large intestines, caused no doubt by the increased determination of blood to the uterus, and consequent detraction from the parts in the immediate neighbourhood.

As before mentioned, diarrhœa may be induced by constipation, and we may also have symptoms very nearly allied to dysentery; not that these are by any means peculiar to the pregnant state, but require greater attention in consequence of the existence of that condition. When it occurs in the latter months, it may, if neglected, give rise to protracted and difficult labour; it may be the cause of puerperal convulsions, or even of puerperal peritonitis, after delivery. Piles may be induced by it, or that still more painful affection

termed rhagades, or fissures about the anus, combined with spasmodic constriction of the sphincter ani muscle. Though this latter symptom is not by any means confined to pregnancy, but may rather be looked upon as a somewhat rare accidental concomitant of that state, I nevertheless think it not irrelevant to the subject, to enter somewhat more minutely into its description; as the plan of treatment about to be mentioned is, to the best of my knowledge, but little known in this country, and is certainly deserving of an extensive trial.

This complaint is common to both sexes, but is more frequently met with in females than in males; which may be accounted for by the neglect with which the former treat the state of their bowels, constipation being a powerfully predisposing cause. It commences insidiously with an irritable itching and burning, and pain fixed to one point of the circumference of the anus; defecation is attended with excessive pain, which continues for some time after its performance; the sphincter muscle is spasmodically contracted; and the most excruciating pain is experienced on introducing the finger or a bougie. All these symptoms increase; the pain becomes more and

more severe, lasts longer, and occurs at other times as well as during the act of defecation; the contraction of the sphincter becomes more powerful, the health of the patient begins to fail, and life is rendered wretched by such severity of suffering.

Numerous remedies have been employed for the relief of these symptoms; but I perfectly agree with the illustrious Boyer, that the most speedy and certain of all is the division of the constricted muscle. In speaking of this operation, he says, "Tous les malades sur lesquels j'ai pratiqué cette opération, sont guéris radicalement, complètement et sans retours des douleurs, de la fissure et de la constriction. Tel est le résultat de mes observations sur une maladie jusqu'à présent méconnue, et contre laquelle on a employé des remèdes très-souvent inutiles, quelquefois nuisibles, et presque toujours insuffisans."

The operation adopted by this great surgeon, and which is now generally performed, consisted in introducing the finger into the rectum, and upon it a probe-pointed bistoury, with which he cut through, "at a single stroke, the intestinal membrane, the sphincter, cellular tissue and tegument," thus producing a good-sized open wound.

Now, every surgeon must be aware that it is perfectly possible for this to be followed by a considerable amount of inflammation, and that if suppuration does occur in the loose cellular tissue around the rectum, it is an exceedingly awkward affair. This danger may be almost entirely avoided, and the operation much modified, by the following plan, which I learned from the late Professor Blandin:—

The instrument employed for this operation consists of a sharp-pointed, straight blade, with a flat sliding guard upon one side of it. This guard is rounded at the extremity, oval externally, and flat upon the surface lying on the blade. It is compressed against the side of the knife by means of a spring, and retained in its position by a slightly projecting pin, sliding in a groove upon the blade. The whole or a portion of the guard can be retracted within the handle by a button attached to it for that purpose.

The forefinger of the left hand is introduced into the rectum, and a small opening is made at the verge of the anus with the point of the knife. The guard is then protruded beyond the point, and the instrument carefully introduced through the wound into the submucous cellular tissue between

the mucous membrane and the sphincter ani. The cutting edge is then turned towards the muscle, the guard retracted, and the muscle cut through as the blade is withdrawn. If any doubt remains as to whether the muscle is completely divided or not, the instrument (guarded as before) may be re-introduced, and a second cut made in a similar manner, exactly upon the first. But if Boyer could cut through all the tissues, in his operation, at one stroke, surely we may do it also, especially when we have not the intestinal membrane and tegument to deal with. The small external wound should then be closed, and the bowels kept in a lax state by means of the confection of senna, given in sufficient quantities to render the motions moist; but purging should be carefully avoided. It may be as well to apply some unctuous substance locally, to prevent any irritation from the fæculent matter.

We have here, at any rate, an operation far less repulsive and formidable to the feelings of the patient, and certainly, in a practical point of view, attended with much less risk. The relief is as instantaneous as in the other operation, but no large open wound is left in the intestine; defecation can therefore be performed without the same amount of

irritation; and the cure is materially expedited, inasmuch as the parts are not kept in a state of disunion longer than is necessary for its completion.

The treatment of constipation during pregnancy does not materially differ from that which should be adopted at other times, with the exception of our being unable to administer strong cathartic medicine for fear of inducing premature labour. Scybala in the rectum must be broken down by means of enemata, or the gouge if necessary, and the action of the colon excited by a mild unirritating aperient. As soon as the bowels are fairly unloaded, irritability may be allayed by some gentle sedative, the strictest attention must be paid to diet, and the future state of the intestinal canal carefully attended to.

CARDIALGIA AND GASTRODYNIA.

Cardialgia or heartburn is an exceedingly common complaint during gestation, and seldom requires medical treatment, unless it becomes violent and obstinate, which it occasionally does. There is considerable heat of stomach, attended with constant, fixed, gnawing pain, which however is sometimes of a shooting character and very distressing.

These symptoms are accompanied by great acidity and extremely acrid eructations, at once pointing out the nature of the complaint and the proper method of treatment.

Gastrodynia, though generally speaking more transient, is far more severe in its symptoms, and is commonly termed spasm or cramp of the stomach. It is often sudden in its access, and its exciting cause may frequently be traced to some irregularity of diet; the action of cold will also induce it, as well as violent emotions of the mind. In this form there are violent neuralgic pains darting through from the sternum to the back and shoulders, and not, as generally in the other case, confined to the stomach; there is great distention and flatulence, and the patient is restless and anxious. It generally passes off under proper treatment, but occasionally it is somewhat intractable, and the attacks are frequently renewed. Gastrodynia may be sufficiently severe to bring on premature labour, or cause the death of the fœtus; and, both from this cause as well as from the great severity of suffering, it requires much more speedy and energetic treatment than cardialgia.

The treatment of cardialgia, after a primary clearance of the bowels, consists in the adminis-

tration of mild laxatives, together with bitters and alkalies; these latter remedies must be proportioned according to the severity of the symptoms, for if there be much acidity a larger quantity of alkali will be required to neutralize it. In common cases, liquor potassæ is exceedingly useful, and certainly preferable to the carbonate of potass or soda, inasmuch as it neutralizes the acid secretions of the stomach without evolving that quantity of carbonic acid gas which these other remedies do: in severe cases, the strong liquor ammoniæ, combined with calcined magnesia, is of great service.

In gastrodynia, a hot-water bottle, or, still better, a mustard poultice, may be applied to the epigastric region. Opium, with diffusible stimuli, should be given by the mouth, and a mild aperient enema administered per rectum. If the complaint is protracted, and the attacks of frequent occurrence, much good may occasionally be done by the use of hydrocyanic acid during the intervals between the paroxysms; but perhaps the best and most certain remedy of all is the trisnitrate of bismuth, either with or without magnesia, in some bitter infusion. The state of the bowels must of course be attended to, and the diet carefully regulated.

FASTIDIOUS TASTE.

Most women during the period of utero-gestation are subject to peculiar fancies with regard to certain articles of diet, and are, in common parlance, said "to be longing" for these things. There is a powerful female prejudice in favour of the prompt gratification of these "longings;" and so long as they do not point to things literally unwholesome, there is no reason why they should not be indulged. Some women, on the other hand, take great dislike to particular things; and certainly these antipathies need never, on any account, be interfered with.

AFFECTIONS OF THE BLADDER.

When we consider the close proximity, as well as the intimate nervous connexion, which exists between the pelvic viscera, it can be no matter of surprise that the bladder should be affected at this time. The most common affection is great irritability of the urethra and neck of the bladder, leading to a constant desire of micturition. Under these circumstances, the urine is voided frequently, in small quantities, and often with difficulty and pain. In addition to this, we find, in some cases,

that there is extreme irritability of the external organs of generation, attended with severe itching, which is always aggravated at night, and is exceedingly distressing to the patient.

Sometimes, though not so frequently, we meet with the opposite extreme; there is a torpor of the bladder, caused probably by the same cause as that formerly mentioned when speaking of a similar state existing in the large intestines. The urine is retained for a longer period than natural, and is then voided in larger quantities, though with some difficulty. This is a more serious complaint than the last, as it is possible for it to give rise to retroversion of the uterus, and consequently requires more prompt attention.

In the first of these cases, should there be much pain and tenderness about the pubes, general bloodletting may be requisite, or at any rate the local application of leeches, followed by fomentations; and perfect rest in the recumbent posture must be enjoined. Demulcents are of service, and much benefit may be derived from the administration of Pareira brava or uva ursi, in combination with an alkali. The bowels should be evacuated and kept gently open by means of laxatives, and great care should be taken to have the diet of a mild, unstimu-

lating nature. When irritation of the external genitals exists, the local application of cold should be employed; and fever, when present, must be allayed by appropriate remedies.

In torpor of the bladder, diuretics may sometimes be used with advantage; but the patient should be strongly urged to endeavour by her own natural efforts to empty the bladder more requently, and if these fail, on no account should artificial relief be delayed too long: the catheter must be employed, or serious consequences may ensue.

SPASM OF THE URETER.

This symptom sometimes occurs during pregnancy; it is marked by severe pain in the course of the ureter, and is often attended with most distressing strangury; in fact the usual symptoms of nephralgia calculosa are present, although they are not by any means dependent upon the presence of a calculus. Hysterical nephralgia is by no means uncommon, and this spasm of the ureter may be attributed to the same cause; in the first case the spurious nephritic attack is caused by some derangement of the uterus and its appendages, and irritation is set up in the nerves of the uterus and ovaria, and conveyed thence to the nerves

of the kidney; so also in pregnancy, the nervous excitement set up in the uterus is transmitted to the kidney and ureter in precisely the same manner.

Now, although there is no actual inflammation, neither is there a calculus present, the symptoms depending entirely upon nervous irritation, nevertheless prompt treatment is required, for the pain is severe, and pain (upon whatever cause it may depend), if sufficiently strong, is liable to induce premature labour. An aperient enema should first be administered in order to clear out the bowels, and this should be followed by an injection of starch and opium. Mustard poultices may be applied, and should the symptoms be very urgent, we may resort to the local abstraction of blood. Sedatives should be employed, and where severe strangury is present, camphor will be found extremely beneficial.

SYNCOPE.

Women in perfect health, as far as regards other symptoms, may be troubled with fainting fits during pregnancy, which may occur at any time, from the period of conception up to that of parturition, but are more common in the earlier months.

The cause of these fits may be in some cases traced to debility, induced by long-continued diarrhœa or any other weakening complaint, which might produce them independently of pregnancy: but where no such cause can be assigned, they may doubtless be attributed to that disburbance, both of the nervous and circulating system, which is always more or less present at this time. Their treatment does not, under ordinary circumstances, differ from that which is required for syncope at any other time; the recumbent position, with the head lower than the body, cold water to the face, ammonia to the nose, and exposure to cool air, is the usual and generally successful plan. If, however, the fit should be more than commonly severe and of long duration, care must be taken to maintain the heat of the body, diffusible stimuli administered, and all other necessary remedies employed in order to bring about the recovery as quickly as possible. When patients are subject to fainting, all causes likely to induce it should be sedulously avoided; and if any apparent constitutional cause exists, as for instance debility, appropriate means should be resorted to for its removal.

Burns has observed, "there is a species of syncope that I have, oftener than once, found to prove

fatal, in the early stage of pregnancy, dependent, I apprehend, on organic affections of the heart, that viscus being enlarged or otherwise diseased, though, perhaps, so slightly as not previously to give rise to any troublesome, far less any pathognomonic symptoms. Although I have met with this fatal termination most frequently in the early stages, yet I have also seen it take place so late as the sixth month of pregnancy."*

This is a totally different affection from that first mentioned, being caused by pre-existing organic disease, which has been called into vigorous action by the peculiar state of system at this time.

PALPITATION.

This symptom, though anything but dangerous, is nevertheless extremely distressing, and frequently is the source of considerable alarm to the patient. It may be produced by any excitement of the mind, as well as by derangement of the digestive organs; therefore it is necessary that the diet should be strictly regulated and the mind kept at rest where it occurs. The means to be used for the alleviation of the attack must vary according to the nature

* Burns' Principles of Midwifery, p. 235.

of the exciting cause; if it be dependent upon nervous irritation, sedatives and anti-spasmodics should be administered; whereas, if it arises from indigestion, accompanied with much flatulence and acidity, almost immediate temporary relief will be obtained by the administration of an alkali. During the intervals, the general health must be attended to, and any cause likely to give rise to the attacks must be removed, if possible.

DYSPNŒA AND COUGH.

Dyspnœa is a symptom very nearly similar to palpitation, both in its causes and effects, and is very frequently connected with it. Like palpitation, it is unattended with danger, but gives rise to very considerable alarm on the part of the patient; for the attacks are sudden, and attended with such extreme difficulty of breathing, that she imagines she is at the point of death. Hysterical subjects are peculiarly liable to this affection, and are easily cured by anti-spasmodics; it may also depend upon derangement of the stomach, and requires the same treatment as palpitation arising from similar causes.

During pregnancy we may frequently meet with cough, the result of common catarrh, amenable to appropriate remedies, and requiring no different

plan of treatment from that which is necessary for the same affection occurring at other times. There is, however, another form of cough, peculiar to the pregnant state, difficult to remove, and frequently remaining until parturition takes place. This cough is, generally speaking, dry and hacking, though it may sometimes be accompanied by mucous expectoration; occasionally it is incessant, and is the source of very considerable annoyance to the patient; in other cases it occurs in paroxysms of great severity, giving rise to great afflux of blood to the head, and causing violent shaking of the whole body, but more particularly of the abdomen.

Where the cough is short, dry, teasing, and constant, some relief may be obtained by the use of compound tincture of camphor; but where it occurs in severe paroxysms attended with the symptoms just mentioned, more prompt and energetic treatment is necessary, since premature labour is much to be feared as the result. Venesection may be required, or the local abstraction of blood by leeches or cupping; a blister may be applied, either between the scapulæ or on the sternum, and kept open for a time; the bowels should be regulated by laxatives, (not cathartics,) and the violent irritation must be allayed by the administration of anodynes.

MASTODYNIA.

During pregnancy, especially where it occurs for the first time, the breasts are often affected with much pain and tension: this may, in a great measure, be accounted for by the rapid increase of size and afflux of blood to those parts, which occur under such circumstances, rendering them prone to inflammation. Suppuration sometimes takes place in such cases, but requires no different treatment from that which is necessary at other times. Nature, in some instances, gives relief by means of a serous discharge from the nipple; but where artificial interference is necessary, the main object should be to relieve congestion and check inflammation, for which purpose an antiphlogistic plan of treatment is necessary.

SALIVATION.

This symptom occasionally appears during gestation, and seldom requires any sort of treatment; it is, however, in some cases very severe, so much so as to resemble mercurial ptyalism, but differing from this in the absence of fœtor. The employment of mild aperients to regulate the action of the bowels, seems to be the best plan of treatment, though sometimes counter-irritation may be requisite.

ODONTALGIA.

Toothache, under any circumstances, is an extremely distressing and painful affection, but more particularly so when it occurs during pregnancy, as it is then dependent upon the nervous irritation produced by that state, and consequently the removal of a tooth, if even justifiable, would not tend to alleviate the suffering. The extraction of a tooth is, however, altogether inadmissible, as such a proceeding is extremely liable to be followed by premature labour; and moreover the teeth, in many instances, are perfectly sound, not a single carious one being present. The general health must be attended to; and anti-spasmodics in combination with tonics are the most efficacious remedies.

PRURIGO.

Occasionally, women are affected with very distressing itching of the genitals: in some cases it merely lasts during the first few months, gradually passing off; in others it lasts during the whole time, but ceases as soon as delivery takes place. Cooling lotions applied locally are the most certain means of affording relief, and these should be employed principally at night, when the increased heat induced

by the bed-clothes aggravates the symptoms. Mild aperients may be occasionally administered, and of course everything at all likely to increase the general circulation must be strictly avoided.

MUSCULAR PAIN.

This is a symptom which requires but little treatment, though it sometimes gives rise to alarm on the part of the patient, from her being ignorant of its cause. There is frequently considerable pain in the muscles about the pelvis and hips, as well as those of the abdomen; this depends purely upon an irritable state of the nerves supplying them, and generally occurs after fatigue. Rest is the most proper and certain remedy; but should the pain be very severe and lasting, stimulating lotions may be rubbed on the back, or a blister applied. The abdominal muscles may also suffer pain from mechanical distention, and in this case, support by means of a bandage will afford relief.

CHANGES OF MORAL TEMPERAMENT.

Many women during pregnancy undergo a total change of moral temperament; and these changes, for convenience of description, may be divided into,

first, despondency; secondly, irritability; thirdly, hysteria; and fourthly, insanity.

DESPONDENCY.

It not unfrequently happens, that women, previously of a happy, cheerful disposition, become low and desponding, and possessed of the most gloomy apprehensions as to the result of their expected delivery. This condition undoubtedly depends upon the peculiar state of system existing during pregnancy, but may be induced in some instances by hearing of or seeing unfortunate cases occurring in friends, or by reading books of midwifery, and fancying that all the worst events therein related must of necessity happen to themselves. Fortunately this condition often passes off before parturition occurs, but sometimes it goes on, up to the termination of this event. Where it is thus protracted and very severe, the woman portending evil in a most determined manner, brooding over her dark anticipations, and refusing all sources of mental comfort, it is mostly attended with considerable derangement of the general health, and may be regarded in a very serious light, as it is far from improbable that it will be succeeded by mania after delivery has taken place.

The treatment of this symptom must be moral as well as constitutional; everything likely to depress the mind must be strictly avoided; solitude should be discouraged and cheerful society substituted for it, and the patient should be exhorted to rouse herself and endeavour as much as possible to shake off the state of depression under which she labours. The health must also be attended to, and any derangement rectified by appropriate remedies; in the more severe cases, the abstraction of blood, either local or general, may be requisite if there be any appearance of cerebral congestion; and the state of the bowels in all cases requires particular attention.

IRRITABILITY.

The changes induced in the system by conception sometimes give rise to irritation of mind instead of body; the patient becomes excited and irritable, and although perfectly conscious of this temporary change in her disposition, has little or no control over its demonstration, and every allowance should be made for a misfortune which is too often regarded as a *fault*, and considered to be perfectly under the command of the patient.

This symptom frequently passes off after the first

few months, though, like the one just mentioned, it may continue throughout the whole period of gestation, and, if severe, may be regarded with a similar suspicion; and a similar plan of treatment is applicable to both cases.

An opposite, and certainly where it occurs more desirable, state than this, occasionally shows itself, though for the honour of the fair and gentle sex, we will hope it is rare: the morose and irritable female loses her customary disposition, and for the time being assumes that mild and happy state which should be her natural one. Surely no one would wish to interfere with such a change.

HYSTERIA.

Hysterical symptoms sometimes occur, and when slight require no attention; neither do they demand any different treatment from that which is necessary at other times. They are, however, occasionally severe and protracted, continuing up to the period of delivery, which event is in such cases not unfrequently followed by mania.

INSANITY.

This symptom may occur at any period of pregnancy, from conception up to parturition, and

usually shows itself in females of a highly hysterical temperament, or in those hereditarily disposed to it. That it should arise in hysterical subjects is not at all to be wondered at, when we consider the strong resemblance of severe hysteria to insanity, and the difficulty which often exists in drawing the line of demarcation between the two. The kind of insanity which shows itself during pregnancy, differs, as a general rule, from that which occurs in the puerperal state; before parturition it is more slight, and generally assumes the form either of melancholia or of impulsive monomania, whereas after delivery we most frequently meet with acute mania; this does, however, occasionally appear during pregnancy, but is then of shorter duration. Insanity may come on immediately after conception has taken place, and may cease when quickening occurs, or it may go on through the whole period up to the time of parturition.

The main treatment in this, as well as in all other cases of insanity, must be moral; for without this, no constitutional treatment can be of any service whatever. Constitutional treatment must be regulated by the particular nature of the case; where plethora exists, an antiphlogistic plan must be adopted; but where it appears to be connected with

a debilitated state of system, this must be remedied by appropriate means; while local congestion is to be kept down by the application of cold to the head, or leeches if necessary.

HEADACHE AND CONVULSIONS.

Headache may occur during any period of pregnancy, and *per se* need not at all be regarded as a dangerous symptom; its origin may be traced to some ordinary cause, as a disordered state of the bowels, or dyspepsia induced by some irregularity of diet. Under such circumstances, an aperient, with attention to diet, will, as at any other time, remove this symptom. When, however, it occurs during the latter months of pregnancy, and is attended by evident signs of cerebral congestion, great danger is to be apprehended, and the treatment must consequently be prompt and energetic. This form of headache is not relieved, but aggravated, by the recumbent position, and is frequently attended by a sensation of giddiness, increased on stooping; the carotid arteries may be seen to pulsate with unusual force, the countenance flushes, and the eyes are suffused or heavy; and if relief is not quickly afforded by appropriate remedies, convulsions are tolerably certain to follow.

Convulsions may occur at three periods—during the latter months of pregnancy, during parturition, or shortly after delivery, though at none of these times do the symptoms essentially differ.

The paroxysm may be preceded by certain premonitory symptoms, which are not however invariably present. The patient may complain of a feeling of languor and depression, perhaps for some days, and experiences a state of malaise not easy to be described. There is drowsiness, with weight and pain in the head, occasional vertigo, and either bright sparks or muscæ volitantes floating before the eyes. Immediately preceding the fit the countenance changes, there is partial or total loss of sight or hearing, a vacant stare with dilated pupils, ringing in the ears, acute splitting pain in the head, with flushing of the face and neck, sickness, and uneasiness of stomach. The pulse, at first quick and full, afterwards becomes more slow, the neck, face, and hands appear swollen, there are spasmodic twitchings of various muscles, loss of consciousness, and the fit becomes fully developed.

The patient, now totally deprived of consciousness and sensibility, is seized with involuntary convulsive movements of the limbs, the face be-

comes livid or purple, the tongue is frequently protruded from the mouth, and being bitten by the teeth, the blood mingles with the white foam which in many cases issues from the mouth; the eyes are suffused, and may be either fixed in a vacant stare, with insensible pupils, or rolled convulsively; the action of the heart is much increased, and the respiration greatly affected, and often attended with a peculiar hissing. These more violent symptoms after a time subside, and the patient sinks into a semi-comatose state, which, in its turn, is again succeeded by a repetition of the convulsions. Thus those two states alternate, in most instances, with one another for many times in succession, until at last the patient recovers suddenly, and is totally unconscious of anything of the kind having occurred.

Recovery is not however so perfect as this in all cases; there may be either partial or total loss of sight, speech, or hearing, conjointly or separately, and numbness of the limbs, giving evident proof of the violent action which has been going on within the cranium. Such being the case, it is not to be wondered at, that we occasionally meet with effusions of blood or serum within that cavity, giving rise to a fatal result; sometimes, however, patients

die, literally worn out by the violence and long continuance of the attack, and in such cases we frequently meet with no visible trace of injury of the sensorium.

The above-mentioned symptoms are those most commonly met with; they however vary. In some instances the attack commences suddenly without any premonitory sign, the convulsive paroxysm at once showing itself in all its intensity. The number of the paroxysms differs; occasionally one only occurs, but this is rare; in general they are numerous, following each other in quick but irregular succession, insensibility and loss of consciousness continuing in the intervals. The intensity of the paroxysms also varies in degree, and in some cases assumes a perfectly tetanic form; and where a fatal result ensues, death may be caused either by apoplexy or exhaustion, induced by the violence and protracted duration of the attack.

There is another form of convulsions which might be more appropriately termed spurious convulsions, inasmuch as they are far more nearly allied to hysteria, and are not attended with or preceded by any signs of general plethora, neither is the same amount of local cerebral congestion present as in the true form, though this may to a certain degree

exist even in connexion with a positive state of anæmia; for local congestion, to a considerable extent, is anything but incompatible with such a state. This form occurs in hysterical patients, or in those who have been exhausted by any depressing cause; they are in fact suffering more or less from anæmia.

The symptoms differ in many essential points; the movements of the limbs are more violent, the eyes roll or stare with a wild expression, the pupil is not insensible, and though the eye may be unnaturally brilliant, it is not suffused; the pulse is hard and small, of a nature difficult to be described, but never to be mistaken by those who have felt it frequently during ordinary hysterical fits; the urine is voided in large quantities, and of a pale colour; we have also in many cases the corroborative testimony of the globus hystericus and borborygmus, in addition to the usual concomitants of screaming, crying, and sobbing, which take place under common circumstances. From this state the patient recovers in the same way as from an attack of hysteria occurring at any other time, and no bad results, as a general rule, are likely to follow.

The predisposing cause of this affection is undoubtedly the pregnant state, for during this period

there is necessarily an increased afflux of blood to the gravid uterus, and consequently an augmented state of nervous power; not but that I believe the nervous system is the first called into play when conception takes place, and, owing to the excitement of the uterine nerves, the circulating system becomes reacted upon secondarily; the necessary local supply of blood is furnished, and subsequently the two systems proceed in their temporarily increased force of action conjointly and co-equally.

It has been before stated, that during pregnancy there is a state of moderate general plethora; there being under the circumstances, a greater demand for blood, there is also a tendency to the formation of an increased supply of that important fluid. Now, in plethora there is an excess of the red globules of the blood, which contain a compound of iron having a strong affinity for oxygen, which gas is absorbed by them from the atmosphere in the lungs, passes to the heart, and is thence distributed to the whole body. In the systemic capillaries, the globules part with their oxygen and acquire the power of combining with carbonic acid, during which process animal heat is evolved. The amount then of animal heat is very much regulated by the quantity of the red globules

contained in the blood; and as all changes in the nervous system occur where its fibres come into relation with the vascular plexus, it follows that this system must be more or less affected by an abnormal increase of the red globules; the force of the circulation is augmented; the heart's action is increased by receiving blood too stimulating in its character on account of the excess of oxygen which it contains; and the nervous system being thus supplied with blood superabundant in quantity and of an improper quality, has its power greatly augmented, and acting in this state secondarily upon the whole circulating system, it supplies a morbidly increased amount of nervous influence, and thus keeps up the excited state of the circulation.

There are three causes tending to maintain the morbid action: first, the improper quality of the blood, from an excess in the amount of the red globules; secondly, the increased force of the heart's action; and thirdly, the augmented power of the nervous system.

All this may and does occur to a moderate extent, as the natural consequence of the pregnant state; but where, during this state, the plethoric condition becomes increased, a very slight cause

is sufficient to give rise to a morbid result. The uterus is abundantly supplied with nerves derived from the hypogastric and spermatic plexuses, as well as from the sacral plexus, and numerous large ganglia are situated in various parts of it, receiving nerves from these sources; these ganglia give off branches, which keep up a communication between themselves and distribute a rich network of nerves over the whole organ. Knowing then the connexion which exists between the sympathetic system of nerves and the cerebro-spinal, through the medium of communicating branches given off from the former to the anterior roots of the spinal nerves, it is easy to conceive how such a vast and powerful set of ganglionic nerves as the uterine, are capable of affecting the whole cerebro-spinal system. The entire nervous system, both cerebro-spinal and sympathetic, is intimately connected in all its parts, but at the same time is completely dependent upon, and therefore liable to be affected by any change in, the vascular system. The vascular system, equally connected in all its parts, is in like manner dependent upon, and liable to be affected by any change which may occur in, the nervous system; the two are in fact so closely related the one to the

other, that it is impossible for either to be affected without the other suffering almost simultaneously.

The true seat of reflex action is the medulla spinalis; it is here that the fibres of the sensory nerves become continuous with those of the motor nerves, and that irritation communicated to the former is propagated by this means to the latter, and involuntary motion is the result. The sympathetic system of nerves being intimately connected with the cerebro-spinal, any source of irritation affecting their peripheral extremities will be conveyed by their trunks to the spinal nerves, thence to the medulla spinalis itself, and reflex action will be called into play. However, in convulsions we have more than reflex action; there is not only involuntary motion, but total loss of consciousness, indicating that the cerebrum is affected as well as the medulla spinalis. Irritation is, without doubt, as readily conveyed by the medulla spinalis to the cerebrum as it is by the nerves to the medulla, and hence arises, to a considerable extent, the cause of the affection of the cerebrum marked by insensibility. Unfortunately, however, nervous irritation and vascular disturbance proceed together, and we find that local congestion is the result, not of the

cerebrum alone, but of the whole cerebro-spinal system; for as the nervous irritation proceeds from the lowest point up to the highest, so do I believe that to a great extent the vascular congestion follows it.

It must not be supposed that a state of general plethora is absolutely and essentially necessary for the production of convulsions; they occur in weak and debilitated subjects labouring under anæmia, and in such cases they seem to depend principally upon nervous irritation, though local congestion of the nervous system is also present, such a condition, viz., local congestion, being anything but incompatible with a state of anæmia.

The total and sudden loss of sensibility and consciousness, accompanied with involuntary muscular movements, and frequently by foaming at the mouth, would at first sight lead us to suppose that these fits were exactly analogous to epilepsy; there are however several important points in which they differ. In the first place they are dependent upon the pregnant, parturient, or puerperal state, and owe their origin to uterine irritation occurring in one or other of these conditions; they never occur at any other times, and can only recur under similar circumstances at any future period. The

fits are not preceded by the characteristic aura peculiar to epilepsy, and as a general rule occur in more rapid succession than the epileptic; the patient moreover recovers more rapidly and completely during the intervals, and, when perfect recovery has taken place, is in no danger of being carried off at some remote period, either from subsequent complications or continuous repetitions of the attacks, as in epilepsy, because these attacks are entirely dependent upon the pregnant, parturient, or puerperal state, and can only occur at these times.

During the fit, the patient's head should be raised, and a gag placed between the teeth, in order to protect the tongue; at the same time instant measures should be taken to remove congestion and allay nervous irritation; the symptoms being urgent require prompt and energetic treatment. Local congestion is in all cases present, and in the majority a state of general plethora; to remove this, loss of blood is imperatively required, and that to a considerable extent, before any other remedy can be expected to be of service; for although in most if not all instances of this affection, nervous irritation is the primary cause, still local congestion and general plethora have followed as a secondary effect, and being present tend to keep up this irri-

tation, which cannot be allayed until they are removed. Blood must, then, be taken copiously and rapidly, either from the arm or the jugular vein, the quantity being of course regulated by the nature of the case, the condition of the patient, and the effect produced, and should the fit recur must be repeated after a short interval, provided no positive cause exists to prohibit it. Simultaneously with the abstraction of blood we may employ the cold-water douche to the head, by means of which a most powerfully depressing effect is produced, and the existing local congestion is rapidly and effectually diminished. The bowels must be thoroughly evacuated as speedily as possible, which may be very easily accomplished by placing some calomel and croton oil on the root of the tongue, and throwing up at the same time a strong cathartic enema.

During an attack of convulsions it is necessary to make repeated examinations per vaginam; for although at first we may find the os uteri hard, contracted, and high up, so that we are unable to touch the fœtus, very rapid changes are liable to take place; the os uteri becomes soft and dilatable, the uterus contracts, the membranes protrude, burst, and discharge the liquor amnii, and the fœtus may be expelled without any one being aware of the

circumstance, were it not for the necessary precaution of making frequent examinations.

This is Nature's remedy for the removal of the cause by the expulsion of the uterine contents, and where it occurs spontaneously and naturally, either previously or subsequently to the administration of the remedies just mentioned, is not to be interfered with; neither does the labour require any different management from one occurring under ordinary circumstances. If, however, after the administration of these remedies, there is no marked amelioration of symptoms, and no tendency to the commencement of labour, or, if this has commenced, no sort of progress is made; then comes the question as to the propriety of artificial delivery. Undoubtedly in such cases (the symptoms continuing) evacuation of the contents of the uterus is necessary, if it can be accomplished with safety, and without violence. The most serious obstacle to such a proceeding is a hard and contracted state of the os uteri, and numerous remedies have been recommended for its removal; belladonna applied locally, emollient injections and the hip bath; and the os has even been incised with this intention. Venesection is the only remedy to be relied on, and in the majority of cases the bleeding employed for the removal of

the convulsive symptoms tends also to produce relaxation of the os uteri.

Violence in midwifery is totally inadmissible, and consequently a firmly contracted and hard os cannot be artificially dilated; no good can be attained by the attempt, and in all probability an aggravation of the symptoms will be the result. If the os is found to be soft, dilatable, and open, we may gradually and carefully dilate it with the fingers, using no *force*, and attentively watching the effect in order to see that we produce no aggravation of the symptoms; the operation of turning may then be had recourse to, if the liquor amnii is not discharged, the head high up and beyond the reach of the forceps; but if, on the other hand, the head is sufficiently low, the forceps should be applied, and delivery accomplished in that way.

The rule then in these cases is obvious; if by the administration of appropriate remedies the symptoms are alleviated, and labour commences and proceeds naturally without a recurrence of the attack, then artificial interference is unnecessary, and consequently objectionable; but should the symptoms not be alleviated by the remedies employed, and labour make no decided advance, then the interference of art is necessary, and de-

livery must be accomplished as speedily as is compatible with the safety of the patient, and with careful avoidance of the slightest approach to violence.

Numerous other adjuvant remedies have been recommended, as emetics and various kinds of anti-spasmodics and sedatives, but the administration of these must be left to the discretion of the practitioner, guided by the peculiar nature of each individual case. With regard to sedatives, and more especially opium, their use is limited to such cases as are nearly allied to hysteria, and to those induced by a state of anæmia, where nervous irritation predominates rather than vascular congestion; their administration, however, as a general rule, is more requisite in cases occurring in the puerperal than in the pregnant state. The hot bath is frequently of service when the other remedies have been tried without success; and where this cannot be obtained, hot fomentations to the abdomen may be employed as a substitute. Sinapisms applied to the feet and calves of the legs are useful in many instances, and should therefore be employed.

If, after a fair trial of all proper remedies, and delivery is accomplished, the patient still con-

tinues in a state of stupor, with much heat of scalp, the head should be shaved, and a mustard poultice applied; but if this should not have the desired effect, a blister should be employed instead.

In subsequent pregnancies the patient should be watched, her bowels must never be allowed to become confined, her general health must be attended to, and any appearance of a tendency to cerebral congestion must be at once removed by an antiphlogistic plan of treatment.

FRIGHTFUL DREAMS.

Some patients during pregnancy are troubled with alarming dreams at night. This symptom must arise both from the disordered state of the nervous and circulating systems, but more particularly of the latter. It is not altogether dependent upon mechanical pressure, though this has something to do with it. If a person in sound health goes to bed after a full meal, and happens to turn on his back during sleep, the usual result is night-mare; this is generally caused by pressure of the loaded viscera upon the large vessels situated at the back of the abdomen, a certain amount of nervous irritation at the same time existing from the distention of the intestines; the circulation

becomes somewhat impeded, and a slight amount of cerebro-spinal congestion is the result, giving rise to the disagreeable state of temporary alarm which follows.

Nearly the same cause produces these frightful dreams in pregnancy—pressure of the distended uterus, accompanied with nervous irritation, and often in such cases with disordered bowels, from constipation or some irregularity of diet. Attention to the state of the bowels, and the local abstraction of blood, if there is any tendency to cerebral congestion, will afford relief in these cases.

DROPSICAL EFFUSIONS.

Œdema of the feet and legs sometimes occurs during pregnancy, and may, in some instances, be caused to a certain extent by mechanical pressure of the gravid uterus; this however is far from being always the case, for the size of the uterus bears no proportion to the extent of the œdema, and is often, under these circumstances, unusually small; whereas, frequently when the uterus is enormously distended, either by plurality of children or excess of the liquor amnii, no œdema exists.

This œdema is not always confined to the lower extremities, but spreads over the whole body; and

we may also have, either in combination with it, or separately, dropsical effusions into the abdomen, chest, or head, giving rise to very alarming and dangerous symptoms. Where the œdema is slight, and confined to the feet and ankles, going off quickly on assuming the recumbent position, it requires no attention; but where it assumes a more severe form, or where the effusion takes place within one of the important cavities of the body, energetic treatment must be had recourse to. This must, however, vary according to the nature of the case; but as a general rule bloodletting will be requisite as a precursory step, before adopting any regular plan; purgatives should then be employed, and mild diuretics, taking care not to produce irritation of the urinary organs. In the more severe cases of effusion into the cavities, it may be necessary to induce premature labour as the only means of saving the patient, it being utterly impossible for her to live, with the increasing effusion, up to the full period of gestation.

FALSE PAINS.

Some women are affected at the latter part of utero-gestation with pains somewhat resembling those of parturition, but in reality quite unconnected

with it. The causes of these pains are various; they may depend upon flatulence or irritation of the bowels, accompanied either with constipation or diarrhœa, spasm of the intestines, ureters, or biliary ducts, or possibly of the uterus itself, and they may be the result of inflammation with accompanying fever. They may be distinguished from true parturient pains by their situation and character, the irregularity of their recurrence, and in some instances by their being permanent. On placing the hand over the uterus it is not felt growing hard and contracting as during a true labour pain, and an examination per vaginam discovers the os uteri shut; or should it by chance be a little open, it does not dilate any more. The object in these cases is to remove the cause of the pain, and consequently the treatment must vary according to circumstances.

FEBRILE STATE.

It has been already stated that from the combined disturbance both of the nervous and circulating systems during pregnancy, an irritable state of constitution is induced, not however, in ordinary healthy cases, amounting to fever.

This condition of irritability in certain instances

becomes much augmented, and a truly febrile state is the result. Of course this state of fever varies in intensity in different subjects, but the main set of symptoms are the same in all. There is considerable heat of skin, acceleration of the pulse, and much restlessness; these symptoms become greatly increased at night, there is loss of sleep, the pulse is quicker and the heat augmented, in some cases more especially about the organs of generation, giving rise to the most insufferable irritation. These symptoms gradually subside towards morning, the skin becomes moist and perspirable, and some broken sleep is obtained, from which the patient wakes unrefreshed, but is generally free from a fresh attack until the afternoon, when the same phenomena appear: eventually there is emaciation, but on the whole the strength bears up well under all these untoward circumstances.

There is another and more severe form, which generally sets in suddenly with a sharp rigor; many of the subsequent symptoms are the same, but aggravated in severity; there is very little sleep obtained, and this is disturbed by frightful dreams, and in many instances the patient wanders during the night; the bowels are confined, the tongue dry

and foul, there is great pain in the head, intense thirst, and the appetite is entirely lost.

The first of these forms of fever, when slight, does not require any very energetic treatment, but when more severe it requires the abstraction of a small quantity of blood, which operation must be repeated occasionally according to circumstances; the bowels must be kept open by mild laxatives, and gentle diaphoretics should be administered to alleviate the dry heat of skin which exists; the sleeping apartment should be kept cool and well ventilated, and no more coverings placed on the bed than are absolutely necessary. Unfortunately, however, in many cases no relief can be obtained until parturition takes place. The treatment in the second form is essentially the same, but requires to be more energetic, as the symptoms are much more severe, and may terminate in abortion.

CHAPTER II.

Diseases arising from mechanical pressure of the enlarged uterus upon the circumjacent parts—Varicose veins—Piles and Prolapsus ani—Cramp—Jaundice — Rigidity and Laxity of the abdomen—Incontinence of urine—Hæmoptysis and Hæmatemesis.

VARICOSE VEINS.

THE veins of the lower extremities often swell from pressure of the gravid uterus upon those situated within the pelvis, and consequent hindrance to the return of blood. The varicose tumours thus induced do not differ from others occurring under ordinary circumstances; the cause, however, in this instance is a mechanical obstruction to the free circulation of the blood, and until that obstruction is removed we cannot hope for much alleviation of the symptoms. Beyond the inconvenience, this affection is attended with no bad consequences, and generally subsides entirely after delivery has taken place; in the mean time, rest in the recumbent

posture and light support will afford relief, but cannot effect a cure.

PILES AND PROLAPSUS ANI.

Piles are far from uncommon, and are mainly dependent upon mechanical pressure; there is, however, in addition to this, a torpid condition of the large intestines, giving rise to costiveness. The hæmorrhoidal tumours occurring at this time are precisely the same in their nature and appearance as those existing at any other, neither do they require any different plan of treatment, except the avoidance of an operation, which, as a general and almost invariable rule, is totally inadmissible during pregnancy. If they are attended with much pain and irritation, the local application of leeches will be necessary; cooling and sedative applications should then be employed, and accumulation of fæces prevented by the administration of mild laxatives. If the tumour should burst and give rise to much hæmorrhage, or if it should bleed habitually, measures must be taken at once to check the flow of blood, or abortion is likely to follow; the application of cold and astringents, combined with pressure, will generally effect this.

Either separately or in combination with piles, we sometimes meet with prolapsus ani depending upon the same cause; this is occasionally attended with the most distressing tenesmus and severe pain during the act of defecation. The bowel should be washed and returned whenever it comes down, laxatives should be constantly administered, and as soon as all tendency to inflammation is subdued astringent applications are to be employed. In both these cases frequently the treatment can only be palliative until delivery is accomplished, when a natural and permanent cure takes place. The latter is by far the most annoying, and where it remains up to the period of delivery is exceedingly troublesome. In a case of protracted labour of fifty-eight hours' duration which I lately attended, the bowel came down with every pain, and very soon became most acutely sensitive and irritable. After delivery, three weeks elapsed before a complete cure was effected.

CRAMP.

The nerves are sometimes pressed upon by the gravid uterus in the same way as the blood-vessels, and spasmodic pains of the lower extremities, well known under the name of cramp, are the result.

They occur suddenly, and can be relieved by friction of the affected part and change of position; beyond this, no treatment is required.

JAUNDICE.

This symptom occasionally occurs during pregnancy, and under such circumstances is totally dependent upon this state. The mechanical pressure of the uterus is the cause, although it is not directly applied by that organ itself; the other viscera are compressed, and these in their turn press upon the gall-ducts and prevent the escape of bile. It may occur in the first months of pregnancy, but as a general rule is not then so severe; it is, as a matter of course, attended with dyspeptic symptoms, and these may increase to a very disagreeable extent. In the latter months, the pressure being greater, it is more severe, but may even then be relieved by the uterus shifting its position as it increases in size, and thus removing the pressure.

This is an evil for which little can be done except by attending to the general health. Laxatives, bitters, and alkalies, or the nitro-muriatic acid, according to circumstances, may be administered; but blue pill, which is frequently recommended, I do most strongly object to, considering that, with

the exception of very urgent cases, mercury should never be used for pregnant women.

RIGIDITY AND LAXITY OF THE ABDOMEN.

In first pregnancies we occasionally meet with great rigidity of the abdomen; the uterus increases in size, but the abdominal walls do not give way in equal ratio, and a considerable amount of distress is the result. The symptom is inconvenient, to say the most of it, and treatment is scarcely required; bleeding, leeches, and various local applications are advised, but a little patient resignation will show that time and nature will effect a cure without any such assistance.

Laxity of the abdomen generally occurs in women who have borne many children; in these cases the abdominal walls are so loose that they are incapable of affording proper support to the gravid uterus, which may consequently fall in any direction. Proper mechanical support, by means of an appropriate bandage, is the only chance of affording relief; medicinal remedies are useless.

INCONTINENCE OF URINE.

Patients in the latter months of pregnancy are sometimes unable to retain their water completely;

the uterus presses upon the bladder, and upon the slightest exertion the urine consequently escapes; even without exertion there is frequent desire and necessity to empty the bladder, in order to prevent the water being forced out involuntarily. In some cases, a little relief may be obtained by supporting the abdomen, and thus in some degree taking off the pressure, but in the majority of instances nothing can be done until the symptom is removed by delivery; it is inconvenient, but not dangerous.

HÆMOPTYSIS AND HÆMATEMESIS.

Hæmorrhage, either from the lungs or stomach, may occur from pressure of the uterus, in the latter months, upon the large abdominal vessels. The circulation under these circumstances being obstructed, congestion of various organs is liable to take place; where this happens to the lungs or stomach, nature affords relief by the exudation of blood from the mucous membrane, and hæmoptysis or hæmatemesis is the result, according to which of the two organs happens to be affected.

Bloodletting, either general or local, must be had recourse to, and purgative medicines administered; subsequently to this, astringents, sedatives, and the various remedies used for such cases

occurring at other times, may be employed. If either of these symptoms should occur to any great extent during parturition, and should not speedily yield to treatment, provided the soft parts are in a proper condition, the os uteri dilated, and all other circumstances favourable, delivery should be hastened by artificial means.

CHAPTER III.

Affections of the uterus and its contents—Prolapsus—Retroversion — Antiversion — Irritability — Spasm and Inflammation —Aqueous discharge—Dropsy of the ovum—Fœtal turbulence—Hæmorrhage—Abortion—Rupture.

PROLAPSUS.

In the early months of pregnancy, when the uterus begins to increase in size and weight, prolapsus is liable to occur; this is attended with a sense of bearing down, pain, and uneasiness in the sacral region, and very frequently in the lower part of the abdomen as well. This symptom can almost invariably be alleviated and eventually cured, by keeping the patient in a recumbent posture. The uterus increases in size, rises above the brim of the pelvis, there rests, and is unable to descend again during gestation. Sometimes, however, in a more advanced stage of pregnancy, where the pelvis is extremely capacious, a sudden prolapse occurs during some act of unusual exertion. In this case

the bladder must first be emptied by means of the catheter, and the prolapsed uterus then carefully returned to its proper situation above the brim; the recumbent position must be persevered in until the womb is sufficiently enlarged to maintain its position.

Both these cases require attention, for the same result is likely to follow in each if left to themselves: in the first, the uterus having descended, and the patient going about, it grows within the pelvis and gradually becomes impacted therein, causing pressure on the pelvic viscera; in the second it is at once impacted, and immediately gives rise to the same effect, on account of its much larger size.

RETROVERSION.

Retroversion of the uterus consists of a displacement of the organ in an exactly contrary direction to that which it holds in a normal condition; the fundus is directed backwards, dropping below the promontory of the sacrum, while the os is pushed forwards and upwards, frequently rising above the symphysis pubis, and dragging the vagina up with it. Generally speaking, this occurs where the uterus is enlarged; and the enlargement may arise either from a malignant tumour, polypus, or hyda-

tids, but by far the most common cause is pregnancy, and the period about the third or fourth month. The rectum is pressed upon by the fundus, and the neck of the bladder and urethra by the os and cervix uteri, defecation and micturition being thus interfered with.

The symptoms consist in retention of urine, which frequently sets in somewhat suddenly, and may be either partial or complete; defecation is performed with difficulty, the fæces being flattened and coming away in small quantities. Where the retention of urine is not complete, only a small quantity is passed at once; there is frequent desire to make water, but the bladder is never completely emptied; the urine eventually dribbles away involuntarily, and the bladder becomes enormously distended, to a sufficient extent to cause rupture if left to itself, or chronic inflammation, even if relieved after the retention has existed for any considerable time. There is pain in the sacrum, thighs, and pubes, with a sensation of bearing down; and these symptoms, coupled with the fact of the patient being in the third or fourth month of pregnancy, lead one to suspect the nature of the case. Fluctuation is felt above the symphysis pubis, caused by the distended bladder, which must now

be emptied; this having been done, upon feeling externally, the uterus is not to be discovered in its natural position in front of the abdomen, above the symphysis pubis. An examination per vaginam must be made in order to ascertain the nature of the case with certainty. The fundus uteri will now be felt as a large tumour, lying between the vagina and rectum, and below the promontory of the sacrum; the os can scarcely be reached with the finger, but is found directed upwards and forwards above the symphysis pubis. This, however, is not invariably the case, for the cervix, being occasionally very flexible, may be doubled upon itself, and thus leave the os in its natural situation, while the fundus and superior part of the cervix alone are retroverted.

A large pelvis may undoubtedly act as a predisposing cause to this accident, but is not by any means essentially necessary; for the uterus not having attained a sufficient size in the early months to prevent the possibility of its falling below the promontory of the sacrum, is capable of doing so in a pelvis of ordinary dimensions. A distended bladder may be the immediate cause, or a loaded rectum where this viscus is somewhat lax; sudden contraction of the abdominal muscles under favourable circumstances, as for

instance with loaded bowels, will also produce it—in fact, anything which can tend to tilt the heavy fundus backwards, where there is sufficient room for the force of gravity to carry it below the brim of the pelvis.

Reduction must be attempted as soon as ever the nature of the case is ascertained, or very serious consequences will follow, as before mentioned. In the first place the bladder must be emptied, and occasionally when this is done we find that the displaced organ returns to its natural position, without further interference. Should this not occur after the regular employment of the catheter for a certain time, and the use of enemata to evacuate the loaded rectum, other means must be had recourse to: one or two fingers should be introduced into the rectum, and pressed against the retroverted fundus; at the same time two fingers of the other hand may be introduced into the vagina, and placed upon the os uteri, which should be steadily though carefully depressed, while the fundus is with equal caution raised. This may be done in the usual recumbent position on the left side; but should it be difficult to accomplish it in this position, the patient may be placed on her hands and knees, thus inverting the pelvis, and adding the force of gravity to our other endeavours.

There are, however, some unfortunate cases in which it is impossible to return the organ to its proper position: it may by chance have been retroverted antecedent to pregnancy, and be bound down firmly by adhesive inflammation. In such a case all that can be done is to attend to the rectum and bladder, never allowing either to become unnaturally loaded; but should it be clearly evident that the uterus cannot rise, and rupture is speedily expected, the induction of premature labour is the only chance of saving life, though such an operation should never be resorted to without careful consideration, and a second opinion.

The uterus may be partially replaced, and though to a great extent it is fixed in the pelvis, a portion rises, giving the organ a distorted shape, but still, with attention to the rectum and bladder, enabling the patient to complete the full time of utero-gestation; the os continues tilted forward and turned upwards, and labour is slow and difficult, though completed in most instances by the natural efforts.

When reduction is accomplished, the patient must be kept in the recumbent posture until the uterus attains sufficient size to prevent the possibility of its again falling backwards and turning over into the cavity of the pelvis.

ANTIVERSION.

This misplacement of the uterus, exactly contrary to the last, is exceedingly uncommon, at any rate during pregnancy. The symptoms are, a sensation of bearing down, constant desire to make water, which is passed with difficulty, and the act of defecation is interfered with. Above the pubes a tumour can be felt, caused by the fundus uteri pressing forwards; and on examination per vaginam the os uteri is felt turned towards the promontory of the sacrum.

The fundus should be raised, the bladder regularly emptied by means of the catheter, and the state of the bowels carefully attended to. If there is difficulty in raising the fundus, a compress may be worn over the pubes, which means are the most likely to effect the replacement of the organ.

IRRITABILITY.

This affection may occur at different periods during the time of utero-gestation: it occurs independently of pregnancy, but is then much more intractable, and often lasts for a very considerable length of time, whereas when it depends upon the pregnant state it passes off as soon as delivery

takes place, if not relieved before. In either case it depends upon an excited and irritable state of the uterine nerves, and is very nearly allied to hysteria. The symptoms consist of pain in the uterine region, constant, but occasionally increased in intensity, particularly after exercise. There is some tenderness on making pressure above the pubes, and the uterus itself is tender upon being touched per vaginam.

Perfect rest in the recumbent posture must be strictly enjoined, and leeches applied to the hypogastric region to remove local congestion; the bowels should be first cleared by a gentle aperient, and then sedatives should be administered to allay nervous irritation.

SPASM AND INFLAMMATION.

The uterus is in some instances affected with pain of a spasmodic nature, attended with inflammation; the symptoms are somewhat similar to those last mentioned, but much more aggravated in severity, and far more serious in their consequences. The pain is more severe and evidently spasmodic, and is felt in the back, hips, and groins, as well as in the region of the uterus; there is great tenderness on pressure, and well-marked constitutional

symptoms of inflammation, marked by increased rapidity of pulse, dryness and heat of skin, intense thirst, constipation, and occasionally sickness.

The result to be feared is abortion, after which, in some cases of this kind, the patient may sink; consequently the treatment must be prompt and energetic: general and local bloodletting must be had recourse to, the bowels must be opened, and subsequently opium and diaphoretics administered; the patient must be kept in bed, and warm fomentations applied to the abdomen.

AQUEOUS DISCHARGE.

An aqueous discharge from the vagina occasionally takes place during pregnancy; this in itself is not a dangerous affection, but may be followed by untoward results, if due care be not taken to prevent them: hæmorrhage may occur, followed by premature labour. There are some cases in which it would almost appear that a portion of the liquor amnii is discharged, and yet the woman goes on to the full period of utero-gestation. This is, however, far from being the case in the majority of instances; for the general rule is, that labour comes on whenever the liquor amnii is discharged, either by artificial interference or

accident. Perfect rest in the recumbent position must be enjoined, the bowels should be kept open by laxatives, and sedatives should be administered, and much benefit may be derived from the employment of astringent injections.

DROPSY OF THE OVUM.

This affection may exist in various degrees; sometimes the uterus is merely distended with a somewhat more than normal quantity of liquor amnii, while in others the amount of this fluid is increased to an enormous extent, giving rise to very disagreeable symptoms. It generally occurs during the early months, being marked by far greater increase in the size of the abdomen than would naturally occur at this period. The health of the patient does not materially suffer, but she endures great inconvenience as the quantity of fluid becomes augmented. The diagnosis between this complaint and ascites is tolerably easy: first, the sudden attack, ascites coming on more gradually; secondly, the presence of the symptoms of pregnancy; thirdly, the shape of the uterus, which can be felt externally; and lastly, in an advanced stage, the membranes may be felt through the os, and on striking the lower part of the uterus with the

fingers, the fœtus may be felt to float up, and again descend as soon as the impetus has gone off. The following case is interesting in many points, and serves well to illustrate the present subject.

Mrs. G., ætat. 30, August 25th, 1844.—This patient has had two children before; the first was born dead, the second prematurely, and lived only eight days. From the early months of pregnancy she has been unusually large, and has now attained a very great size. I was sent for at seven P.M., and found that labour had commenced at twelve on the previous night. On examination I found the os uteri rapidly dilating, and the membranes protruding; on the cessation of pain I carried my fingers within the os, and, as well as I could judge, felt the head, though it was impossible to be certain, for it bobbed up like a cork in water. The pains continued strong and frequent until eight P.M., when the membranes gave way, and the liquor amnii escaped to the extent of considerably more than a gallon. The head descended gradually and naturally (it being now easy enough to make out the presentation), it pressed upon the perinæum, and, at a quarter to nine, was expelled; a few more pains expelled the body. The fœtus was dead, and had evidently been so for a considerable time; the

placenta was expelled in a quarter of an hour. After this time the patient recovered without the intervention of a single bad symptom. The child, in this case, had died some time before delivery; in her last labour it had been born prematurely, and died a few days after birth; and in her first it was stillborn.

This affection is evidently dependent upon some peculiar condition of the ovum, probably arising from some constitutional cause existing in either one or both parents; and certainly, in many cases where it occurs in successive pregnancies, attention to the general health of the parents, or the removal of some specific taint, will prevent its recurrence.

The fœtus generally perishes if the collection of fluid is great, and is often found to be malformed; if, however, the amount of fluid is somewhat less in quantity, the child may be born alive, but is weakly, and often dies within a short time after birth.

The treatment of these cases is extremely unsatisfactory; and very little good can be done during pregnancy, with the exception of attending to such symptoms as may arise from the mechanical pressure induced by the distended uterus. Subsequently to delivery, much good may be done by strict attention to the general health of both parents,

and the removal of any specific cause which may be supposed to exist. In some cases the quantity of fluid is enormous; so much so as to give rise to very serious consequences produced by pressure; and it may, under such circumstances, become a question as to the propriety of prematurely evacuating the liquor amnii, and thus inducing labour. It must be borne in mind that the uterus has been unusually distended during pregnancy, and that consequently, when delivery takes place, there is an indisposition on the part of this organ to contract firmly and securely, and, consequently, hæmorrhage is not unlikely to take place.

FŒTAL TURBULENCE.

Occasionally the motion of the fœtus in utero becomes so violent as to be truly distressing to the mother; a sense of sickness, attended often with local pain and much general nervous agitation, is induced. This affection may depend upon some preternatural sensibility of the uterus itself, but the more probable cause appears to me to consist in a state of general nervous irritation, which, from the condition of the uterus at this particular time, is more especially determined to that organ.

The bowels should be opened by laxatives, and

a very small quantity of blood abstracted, if the symptoms are sufficiently strong to warrant it. The administration of sedatives is often attended with great benefit, and mechanical compression by means of an abdominal bandage will frequently prove to be of much service.

HÆMORRHAGE.

Uterine hæmorrhage may occur at any time during pregnancy, from the earliest months up to the latest period. It is that which occurs in the latter months which will be more particularly considered in this section, the hæmorrhage of the earlier months being reserved for the next, when treating of abortion. Hæmorrhage varies much as to intensity in different cases, sometimes being sudden and severe, an immense quantity being lost in a short space of time, and rapidly proving fatal if not interfered with. In others it takes place more slowly, and in smaller quantity, keeping up a continual drain, but proving equally fatal at a later period if left to itself. In all cases, of every degree and variety, uterine hæmorrhage during pregnancy must be regarded as an exceedingly dangerous symptom; its nature and cause must be thoroughly investigated, and prompt and

energetic treatment adopted for its stoppage. It may arise from separation of a portion of the membranes, and will vary in degree according to the extent to which this may have happened. The placenta may be situated near the os uteri, and, becoming partially detached, give rise to dangerous flooding; or, worse still, it may be placed either partially or completely over the os, so that severe hæmorrhage is inevitable on the slightest dilatation; and in most cases where it is completely so, when the cervix begins to dilate in the latter months for the reception of the increasing uterine contents, the placenta not dilating also, but remaining almost inflexible, the communicating vessels are ruptured, and hæmorrhage takes place. Where, however, the placenta is situated in its proper position, at the superior part of the uterus, considerable separation may take place without external hæmorrhage, more especially if the separation occurs in the centre of the placenta, and does not extend beyond its margin; if it should happen to be at the margin under these circumstances, the blood has to make its way externally by separating the ovum from the walls of the uterus the whole way down to the os. The membranes adhering to the sides of the uterus

constitute an impediment; a coagulum is formed where the effusion takes place, and is retained. Such cases are not common; they do, however, occasionally happen, and the following I conceive to be one of this nature.

Mrs. H——, ætat 40, 17th Oct., 1844.—I was sent for at half-past two A.M., and, on my arrival, found her in labour with her ninth child. The pains were strong, the membranes unruptured, and the presentation natural. At three A.M. the membranes gave way, at a quarter-past the head was born, and a few more pains expelled the body of a male child. This was immediately followed by the placenta, and this again by several large clots of coagulated blood, decidedly not of recent formation; scarcely any fluid blood came away, either now or subsequently. There was the marked cadaveric odour, which can hardly be mistaken by those who have smelt it; and the umbilical cord was of that peculiar purple colour which is always present in stillborn children where they have been dead for any time. The skin was desquamating, and peeled off on the slightest touch, and the cranial bones were unnaturally mobile, the brain being evidently decomposed. About a month before delivery the patient had strained herself, and

"fancied she felt something snap in her inside;" from this time she felt a sensation of coldness in the abdomen and a weight rolling about, accompanied with a nauseous taste in the mouth. This patient never had a bad symptom; the lochial discharge was not sanious, but of the colour which it is when it has existed for a short time in ordinary cases. Milk was secreted, but under appropriate treatment gradually diminished in quantity, and finally disappeared.

The strain would account for the separation, and all circumstances tend to show that it took place at that time—the death of the fœtus, evidently of some standing from its appearance when born, the expulsion of the placenta at the same time as the fœtus, the appearance of the large clots which followed, and which were evidently not of recent formation, and the almost total absence of any fluid blood. In this case the rupture of the vessels was caused by mechanical violence, and most frequently where this happens it is attended with more dangerous consequences than when it arises from other causes, and the fœtus perishes through the extent of the injury inflicted.

The more common cause of uterine hæmorrhage is found to consist in an excited state of circulation,

either local or general; in plethoric constitutions it is particularly liable to occur from this cause: the general circulation is greatly augmented in force, and the local congestion is likewise increased up to a pitch that can no longer be borne without further mischief, and Nature relieves herself by rupture of the communicating vessels between the ovum and the uterus. General plethora is not, however, necessary to give rise to this accident; local congestion of the uterus, as well as of any other organ, may exist, even with a state of general anæmia; but under these circumstances there is an extremely excitable state of the nervous system, and a corresponding state of the circulating system is also present. Over-exertion, fatigue, sudden fright, and many other causes of a like nature, may give rise to this affection. In such cases, particularly fright for example, the heart's action is for the moment checked, and at the same time a spasmodic constriction of the capillaries takes place, by which means the blood is thrown back from the surface; the heart then recovering itself, this state of collapse rapidly passes off, is succeeded by violent reaction, and rupture of some of the uterine vessels is possibly the result.

The immediate and most alarming danger in

these cases exists at the time of the hæmorrhage; but this having ceased, we must not suppose that all danger is at an end: many severe and fatal consequences may follow, having been caused by the effect produced on the system. The following case will show, not only the manner in which hæmorrhage may occur from the edge of the placenta being placed over the os uteri, but also the after-effects which may ensue.

Mrs. M——, aged 20, 7th January, 1845.—I was called at twelve P.M., and found her in labour with her fifth child, she having been married five years. On my arrival I learned that she had an attack of hæmorrhage at nine P.M., in the street; she immediately returned home, and it happened again on the stairs, the floor of the room, and partly in a basin, on the whole amounting to a considerable quantity. On making an examination I found the os uteri soft and dilatable, about the side of a crown-piece, and the presentation of the child natural, but on the right side of the os a small portion of the edge of the placenta could be felt overlapping and detached. She now got up, and was at once attacked with hæmorrhage, but not to any dangerous extent; she said that it came on whenever she sat up, and I therefore ordered her to lie down and remain quiet.

The pains were exceedingly short and at long intervals; and there still being some tendency to hæmorrhage, at three A.M. I ruptured the membranes, which had the desired effect of completely stopping it. The pains now ceased for a time, and commenced slowly again at eight A.M. At half-past twelve P.M., the head began to descend, and at a quarter-past one was expelled; two more pains expelled the body of a healthy female child. The binder was applied, and in half an hour the placenta came away, after which the uterus remained well and firmly contracted.

℞ Liq. opii sed., ♏xxx.
Aq. ʒiss., post hor. ij.

Vespere.—Pulse 120, full; feels sleepy; discharge continues in moderation; can make water freely.

9th.—Pulse 120, full; complains of headache; has occasional shiverings; but the lochial discharge continues properly, and she has milk.

Vespere.—Much the same; bowels were confined before delivery.

℞ Olei ricini, ʒss., statim.

10th.—Nine A.M.: Oil has acted well; pulse 120, full; tongue white; complains of headache; but the discharge continues, and there is plenty of milk.

Six P.M.—Discharge has stopped; pulse 120, full; tongue foul. She complains of headache and intense thirst, and has had a distinct rigor, followed by perspiration. There is pain in the abdomen, increased by pressure. I made her sit up, and bled her to f℥x., when she became faint. The pain was relieved, and the pulse fell to 100. Bran poultice to abdomen.

℞ Hydrarg. chloridi, gr. v.
Pulv. opii, gr. ij., statim.

℞ Tinct. digitalis, f℥ss.
Potassæ nit., gr. x.
Liq. ammoniæ acet., f℥ss.
Mist. camphoræ, f℥j.; 4tis. horis.

11th.—Eight A.M.: Slept well and is free from pain; pulse 100, tongue cleaner; the discharge has returned, and there is milk. Rep. Mist.—Vespere: Much the same as in the morning; pulse 100.

12th.—Pulse 112, tongue rather brown, there is slight pain on pressure, but she has had no return of shivering; the discharge continues, and there is plenty of milk. Rep. catap. et mist.

℞ Hydrarg. chloridi, gr. v.
Pulv. opii, gr. ij.; h. s. s.

13th.—Pulse 112, tongue brown, complains of headache and thirst, and has abdominal pain, increased by pressure; discharge has decreased

suddenly, but there is still plenty of milk. Intermitte mist.

℞ Hydrarg. chloridi, gr. ij.
Pulv. opii, gr. ¼ ; 4tis. horis.

14th.—Pulse 112, discharge somewhat increased; has plenty of milk; no headache or pain, gums slightly vascular. Omit pill.

15th.—Pulse 100, tongue moist; no headache or pain; has plenty of milk, discharge decreasing in quantity.

16th.—No headache or pain, tongue moist, pulse 112, feeble; feels low and weak. To have a little beef-tea.

17th.—Pulse 100, tongue moist and clean, still very weak. To have some fish.

18th.—Tongue moist and clean, pulse 112, no headache or pain in abdomen; has plenty of milk; complains of pain in anterior part of right forearm, just above the wrist, where it is rather red, swollen, and very tender. To get up and have the wrist fomented.

19th. — Considerable swelling and tension of forearm; in every other respect doing well. Hirudines vi. carpo, postea fotus.

℞ Pil. hydrargyri, gr. iv., h.n.
Haust. rhei, ʒiss., c. m

20th.—Less swelling and tension; medicine has operated freely; tongue clean, pulse quick and weak, but she fancies she feels stronger.

21st.—Better, not so much pain; tongue clean, bowels regular, pulse weak.

23rd.—Arm swollen and painful in using it. Rep. herudines vi.

24th.—Arm better, not so painful.

26th.—Arm very painful, cannot sleep for it.

℞ Hydrarg. chloridi, gr. iv.
Morphiæ hydrochlor., gr. j., h. n.
Haust. sennæ, ʒiss., c. m.

29th.—Arm still very painful; complains now of pain in the right hip, but there is no pain or swelling in that part. Cat. lini carpo.

℞ Pulv. ipecac. c., gr. x., h. n.
Olei ricini, ʒss., c. m.

February 1st.—There is now distinct fluctuation over the wrist, and on opening the abscess about ʒiij. of pus escaped. Rep. cat. lini. Hip still painful, but no swelling or redness. Fotus coxæ. To have some beer and meat.

℞ Quinæ disulph., gr. vi.
Magnesia sulph., ʒij.
Acidi sulph. dil., ♏xl.
Syrupi zingiberis,
Tinct. hyoscyami,
Spirit. æth. nit., aa. fʒij.
Aquæ, fʒv.
Capiat cochl. ij. ampla ter quotidie.

2nd.—Discharge from wrist healthy; sleeps well, and enjoys her food; hip still painful.

4th.—Hip very painful; cannot bear to be moved; appetite good, pulse weak; complains of being griped and purged. Intermitte mist.

6th.—Very little discharge from wrist, which is inclined to heal; poultice to be left off. Hip is exceedingly painful, pulse weak, tongue foul, but the appetite is good.

8th.—Great pain in the hip, cannot bear to have the part touched; and there is now some swelling of superior and external part of right thigh.

11th.—Pain and swelling in thigh much increased; the part pits beneath the finger. Wrist healed, pulse quick and weak, tongue foul, appetite good.

12th.—Pulse rapid and weak; thigh much more swollen, and there is now an indistinct feeling of fluctuation, deep-seated, and evidently below the fascia. Cat. lini.

14th.—Abscess opened and a pint and a half of pus let out. Rep. cat. lini.

15th.—Thigh œdematous, with very little discharge from the abscess; pulse 120, and exceedingly weak; the appetite however is good, and she has eaten a hearty dinner; to be supported with meat, beer, &c.

16th.—The opening of abscess blocked up with lymph, on the removal of which about f℥xiv. of pus escaped; pulse quick, appetite good.

17th.—Abscess discharges freely, pulse a little stronger; complains now of her left arm, in which there is a swelling over the biceps, but no fluctuation; does not sleep at night.

℞ Morphiæ hydrochlor., gr. ss.
Aq. dist., f℥iss., o. n.

18th.—Slept well, pulse quick and weak, but somewhat stronger than it was; less discharge from thigh; arm much the same. To lie on the outside of the bed.

19th.—Very little discharge from thigh, otherwise much the same.

20th.—Orifice of abscess blocked up; about f℥x. of pus let out.

21st.—Abscess discharges freely; arm about the same, pulse stronger.

22nd.—Less discharge from thigh; arm more painful and swollen. Cat. lini. Appetite good, bowels confined. Olei ricini f℥ss. statim.

24th.—Less discharge from thigh; abscess on arm opened, and f℥vi. of pus let out. Rep. cat. lini.

26th.—Arm discharging freely, thigh less; strength improving.

March 1st.—Discharge from thigh very much diminished, and that from arm also less.

From this time she continued to improve, the abscesses gradually healed, and by the end of the month she was perfectly well, with the exception of a little stiffening of the thigh, which soon passed off.

In this case, the loss of blood before delivery, though not in itself sufficient to cause immediate danger, was nevertheless enough to give rise to a temporary state of cachexia, thus laying the system open to the evils which subsequently followed. It is, however, astonishing the immense quantity of blood which some patients will lose at the time of delivery, and yet recover without a single bad symptom. Sudden, profuse hæmorrhage, unless proceeding to an alarming extent, is not, as a general rule, so much to be dreaded for its after consequences as where a continual, repeated drain is kept up, in which case a constant state of weakness is maintained and gradually augmented.

The treatment of uterine hæmorrhage during pregnancy must of necessity be modified according to the particular nature of each individual case, but even in the slightest it must be looked upon as a dangerous symptom, and watched with the most sedulous

attention. The first object in every case is to restrain the hæmorrhage; the next consideration is, whether the patient can, under appropriate treatment, go through the remaining period of gestation, or whether it will be expedient to hasten delivery. Where the bleeding is slight we may hope for the former happy termination, but where it is at all profuse it most generally terminates in delivery, which in many instances is absolutely necessary for the safety of the patient.

In all cases a careful internal examination must be instituted, to ascertain their nature, and decide upon the plan of treatment. If the hæmorrhage has been moderate, and upon examination after it has ceased we find no coagulated blood stopping up the os uteri, we may conclude that it is arrested by coagula in the mouths of the ruptured vessels, which may be regarded as a favourable omen; but on no account, under such circumstances, should a coagulum be removed, as such a proceeding would of necessity lay open the mouths of the hitherto covered vessels, and give rise to a recurrence of the hæmorrhage. If, on the other hand, the hæmorrhage should be profuse, we must carefully examine the state of the os uteri, and ascertain if labour has commenced, and whether the membranes present,

or whether the placenta is partially or completely implanted over the os.

There are some rare cases, where the hæmorrhage is slight, and where it is evidently dependent upon a plethoric state of system and an augmented force of circulation, in which venesection is necessary in the first instance, to restrain it and prevent its recurrence; such cases are few in number, and in the majority this remedy would be productive of more harm than good.

The application of cold is of the greatest benefit, acting locally both as a sedative and astringent, reducing the power of the circulation in the uterine vessels, and tending to induce their constriction. The degree of cold must vary; first, in proportion to the extent of the hæmorrhage; secondly, in proportion to the condition of the patient. In the more moderate cases, especially where we hope to carry the patient up to the full period of gestation, cold water will generally be found sufficient, and may be applied by means of napkins to the genitals and lower part of the abdomen, changing them as soon as ever they become warm. In more severe cases, the application of pounded ice in a bladder to the abdomen, or the introduction of a piece within the vagina or rectum, will often be

found of the utmost service in checking the discharge. Where the patient is violently depressed by loss of blood, cold must be applied with great caution; and in extreme cases, where she is becoming collapsed, with cold extremities, pale lips, difficult respiration, jactitation of the limbs and wandering ideas, a totally opposite plan must be adopted; warmth must be applied to the trunk and extremities, and stimulants administered internally; these symptoms are, however, but too frequently the precursors of death, and no remedy has any power to revive the shattered frame. If the first profuse flow of blood has been arrested and a draining continues, the best plan that can be adopted is to plug the vagina, by which means, in many instances, the blood may be induced to coagulate and the hæmorrhage be permanently stopped.

Internal remedies are of no service at the first onset, but subsequently such ones may be employed as are efficacious in diminishing the power of the heart's action, thereby lessening the force of the circulation, together with others which in addition to this action produce an astringent effect upon the vessels themselves, causing them to contract. Digitalis has a direct sedative influence upon the heart, and by means of its administration the first object

may be attained; acetate of lead has also a sedative action, but possesses also a strong astringent power over the vessels; Dr. Paris eulogizes it in such cases by describing it as "neque simile nec secundum," and certainly the praise is well deserved. These two remedies may, however, with the greatest propriety and advantage, be administered together. Where much irritation is present, opium is of essential service, but its administration must be left to the discretion of the practitioner, guided by the peculiarities of the case.

The next and perhaps the most important remedy consists in manual interference, either by rupturing the membranes and allowing the liquor amnii to escape, or removing the fœtus by the operation of turning. The first of these processes is undoubtedly preferable where the nature of the case admits of it, and where it is sufficient to gain our object, because the introduction of the hand into the uterus is not a thing to be lightly undertaken, and however easy of accomplishment, or however skilfully it may be performed, should always be avoided if possible. In many cases, rupture of the membranes is sufficient to restrain the hæmorrhage, where it does not depend upon malposition of the placenta; and even where this occurs to a partial extent, we may

gain our end by evacuating the liquor amnii; this causes contraction of the uterus upon the fœtus to an extent which is often sufficient to put a stop to the discharge. The liquor amnii may also be discharged with another view: in cases where hæmorrhage occurs antecedent to labour, and continues, there being no sign of that process commencing, and the life of the patient being hazarded by the retention of the uterine contents, the membranes may be ruptured by means of the sharp-pointed stilet and canula introduced through the os uteri; the liquor amnii is gradually discharged, uterine contractions come on, and delivery is accomplished, either naturally or artificially, according to the nature of the case. Where the placenta is situated over the os uteri, and hæmorrhage (as it necessarily will) occurs from this cause, artificial delivery must be had recourse to as soon as possible. Where the case is seen early, and there is a tolerable amount of strength remaining in the patient, not a moment should be lost; the instant the parts are in a favourable condition for the passage of the hand, it should be introduced and the child turned. But if, on the other hand, we do not see the patient until she is perfectly exhausted, and lies in a state approaching to asphyxia, so that the additional

loss of a very small quantity of blood would turn the scale against us, we must pause, lest by disturbing the parts we should cause a return of the hæmorrhage; the patient must be allowed to rally a little, and then delivery accomplished with as short delay as possible. The hand may be passed into the uterus in two ways; either by detaching the placenta from the walls of the uterus and entering the membranes beyond its edge, or by boring the fingers right through the substance of the placenta itself. This latter mode is less likely to be attended with additional loss of blood, and is perhaps somewhat more speedily performed; whereas the former is sure to be attended with more or less additional loss of blood during the separation of the portion of the placenta under which the hand passes; and where much has already taken place, and great prostration is present, it must be totally out of the question. The plan of passing the hand at once through the substance of the placenta is undoubtedly the safest, as in so doing no further risk is induced by rupturing fresh vessels.

ABORTION.

This accident may occur at any period under the sixth month, or, in other words, before the fœtus

is capable of carrying on an independent existence after its birth; beyond this time—that is, between the sixth and ninth months—the expulsion of the uterine contents is termed premature labour. Abortion may be divided into two stages; first, detachment, in which the ovum becomes separated from the uterus, giving rise to hæmorrhage; and secondly, expulsion, in which the muscular fibres of the uterus contract for the purpose of evacuating its contents.

The first stage, of detachment, when not extensive, may exist without the supervention of the second, and in favourable cases further mischief may be prevented if attended to in time, and the patient conducted safely through the full remaining period of utero-gestation; but where the second, expulsive stage is once established, and regular pains have fairly commenced, it will be impossible by any means to check it until the uterus is entirely emptied of its contents.

The symptoms accompanying both stages vary considerably according to the period at which the event happens; neither are the two stages uniform in their duration. The first may exist for a considerable time before the appearance of the second; or this latter may be protracted, although having

appeared at the same time as the first; and again, though rarely and only in the earliest period, the ovum may be expelled without any very marked symptoms of either.

When abortion occurs within the first month after conception, the symptoms vary but little from those of menorrhagia, for which affection it may in some cases be mistaken. There is often very considerable hæmorrhage, and the blood coagulating, clots are formed and expelled; this is accompanied by pain in the back and loins, sensation of bearing down in the uterus, and all the usual signs attendant upon menorrhagia and dysmenorrhœa. At this period the only recognisable trace of the ovum is the tunica decidua, which frequently becomes so disorganized and so mixed up with the coagula as to be discerned with great difficulty; moreover, in cases of dysmenorrhœa, false membranes are formed and expelled with all the symptoms of abortion at an early period. The diagnosis at this time must always be somewhat difficult, and can only be clearly determined by taking into consideration other collateral circumstances tending to prove the fact of conception having taken place. The discharge in these cases is sometimes very severe, and not unfrequently lasts

for a considerable time, varying much according to the nature of the patient's constitution.

As pregnancy advances, all the symptoms become more marked and augmented; the hæmorrhage is more severe, and when the expulsive stage commences, regular pains indicating uterine contraction are present. In some cases we meet with premonitory symptoms, there is a state of febricula, attended with rigors, loss of appetite and nausea, languor and debility, sensation of abdominal weakness, accompanied with a feeling of weight and bearing down. These symptoms are sometimes succeeded by a leucorrhœal discharge, which is again followed by hæmorrhage; subsequently the uterus contracts, giving rise to pain, and sooner or later the ovum is expelled.

The manner of expulsion varies in different cases; sometimes the ovum is expelled entire, the fœtus being enclosed in its membranes; at others the membranes having given way, and the liquor amnii having escaped, the fœtus is expelled, but the placenta retained; this becomes decomposed, and is either discharged piecemeal, or in one putrid mass. The period intervening between the expulsion of the fœtus and that of the placenta may extend over several weeks. In cases of twins, one,

together with its secundines, may be expelled, and the other retained up to the full period of utero-gestation; and where the second is also expelled, there is frequently an interval of several days, during which time the patient is apparently quite recovered: then the hæmorrhage often sets in suddenly and profusely, and all the usual symptoms follow. Sometimes the fœtus having been expelled, the placenta is retained, and does not become decomposed, but remains organized and attached to the uterus; it enlarges in size, and is occasionally further enlarged by having cysts containing hydatids inclosed in its substance. The mass, after a certain time, varying much in duration, comes away with very nearly the same symptoms as those of abortion, and requiring the same management. The same thing happens occasionally without the discharge of the liquor amnii; the fœtus alone perishes, and perhaps at an early period; it then becomes decomposed, broken down, and dissolved in the liquor amnii; the placenta increases rapidly in size, so that a patient at the end of the second month may appear almost as large as she should at the fifth month. In most cases expulsion takes place before the ordinary time when quickening should occur, though there are sometimes instances

of the mass being retained for a much longer period. During the early months the liquor amnii may be discharged, but both fœtus and secundines retained; they become decomposed, and are gradually expelled in the shape of a brown, fetid discharge. While this process is going on, the health of the patient suffers; there is languor, sickness, and generally symptoms of hysteria; the signs of pregnancy decline, and frequently there is a serous discharge from the nipple. All these ailments pass off so soon as the uterus is completely emptied of its contents.

The longer the state of pregnancy has existed the nearer do the symptoms approach those of natural labour; and the process when completed is followed by after-pains, lochial discharge, and all the usual train of events occurring at such times.

The causes of abortion may be divided into predisposing and exciting; the predisposing depend upon the general state of the patient's constitution, the local condition of her uterus and its appendages, or some peculiar causes affecting the fœtus, and giving rise to its death. The predisposing causes are numerous, and consist, first, of such as are dependent upon the state of the mother's constitution: viz., menorrhagia, and irregular menstruation,

existing previously to conception; hysteria; various contagious affections, as for instance fevers; a peculiar predisposition to abortion induced by its frequent occurrence, for the more frequently it happens the more likely is it to happen again; conception occurring too soon after abortion or after natural delivery; severe and long-continued pain; tight lacing; and intestinal irritation, produced by worms or other causes. Age also has an important effect, for if a woman marries late in life and becomes pregnant, she is more likely to miscarry than if this event had occurred earlier; and the nearer she approaches to the period of the cessation of the catamenia, the more prone will she be to meet with this accident. This fact also holds good occasionally with women who have borne families, for having just arrived at the change of life they finish with an abortion, the catamenia cease, and they of course do not become pregnant again. The two opposite conditions of plethora and anæmia act, first by affecting the circulating system, and secondly by reacting upon the nervous system, producing nervous irritation.

The second class of predisposing causes consists of those which are dependent upon the local condition of the uterus and its appendages; tumours

of all kinds, whether malignant or non-malignant, as well as plurality of children in some instances, act by causing a too rapid distention of the uterine parietes; inflammation of the ovaria and adjacent parts; tumours or dropsy of the ovaria; and local congestion and excitement of the generative organs, produced and kept up by excessive sexual indulgence. There may also be an unyielding condition of the womb, strongly opposing the necessary dilatation of the organ; this may be combined with a state of preternatural sensibility not generally confined to the uterus, but affecting the whole of the generative organs, though either of these symptoms may and often does exist alone without the presence of the other. Again, there is exactly the opposite condition to this; we meet with an atonic state of the uterus, a weakness of the organ, almost if not actually amounting to a relaxation, more particularly of the cervix; this may be produced by any debilitating cause, as leucorrhœa or menorrhagia existing before conception, or it may occur after a protracted and difficult labour where this event takes place soon after.

The third class of predisposing causes are such as affect the fœtus and occasion its death; when this has occurred, the fœtus acts as a foreign body,

and there is frequently a tendency on the part of the uterus to expel it. The death of the fœtus may be induced by several causes: disease of the placenta or umbilical cord; excess or deficiency of the liquor amnii; malposition of the placenta over the neck of the uterus; constitutional and contagious diseases, as fevers, passing through the mother to the fœtus; and lastly, a syphilitic taint in either parent.

The exciting causes are—first, mechanical: local injury caused by violence of any sort; violent pain, either sudden or protracted; over-exertion and fatigue; excessive venery; vomiting; severe cough; the exhibition of drastic purgatives and emmenagogues; hot baths; bloodletting; and rupture of the membranes, in whatever way it may be produced. The second class of exciting causes are those which arise from mental emotion: excessive and sudden joy, grief or fright, anger, despair—in fact, every passion of the mind to which human nature is liable.

The prognosis in these cases must depend much upon the nature of the causes, both predisposing and exciting, those arising from the more violent mechanical causes being attended with the greatest danger, especially those induced by emmenagogues

and cathartics; and again, the danger is increased as pregnancy advances. The hæmorrhage, both in its immediate and after effects, is the principal thing to be dreaded, and according to its extent must our prognosis in a very great measure be guided.

As a general though not invariable rule, hæmorrhage in the earlier months is not immediately fatal; the majority of cases do well and eventually recover. It is, however, to this important symptom that our attention must be directed, whether it exists alone in the first stage or is combined with the second. Our treatment also must vary according to these stages: in the first we must endeavour to check the hæmorrhage, soothe the system, and prevent the accession of the second; but where the second has fairly set in, we must endeavour to guide the patient quietly through, or expedite the expulsion if circumstances require it. The treatment must, again, differ according to the nature of each particular case, and more especially according to the nature of the cause. Where the cause is merely predisposing, and we are made aware of the fact, or where the patient is known to suffer habitually from abortion, our endeavours must be directed towards the removal of the cause in order to prevent its occurrence; thus, when a state of plethora

is present, an antiphlogistic plan of treatment is necessary; bloodletting, either general or local, repeated in small quantities when requisite, taking the greatest care to avoid pushing it to the extent of inducing syncope; the diet must be lowered, all stimulants abstained from, too much sleep avoided, as well as having too much covering on the bed at night; mild laxatives should be administered, and cold bathing, particularly in the morning, is of the utmost service where the system is capable of bearing it. This plan of depletion must not, however, be carried too far, for if it is, we shall bring our patient into the opposite condition of anæmia, and probably cause the event which we wished to avoid. In cases of anæmia, light tonics should be given, and cold bathing employed where it can be borne; the diet should be good but plain, carefully avoiding all high-seasoned dishes, or anything likely to excite the circulation suddenly; our object is gradually to impart a permanent tone to the system, not to occasion a temporary state of excitement. Any irregularity of menstruation should be remedied before conception occurs; pain must be alleviated if possible; any intestinal irritation removed, as well as irritation of the generative organs, the cause of which should be strictly investigated and stopped.

Where a patient miscarries habitually, she should be strictly enjoined to abstain from sexual intercourse until the general state of her constitution is improved by proper remedies; and then when conception has again taken place, the same abstinence should be persevered in, at any rate up to an advanced period of pregnancy: and it may here be generally remarked, that in all cases of threatened abortion, great moderation, or, better still, total abstinence for the time being should be enjoined. If a syphilitic taint is known to exist in either parent, that parent must be treated accordingly; but it is extremely difficult to get at the real truth in many of these cases, and under such circumstances, where any doubt exists, it will be by far the most prudent plan to put both parents under a course of mercury and sarsaparilla. In all cases fatigue must be avoided, and in many perfect rest in the recumbent position must be persevered in for a considerable time; and all sources of mental excitement should be carefully shunned, inasmuch as perfect rest of mind is as essentially necessary as rest of body.

When the first stage has commenced, it does not by any means follow that it must necessarily pass into the second; the separation of the ovum from

the uterine parietes may be slight and at the lower part near the cervix; under these circumstances the mischief may be remedied, and the supervention of the second expulsive stage prevented, by great care and attention on the part of the medical attendant, and the strictest obedience to all rules laid down for her treatment on the part of the patient. Our first object is to arrest the hæmorrhage and induce coagulation of the blood in the open vessels; this may be done in many cases by the simple application of cloths wrung out of cold vinegar-and-water to the genital fissure and pubes; but where the symptoms are more severe, a piece of ice should be introduced into the vagina as well, taking care not to allow it to remain too long; again, in still more urgent cases, our most valuable remedy, and the one upon which we can most certainly rely, is plugging the vagina. This may be done by means of a soft cloth or sponge; perhaps the former is preferable, inasmuch as it is always ready at hand. The plug having been introduced should on no account be hastily removed; it may be allowed to remain in for two or three days provided no symptoms arise to prevent it; if it is withdrawn too soon, the coagula, not being sufficiently firm, are easily broken down, or come away with the plug, and the

hæmorrhage returns. Opiates in this stage are of the most essential benefit; they should be given in sufficient doses to produce a sedative effect upon the system, and not in small quantities, which would merely act as a stimulant. When properly given, they tend to prevent muscular contraction of the uterus, and thus ward off the second expulsive stage.

Having stopped the hæmorrhage, our endeavours are next directed to the prevention of the second stage; the slightest disturbance either of body or mind is liable to be productive of injury, and consequently rest in the recumbent posture, combined with the most perfect quietude, must be strictly enjoined and persevered in for a considerable time. The causes, both predisposing and exciting, must then be sought out, and the proper treatment adapted to the peculiar nature of the case employed.

When the second expulsive stage has once commenced, we cannot by any known means stop its completion; the hæmorrhage will continue on and off, and the uterine contractions will proceed until the organ is entirely emptied of its contents; nevertheless in this case our attention must still be directed to the hæmorrhage, inasmuch as the principal danger depends upon this symptom.

The above-mentioned remedies are equally applicable to this stage, not excepting the plug, which is really invaluable when used with discretion in cases of abortion. During the early months we are enabled by its employment to restrain the hæmorrhage, and if the pains are neither strong nor regular, we may administer a full dose of opium, and thus gain time by giving the uterus a temporary rest. Subsequently to this a stimulating cathartic enema may be given; the pains will then most probably become stronger and more regular, and the entire ovum be expelled at once without any portion being retained.

In the greater number of cases nature will do all that is requisite, and interference on the part of the practitioner will only do harm; still there are many cases which do require assistance, and it is in the management of these that cool judgment is required. The fœtus may be expelled, and the placenta and membranes retained; this may be produced by two causes—first by irregular contraction of the muscular fibres of the uterus, remediable by the exhibition of opium, or it may be necessary, if the symptoms are urgent, cautiously to extract the retained portion of the ovum; and secondly by adhesion, which may be in some instances overcome, and the uterus

made to expel its contents, by employing the ergot of rye, but in others, manual interference is necessary; the adhesion must be carefully broken down with the finger, and the whole mass removed, not a portion of it being left behind: where adhesion exists, it is useless to attempt removal until detachment is effected. There are some cases, in the more advanced periods (the hæmorrhage being severe), where rupture of the membranes is advisable, but these cases very nearly simulate natural labour, when this rule holds equally good as stated in the last section. The membranes sometimes protrude through the expanding and dilatable os uteri, and upon getting hold of them with the fingers we can in some instances remove the whole ovum with ease, entire detachment having taken place.

In almost all cases of abortion, we have greater and more rapid sinking than can be accounted for by the mere loss of blood; this condition is evidently dependent upon depression of the nervous system, and when existing to a moderate extent is rather beneficial, as it tends to lessen the force of the circulation, check the flow of blood, and give time for coagulation, at any rate when assisted by other means; it does, however, sometimes proceed to an alarming extent, and may require the use of stimulants to counteract its effects.

In all cases of abortion, either in the first or second stage, the vaginal discharge should be carefully examined, and no napkin applied to the genitals should be allowed to be put away without inspection, in order to be certain whether the whole or any portion of the ovum has been expelled; without this precaution we must necessarily be very much in the dark, and totally incompetent to give a correct prognosis as to the future result of the case.

The after-effects of abortion must be treated according to circumstances: where debility exists, as it frequently does, tonics, cold bathing, fresh air, and good diet will be necessary to recruit the strength; and in all cases our attention must be directed towards the prevention of a similar occurrence, by the removal of any predisposing cause which may exist.

RUPTURE.

The uterus may be ruptured at any period of pregnancy, but more frequently in the latter than in the earlier months; it is sometimes, though not invariably, attended with pain, and a sensation of something having given way is experienced by the patient. When it occurs during labour, which is the most usual time, (though fortunately this

accident is not very common) the pains suddenly cease, although they may have been previously strong and following in rapid succession; there is rapid and sudden collapse, accelerated and feeble pulse, dyspnœa and sickness; on examination per vaginam, the presenting part of the child is found to have receded, possibly beyond the reach of the finger, and the child may now be felt through the abdominal parietes external to the uterus. The child may thus pass through a rent of the uterus into the abdominal cavity, and may be accompanied by the placenta as well, though this may be retained and come away through the natural passage. The child itself may also escape partially, a portion of it only passing into the abdominal cavity, the remainder staying in the womb; the head of the child may be impacted in the pelvis, unable to pass through the outlet, and the uterus give way from this cause, the child of course remaining in situ on account of the head being fixed. Rupture may also occur without the escape of the fœtus into the peritonæal sac in another manner, for the same pain which expels the child by the natural passage may at the same time produce rupture of the uterus as well.

These cases are very serious and extremely dangerous, but far from invariably fatal; many patients recover under prompt and efficient treat-

ment, and many when even left to themselves eventually do well. The sudden collapse is attended with danger, which is often further enhanced by hæmorrhage into the abdominal cavity, and the blood thus having escaped may give rise subsequently to peritonitis. The fœtus having passed out of the uterus, it may be impossible to get at it, and acting as a foreign body it may also give rise to a similar result; or, becoming inclosed within a cyst, it may remain quiescent for years, when, from some exciting cause, inflammation is set up, suppuration takes place, and the remains are discharged piecemeal, recovery taking place if the patient has sufficient strength to bear up through the process. Again, ossification of the fœtus may occur, and in this condition, inclosed within its cyst, it may remain for an unlimited time, possibly to the end of the patient's life at some remote period, the cause of death being totally unconnected with its presence. Where the child has escaped either partially or totally into the abdominal cavity, there can be but one line of practice: provided it is possible to accomplish it, the hand must be passed into the uterus, and the feet brought down; and where the escape is total the hand must be passed on through the rent, the feet grasped, and delivery accomplished by the natural passage.

Much will depend upon the time at which the case is seen; a short period will be enough to close the rent sufficiently to prevent the hand passing, therefore the sooner the operation is performed the better. The os uteri may also be hard and undilatable, offering an insurmountable obstacle to the introduction of the hand. The question then arises as to whether the child should be removed by abdominal incision; it has undoubtedly become a foreign body, and a foreign body within the peritonæal sac must be a continual source of danger as long as it remains there; it may not immediately produce its effects, but at any time, from unforeseen exciting causes, it is liable to give rise to inflammation. Such being the case, its removal seems to be the most proper course, provided the state of the patient admits of it; this however should not be done without due consideration on one's own part and consultation with others. Where the head is firmly impacted in the pelvis, craniotomy must be performed with as little delay as possible, this being the only method which can be had recourse to under the circumstances.

CHAPTER IV.

Accidental concomitants — Tumours — Hernia — Syphilis and Gonorrhœa—Calculus—Distorted pelvis—Extra-uterine pregnancy.

TUMOURS.

Cases of labour complicated with tumours do not frequently occur; they however do occasionally happen, and, if the tumour be of any considerable size, require serious consideration. Tumours interfering with the process of labour may be various; they may be ovarian, they may be situated between the vagina and rectum, in fact in any part of the pelvis, or even within the uterus itself.

To lay down any positive rule for treatment is impossible; each case must vary according to circumstances; if the tumour is extra-uterine, detached, and moveable, it should be pushed up and kept above the brim of the pelvis until the head enters and prevents its future descent; if, however, it is fixed, other means must be resorted to: should it be

filled with fluid, a puncture will evacuate its contents, but if it is solid, the question arises as to the propriety of its removal in order to allow the head to pass, or the destruction of the fœtus by craniotomy without interfering with the tumour. Where the tumour is situated within the uterus, nothing can be done until delivery is accomplished; labour must be conducted according to general principles, and if it be possible to remove the tumour with safety at any subsequent time, it should be done, so that the same difficulty may not occur at a future labour.

HERNIA.

This accident may occur either during pregnancy or labour, or it may have existed previously. Femoral and inguinal herniæ are not, as a general rule, likely to be of any serious trouble during labour. Umbilical hernia is more troublesome and more commonly met with; care must be taken that the bowel does not protrude, for reduction is difficult if the pains are strong and following each other in rapid succession. Ventral hernia may happen during labour from rupture of the abdominal muscles, and requires the same careful treatment as the umbilical during this time. During pregnancy

and subsequently to delivery, these cases must be treated according to the general principles of surgery, and a truss adapted to the peculiar nature of the case applied.

SYPHILIS AND GONORRHŒA.

These affections are sometimes met with in combination with pregnancy, and their treatment under such circumstances becomes a matter of very serious consideration. Syphilis for its perfect and safe eradication requires the administration of a course of mercury, but such a proceeding would be more than likely to induce abortion; time may, however, be gained by destroying the sore on its first appearance with nitric acid, and postponing the curative treatment until after delivery. The infant, if affected when born, will bear the remedy well, and the simplest and most effectual manner of employing it, will be to apply some unguentum hydrargyri mitius on flannel to the knee; the continual motion of the child's legs being certain to rub it well in.

In gonorrhœa we are not justified in using such strong injections as we should do if pregnancy were not present. As far as the mother is concerned this affection is not of the same importance as syphilis; but still it is of consequence to get rid of the dis-

charge before delivery, on account of the child's eyes, gonorrhœal ophthalmia being almost a certain result. If the patient is known to have gonorrhœa at the time of delivery, the child must be closely watched, and active treatment employed upon the very first appearance of any symptom of ophthalmia.

CALCULUS.

Occasionally, though very rarely, a calculus may exist in the bladder, and if discovered before labour comes on, it should be removed at once; if however it is only found out at the time of delivery, the case must be managed according to circumstances. If the stone is small it may not produce any difficulty, but if it is large it should be pushed up, and kept above the brim until the head has entered the cavity, which will prevent its falling again; but if from any cause the stone cannot be thus got out of the way, and obstructs delivery, the question must arise as to the propriety of removing the stone, or performing craniotomy.

DISTORTED PELVIS.

The pelvis may be distorted in various degrees, from slight contraction, giving rise to somewhat prolonged and difficult labour, up to an extent of

deformity producing an insurmountable obstacle to the passage of the child without artificial assistance, on account of the close approximation of the pelvic bones. It unfortunately happens that the patient is often ignorant of the existence or nature of the deformity, and is informed of it for the first time by her medical attendant when labour comes on.

It does not, however, fall within the scope of this work to describe the various forms of difficult parturition arising from this cause, together with their treatment, the diseases of pregnancy being the subject to which it is devoted. If during pregnancy a distortion of the pelvis is known to exist to an extent sufficient to produce such an impediment to the passage of the head at the full time, that craniotomy must be had recourse to, premature labour should be induced as soon as ever the fœtus is capable of carrying on an independent existence, and before it has attained the necessary size to prevent its passage through the pelvic bones. In very severe cases this operation must be had recourse to much earlier, the safety of the mother being always considered in preference to that of the child.

EXTRA-UTERINE PREGNANCY.

The ovum may become impregnated in other situations than within the uterus, and go through its various changes of development as if it were in its natural position. This may occur in the ovary, the Fallopian tube, and abdominal cavity, though I must say I am somewhat sceptical as to the existence of this last, and think that at any rate the majority if not all such cases depend upon rupture of the ovary, Fallopian tube, or uterus itself, and consequent escape of the ovum into the peritonæal sac.

These cases are attended with all the usual signs of natural pregnancy, but of course do not run the same course or terminate in a similar manner. When ovarian pregnancy exists, rupture may occur early, or abscess may form, or inflammation be excited, giving rise to ovarian dropsy. When pregnancy occurs in the Fallopian tube, it does not, as a general rule, advance beyond a limited period, the tube giving way and the ovum escaping; it may, however, in some rare cases go on to the ninth month.

The termination of these cases is variable: sometimes internal hæmorrhage takes place, and

the patient rapidly sinks; in other instances she may recover from the immediate effect of the accident, the fœtus becomes inclosed in a cyst, and remains quiescent, possibly for years; sooner or later, however, it generally excites inflammation, and gives rise to abscess, which may open either externally through the abdominal parietes or into the intestines; and if the patient has sufficient strength to bear up under the weakening and irritating effect of the profuse discharge, the whole will eventually come away.

The diagnosis in the early period of these cases is both difficult and unsatisfactory; but where they are more advanced, we are led to suspect their nature by finding all the ordinary symptoms of pregnancy present, the abdominal tumour confined to one side, and the uterus in the unimpregnated state. Unfortunately, art can do but little; nature must be trusted, and such symptoms as may arise during the progress of the case treated according to circumstances.

THE END.

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