

ART. VIII.—*Observations upon some Forms of Uterine Hemorrhage occurring in connexion with the Delivery of the Placenta.*

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THE most trying and anxious moments of the physician's life, are those spent at the bed-side of cases of uterine hemorrhage. In the whole range of medical practice, few occurrences arise involving a more serious responsibility; requiring more of knowledge, firmness, and decision, or risking more the practitioner's character, and ultimate professional success. If there be added to these all-weighty considerations, the interest and sympathy which every accoucheur of a feeling mind must have for patients so situated, the incitements must be increased to study with the utmost care the nature of hemorrhage, and of the curative means for it, which art places within our reach.

Having for some years enjoyed considerable opportunities of obtaining obstetric knowledge, and having reflected a good deal both upon what I have seen in my own practice and what I have read and witnessed of the practice of others, I have been led to consider the nature of the causes giving rise to such hemorrhage, and the various occurrences which appear to promote, encourage, or prolong it, as well as the means of arresting its progress when it does occur, or of guarding against and preventing its occurrence in cases predisposed to it.

In the present paper I propose to offer a few considerations upon that hemorrhage which arises after the delivery of the fœtus, and which, with one exception(*a*), is strictly in connexion with the state of the placenta and its delivery, or else peculiar to the state of the patient's constitution, as influencing the condition of the womb. This hemorrhage may occur before, during, or after the delivery of the placenta. It may

(*a*) The bleeding from a torn perinæum, which I have included merely because it is sometimes dealt with in practice as uterine.

be internal or external. It may be gradually and stealthily serious, or considerable in quantity and productive of immediate and imminent danger. Indeed so suddenly and unlooked-for does it sometimes occur, that the accoucheur may be pronouncing his "all safe and well," and be leaving or have left the room, when he is summoned back to see his patient blanched and gasping.

Hemorrhage occurring after the birth of the fœtus usually depends on some one of the following causes:

1st. A too rapid delivery of the fœtus.

2nd. A too slow delivery of the fœtus.

3rd. A premature rupturing of the membranes.

4th. A partial and imperfect separation of the placenta.

5th. A portion of placenta being left behind after the rest is removed.

6th. A retention of an unattached placenta in a malposition.

7th. Upon atony of the uterus independent of any of these causes.

8th. Upon idiosyncrasy or hemorrhagic tendency in the individual.

9th. Upon an over distended state of the urinary bladder.

10th. Upon a laceration of the perinæum.

I shall consider each of these forms separately, and, as I proceed, will dwell on some points, not usually, I believe, noticed in books on the practice of midwifery, and especially upon those matters which might tend to prolong the hemorrhage, at a time when ordinary treatment should hold it under control. Amongst these, in addition to the nature of the ingesta allowed and the temperature of the room, I would especially direct attention to the mode of making pressure over the uterus, and to the state of the urinary bladder; each of which has, I feel satisfied, much to do in prolonging and causing a recurrence of hemorrhage. I shall consider these subjects *seriatim*, and, where it may appear useful, will refer to cases

illustrating each form, and to those signs for which the accoucheur must be watchful, as being frequently the first indications of approaching hemorrhage, and oftentimes of a hemorrhage internal and hidden from view, until developed too late for cure. They are signs independent of the indications supplied by the napkins, which should be always closely watched for some hours after delivery. The signs I allude to are,

1st. The peculiar state of the pulse.

2nd. The state of the uterus as felt through the abdominal muscles.

3rd. The sensations of the patient herself.

In resuming the several sources of placental hemorrhage, I will briefly dispose of those, upon the nature of which writers are all agreed, and will dwell more particularly upon those matters where I have presumed to offer any view, or to notice any symptom not generally recognised.

First cause.—*A too rapid delivery*. When the fœtus is rapidly delivered, and with little or scarcely any previous uterine pain, there is usually a considerable escape of blood just before or with the placenta, and immediately after it; and, in many cases, it will be of such a nature, as to constitute active and serious hemorrhage. Occasionally it will not occur until the after-birth has come away, and not unfrequently it will be then chiefly of the variety designated “internal hemorrhage.”

It would appear as if the uterus had not been exercised by previous attempts at contraction for a sufficient duration of time to give it that tone and power which will enable it to contract so perfectly as to completely close the mouths of its blood-vessels, or, having contracted, that it should permanently hold to, and continue that contraction, so as to prevent the hemorrhage, of all others the most insidiously dangerous, which arises from a little blood being first poured out, which coagulates, because it trickles slowly and is small in quantity, and whose coagulation plugs up and temporarily seals the mouth

or neck of the uterus, and so prevents, for a time, blood flowing outwards. The little goes on increasing, and the more it increases, the more the tendency to hemorrhage is increased likewise, because the gradual expansion of the uterus brings it to a state in which the mouths of the blood-vessels are more and more opened. This hemorrhage is often undetected until the woman faints, and then the previously unobservant accoucheur may, on introducing his hand, or by pressing over the uterus, remove pounds' weight of coagula, and perhaps at the moment the uterus makes an effort at contraction; under either proceeding, another gush and another swoon may release him from his charge, and leave to his suggestive conscience the thought—how a little watchfulness might have saved so terrible a catastrophe. Fortunately it does not always occur internally, but it does so frequently. On other occasions it will occur as what the nurses term “very free discharges.” A napkin will be wetted every three or four minutes until fainting takes place. This discharge may occur at the end of one, two, or several hours. Sometimes it occurs and ceases, and re-occurs again. In many of those cases the hemorrhage takes place with a distinct contraction of the uterus, palpable to the hand, but devoid of pain, evidently imitating a natural and protective action, but inefficient in degree. There is this difference between it and the perfect normal contraction, that though the attendant can feel the contraction,—as evidenced by the uterus growing hard and lessening in size, and getting from under his hand down into the pelvis, while its contents, either clotted or fluid blood, are expelled,—yet the hardness speedily lessens, and he feels in its place a soft and pulpy mass, swelling up and increasing under his hand, while, at the same time, the discharge ceases until the contraction again takes place, which it may do at various intervals of five, ten, or fifteen minutes. This hemorrhage is peculiarly liable to be mismanaged by a negligent or inexperienced attendant, who may consider the period of the apparent cessation as one promising arrest of the

hemorrhage, and therefore waits with his remedies until the discharge again appears; whereas the time for treatment is in the interval, and before the discharge comes on; which discharge is to be viewed as the result of an ineffectual effort of nature to close the womb. This kind of discharge, if it be not arrested by appropriate treatment, or does not wear the patient out, will occasionally cease of itself; nature succeeding in its struggle with morbid tendency, but frequently not until the sources of after evils are left behind. It is a state of hemorrhage which sometimes becomes habitual in after confinements, recurring after each delivery, and from which, if no one attack proves fatal, the woman recovers with a broken-down constitution, shortly to die of dropsy or some chest affection. This hemorrhage from an over-quick delivery is sometimes so rapid and considerable as to be immediately fatal.

The second form—*a too slow delivery*—presents nearly the same features as to the mode of bleeding, and differs only in the nature of the cause, which appears to depend more upon actual debility of the uterus, its wanting due nervous energy or muscular strength, or from being worn out and exhausted, or from general ill-health. And therefore it happens that this variety of hemorrhage will be more unmanageable and more serious than the first; and, as might have been anticipated, it will supply a larger amount of fatal cases. It is a variety often to be met with amongst women who have married too young, and who have had a numerous family. Such cases are of ordinary occurrence in such women, from 30 to 45, or to the period of ceasing to bear children.

The third variety—from *premature rupturing of the membranes*—I am not aware of having been noticed as a source of hemorrhage. Indeed I know there are accoucheurs who boast that they continually lessen the duration of a woman's pain and the period of their own attendance, by rupturing the membranes as soon as *the os uteri is fully opened*.

At that period its rupture and the escape of the waters will certainly hurry expulsive pains. But I have long felt satisfied that this operation, so simple in itself, considered so harmless, is oftentimes, though not always, a source of hemorrhage. If we stop to examine mechanically the results of rupture of the membranes upon the placenta, we can readily understand how this occurs. While the membranes remain unbroken, the action of the uterus, propelling the whole mass of its contents together, produces as though it were a double power, the uterus pressing upon the placenta above, and at the same time forcing the whole bag downwards, whereby all that force which acts upon the bottom of the bag, in proportion as it urges it forwards, causes a secondary action, by dragging upon the edges of the placenta to which it is attached. So that while the uterus is expelling the central mass, the edges of that central mass are dragged downwards by the membranes being forced forward as an unbroken whole. It is obvious that the moment the membranes are broken this secondary power is lost; there is no longer any power acting downwards, as being attached directly to the edges of the placenta, which is then only acted upon by the pressure of the uterus upon its maternal side. While the membranes were unbroken, the action was so steady and simply perfect, that its utility must be at once recognised as a means of detaching the placenta by a gradual and beautifully uniform loosening of its connexions, and preparing it for that perfect separation which in most cases appears to occur just as the child is being delivered. Now it has been forcing itself upon my attention for some years back that I met hemorrhage, or a tendency to hemorrhage, much more frequently in cases where the membranes were early ruptured, either designedly or accidentally; and further, that I had somewhat oftener to remove an adherent placenta in such cases. Such did not occur as an invariable rule, but their occurrence was so much more frequent in such cases, relatively to general practice, that I began to reflect upon the matter, and now con-

sider it to be quite in accordance with the nature of the cases that such results should have ensued. It may be argued,—“Why is not there always hemorrhage where the membranes are ruptured early, as they frequently are?” Now I do not think that the membranes are ruptured in one case out of twenty, by the natural efforts, until after the head has entered the pelvis, and is presenting at the vulva or pressing on the perinæum. Consequently, in the great majority of natural deliveries the membranes are carried down with the presentation; and I have no doubt that hemorrhage will arise, and the placenta be adherent, and have to be detached by manual efforts, in a vastly larger proportion of premature rupture cases than in the cases where the membranes were not broken, or did not give way, until the vertex was at the os externum. During several years that my mind has been directed to this fact, I cannot call to recollection a single case occurring in my own practice, where, if the membranes came unbroken to the os externum, I had to remove an attached placenta. Nature never does anything in vain; and if the membranes were not valuable in this and other ways, we would not have them continuing so constantly unbroken until the moment of expulsion. My own mind is so satisfied upon the subject, that I never rupture the membranes unless there be some strong reason for doing so.

The fourth variety—a *partially detached placenta*. This may arise as a consequence of the foregoing, as a result of imperfect uterine action, or as being caused by injudicious efforts to separate the placenta by dragging upon the cord. It is generally of a serious kind, and requires to be promptly dealt with.

The fifth variety—a *portion of placenta being retained*. This is generally the result of improper force in removing the placenta. It may occur in a rare case, even in the hands of an able physician, who, in peeling off an adherent placenta, if it be soft and unhealthy, may break a portion of it, leaving a bit of its maternal side adherent to the walls of the uterus. Every

physician who removes an adherent placenta should lay it out on a table, and look carefully over its maternal side, to see that there is no gap indicating a piece wanting, and which has been left in the uterus; if there be it will certainly do mischief in some shape or other.

The sixth variety—*a retained, detached, but mal-placed, placenta*. This variety, arising from an irregular position of the placenta, which, though perfectly detached, may lie awkwardly as regards the uterus, and so prevent its proper contraction, is well understood by practitioners who have watched the varieties of hemorrhage, where abstraction of the placenta at once arrests the discharge. When the uterus contracts upon the placenta, while it is yet retained in its proper position within that organ, it is evidently not only pressed upon, but it is even so compressed as to feel denser to the hand than it will feel after it is removed. This pressure, which is from above downwards, and from the circumference to the centre, is exercised, when the action is perfectly normal, uniformly from all parts of the uterus upon all points of the placenta, save at the os; and while it so continues there is no hemorrhage, because the compressing and the compressed parts are so adapted to each other that there is no room for blood to escape. And while hemorrhage is thus prevented for the time, the uterus is resting as if to gain renewed strength for its final contractile efforts after the placenta is expelled, and when greater energy still will be needed to extend its contraction still further, until its internal surfaces meet, and even its own substance becomes so compressed and condensed, and its vessels so reduced in size, and so acted upon by that crossing and interlacing of its fibres, which is so remarkable in the muscular structure of the uterus, that no blood of any consequence can longer escape. Such is the perfectly normal state, but the deviations are many, and one of them is the misplacement of the placenta; so that doubled upon itself, or coiled with a channel along its centre, or turned so that its amniotic surface is to the uterus, and its



maternal surface looking downwards or to one side, it interferes with the perfect adaptation we have alluded to, and therefore blood escapes. Such malposition is common, and when it occurs the placenta must be removed.

. Seventh variety—*atony of the uterus*. This class will include that atony which results from peculiarity of constitution, or from extreme prostration of vital power, or from the influence of disease. There are diseases which appear peculiarly to modify and lessen the quantity of blood lost during delivery. Thus, delivery occurring in Asiatic cholera was so bloodless as to be called by nurses “white confinements.” Delivery occurring while the mother is the subject of constitutional syphilis is rarely accompanied by hemorrhage; but in typhus and common fever the tendency to loss of blood is great. But there are other diseases occurring in the neighbourhood of the uterus which appear to diminish its power, to produce atony of the organ, and thus to predispose to hemorrhage. Of three such cases which I can recollect, and where there was bleeding from imperfect contraction and feeble energy of the organ, one had enlarged liver, one had enlarged ovary, and one had Bright’s disease of the kidney.

Eighth variety—*hemorrhagic tendency*. Such cases are occasionally met with, often in strumous subjects. The most unmanageable case I ever witnessed was a lady in whom the tendency to hemorrhage was so universal, that causes producing ordinary functional attacks in others were sure to cause bleeding from the nose, the lungs, or the bowels in her; and yet she was not sanguine or plethoric, and there was no disease appreciable: I am inclined to think it must have depended upon some peculiar state of the capillary system of vessels. Her confinements were awfully hemorrhagic.

Ninth variety—*an over distended urinary bladder*. It will sometimes happen that a physician called in after delivery to witness a case of flooding, may not have his attention directed to the state of the bladder; and a woman, from delicacy or

from inattention, may not allude to it: women, too, be it remembered, think nothing of retaining twelve hours' urine. Now it is easy to comprehend that a distended bladder, full of hot urine, must do mischief in such a case. Who would dream of applying a stomach warmer over the uterus of a woman just recently confined, and whose uterus was discharging blood freely. Yet, obvious as the matter now seems to me, it was only incidentally that my attention was fixed upon it about six years ago, by a lady who was suffering under hemorrhage. Smart bleeding had set in about an hour after delivery; at the end of two hours it was still uncontrolled, but upon her getting up and passing more than a pint of urine,—and in these cases the urine appears to be of a higher temperature than usual,—the bleeding immediately ceased, and did not return. Since then some similar cases have confirmed me in the impression that a bladder so distended with hot urine will cause uterine bleeding, or be a cause of prolonging it when it is present, and should in all such cases be looked after.

Tenth variety—*lacerated perinæum*. The bleeding which arises sometimes in the case of a torn perinæum is not unfrequently confounded with that which comes from the uterus. It is seen only on the napkins; and though the uterus be not large, yet I have seen cold applied over it, and ergot given, to control a bleeding which came from the perinæum, but which, after continuing for a couple of hours, had been quite sufficient to influence the pulse and to cause fainting. The attendant should, therefore, make sure in every such case that there be not a torn perinæum.

Having now enumerated those causes which appear to me to be concerned in the production of hemorrhage showing itself after the delivery of the child, I will venture a few remarks upon matters connected with the care of the patient. And first, are we right in even recognising the rule laid down by some obstetric writers, that if there be no over discharge, and matters are otherwise looking well, we may leave the room of

our patient within one hour after the delivery of the placenta? In two of the worst cases of uterine hemorrhage I ever saw, matters went on well for two hours, and in a third case hemorrhage did not appear until after the lapse of four hours. I conceive it should be a rule with the physician not to leave the house if there be even free discharge, or a soft state of the uterus as evidenced by the hand placed on the hypogastrium, unless he lives near, and has a nurse in charge upon whose watchfulness and intelligence he can rely; and it is hard to find such. He should be still more watchful if the pulse be in any degree irregular. I cannot call to mind that for several years this sign, upon which I place the utmost reliance, has deceived me. As long as the pulse varies thus,—twenty beats for one quarter minute, perhaps twenty-five beats the next,—above all, if it intermits, there is danger of hemorrhage, or hemorrhage is at hand. It is not a hemorrhagic pulse; it is not a plethoric pulse; nor yet a pulse of debility: but it is a pulse tolerably natural as to the character of its beat, but irregular as to the number of beats in a given time, irregular in rhythm, if I may so express it. There are, as I have before alluded to, three indications which often tell the accoucheur hemorrhage is beginning or begun, before blood is poured out externally, so as to arrest the attention of patient, nurse, or doctor. If blood comes freely the patient may herself call attention to it, and tell you there is “a flow,” or the nurse will display a napkin. But we are now especially referring to cases where these evidences may not be before the physician. These indications are, first, the irregularity of the pulse; second, the relaxing of the uterus; third, the morbid vision and hearing of the patient. And first, of the pulse: the patient has been an hour or so delivered; the accoucheur is watching her; he has just pressed the uterus and feels it is moderately firm and of moderate size; he has felt her pulse repeatedly, and it has been 100 for the whole hour; he feels it again, it beats slowly, it is but 30 or 35 for the half minute; he

is surprised how much it is coming down ; it has fallen from 100 to 70 in the minute, but the next half minute it beats 50 again. If he now puts his hand in under the binder he will find the uterus has risen somewhat in the pelvis, and feels something larger and something softer than it did a moment back. Here are two of the indications,—the condition of the pulse, and the condition of the womb. There may be now an escape of some blood upon the napkin, perhaps a gush, but frequently there is not; occasionally not a drop has as yet appeared externally, and the patient chats on and looks cheerful and well. Now is the moment of treatment,—if matters go much further the third and next indication may present itself; the patient tells him her eyes are dim, or there is smoke or a fog in the room, or she asks him with a stare did he hear that noise, or that wind, or that music, and swoons in a moment after. And now, if the uterus be felt for, it will be found high in the abdomen; in bad cases as high as the epigastrium, soft, flaccid, full of blood; and all this has been the work of a few minutes.

Be it remembered, therefore, that the pulse, the uterus, and the patient's sensations will often announce the approach and presence of hemorrhage at a time when the patient's replies, and the state of the napkins would have declared all was doing well. They are, therefore, to be assiduously watched. And, while speaking of these indications of approaching hemorrhage, I will allude to those circumstances which, if there be hemorrhagic tendency, are calculated to keep it up, or to increase it. One is an improper mode of making pressure over the uterus after the placenta is delivered. The physician sometimes places his hand directly above the pubis, laying it flat upon the anterior wall of the uterus, and so pressing it back against the spine. This pressure impedes the natural flow of blood in the part, and retards its free egress from the veins out of the womb; it does mischief too by lessening the size of the vena cava, which is pressed between it and the spine, where the iliac

veins empty into it, and so blood is kept in the uterus, and engorgement of its vessels thus produced. There is much in the mode of using pressure. I think it is Dr. Collins who, in his able work, points out that the uterus should be followed down into the pelvis with the hand; but the matter is so all-important that we cannot be too minute in our directions for regulating it. This pressure, which must not be in such a direction or such a way as to obstruct the venous circulation of the uterus, should be uniform and steady. It should not be forcible, or so as to produce pain, but should be a gentle, yet firm, grasping of the womb through the abdominal coverings; the hand being introduced above the womb, the palm looking downwards, the back of the hand towards the stomach, and the edge towards the spine; thus will the palm be able to adapt itself over the fundus of the uterus, and to guide it down into the pelvis, or resist its expansion upwards, or to aid it in expelling either its contained placenta or clotted blood. And if the hand is so placed and exercised with a gentle grasping and rubbing motion,—rubbing, as it were, the uterus upon its contents,—such a manœuvre will not only empty a loaded womb, but will induce healthy contractions, and very frequently, in my hands, has even detached an adherent placenta. In connexion with improper pressure as a source of increasing bleeding, or at least of keeping it up, I would here again allude to the bladder being allowed to accumulate urine, which will act like a warm fomentation to the bleeding womb.

In the directions for managing a lying-in patient labouring under hemorrhage, I will be minute, even though that minuteness may expose me to the hazard of recapitulating matters, much of which may be said to be known to every tyro. Be it so; yet am I satisfied and impressed with a thorough conviction that in ordinary practice they are not observed to the extent they should be, and that the consequences are most lamentable upon many occasions.

The physician should not only have a suitable pocket-case, containing laudanum, ergot, catheters, scissors, &c. &c., but he should be supplied with an elastic globular syringe, capable of holding from six to eight ounces of water, and having an ivory pipe four or five inches long, with eight or ten apertures at the top, some of them at the side. There should be an ivory shield between the pipe and bottle, which may be of Indian rubber, or gutta percha. I would no more think of going to attend a lying-in case without such a syringe, than I would of going to a case of apoplexy without my lancets. When it is necessary to use cold water as an injection into the uterus, the advantage of this kind of syringe is, that it can be filled and emptied with one hand, so that the other hand is free to press upon the uterus at the same time. For example, the accoucheur is in attendance upon a case of uterine hemorrhage arising after both fœtus and placenta are delivered. His left hand is occupied inducing suitable contractions in the uterus, while with his right he fills the syringe from a basin of cold water, passes the pipe of it into the vagina, directing its point for the uterus, and pressing the shield steadily against the perinæum, he closes his hand upon it, and so empties the full contents of it directly into the uterus. A large sponge should lie ready at the vulva to catch the water as it comes back, and thus prevent unnecessary wetting of the bed and patient. By this means the cold water is brought forcibly in contact with the bleeding vessels themselves, and the salutary effect is often as immediate as it is valuable. I am so satisfied of the superiority of this mode of applying cold over all others, that I now never use either cold wet napkins, or the douche, which were such common remedies when I was a student, and which, I regret to add, are still used much more than they ought to be. I have been using cold in this way for years, and I have never witnessed from it any of those consequences so much dreaded. I have no fear of the water passing into

the fallopian tubes, or thence to the cavity of the peritonæum; and I never saw inflammation, either of the womb or its appendages, or even common cold, supervene on its application. The left hand, which is above the uterus, should be occasionally plunged in cold water, so as to keep its temperature low, else, when it gets heated, it will cause mischief. So soon as the bleeding is controlled, and the physician feels satisfied with the condition of the uterus,—and he should not feel satisfied while it shows any tendency to enlarge and get soft under his hand, or while any one spot of it, though the rest be firmly contracted, feels soft and yielding under the fingers,—he may put on a binder. This should be done without allowing any exertion upon the part of the patient. The binder should come down as low as the trochanters, otherwise it will after a time slip upwards. Under this binder, and immediately above the uterus, should be placed a pad, made either of a couple of tightly folded napkins, or a good toilet-table pin-cushion; it should be the size of a thick duodecimo volume, and should be introduced *edgeways*, so as to be a shelf above the uterus, and between it and the stomach, and kept there by the bandage being tightly drawn over it. The pad may be removed after eight or ten hours. A great deal depends upon the proper placing of it and the binder. I do not think the doing of it should be left to a nurse, as it too often is. As to a plug or tampon in the vagina, as a means of controlling bleeding after the delivery of a full-grown fœtus,—though some respectable accoucheurs have recommended it,—I believe no intelligent practitioner uses it now. I never use it except in hemorrhages occurring in the earlier months of pregnancy, when the uterus is yet small, and could not expand sufficiently, from internal hemorrhage, to cause death. I once saw this plug in consultation-practice, where the patient died with a uterus full of blood.

Now this treatment has reference merely to the bleeding,

but the accoucheur will have to consider whether there be a bit of retained or adherent placenta. This he may know by examining the placenta itself; and if there be, and that the bleeding does not yield, the hand will have to be introduced, and the bit sought for and removed,—an operation much more difficult than removing a whole placenta or a child,—one requiring all the knowledge, coolness, firmness, and gentleness of hand of which a physician is capable,—one of difficulty to him and hazard to his patient,—wherefore it must not be had recourse to without full reason. And should he not be able to see the placenta, he must then judge for himself by making all inquiry as to whether it came away of itself, or by pulling on the cord, or required the hand to be introduced for its removal. No rule can be laid down for such a case, but experience and observation will generally guide to what is right. Should the hemorrhage occur while the placenta is retained, it will have to be removed, and here judgment must also decide whether it be merely a retained loose placenta, or a morbidly-adherent placenta; because, in the first case, it will never be necessary to introduce the hand, and very frequently not necessary even in the second variety, but it may occasionally require to be removed by detachment with the fingers. Now I am satisfied that the feeling communicated by drawing on the cord in the following manner will always decide the nature of the retention. If the uterus be kept steady with the left hand, and the attendant draws the cord tightly with the right hand, and then lets it go, feeling it still as it escapes, the sensation conveyed to his hand will be that of resistance only, if it be merely a loose placenta, retained by spasmodic or normal contraction of the uterus; but if it be an adherent placenta, the cord, when so tightened, and then let go, will escape from him with a decided spring, or resiliency, such as that felt upon raising a stone by the vacuum cord and leather process displayed in a schoolboy's "soaker." Once felt and noted,



the feeling becomes as familiar to the hand as the crepitus of a fractured bone, or the cat-purr in narrowing of a blood-vessel. Here the well-directed pressure from above, and steady but gentle traction by the cord will always dislodge the retained placenta, and will frequently succeed, too, with the adherent one; the exceptions generally being where the woman has not gone her full time, or where the contracting action of the uterus has ceased for some time before the case was seen. And, be it remembered, that a placenta so expelled by pressure from above will come away entire, no portion being left behind. In very thin subjects pressure made with the thumb upon the aorta, where it lies upon the last lumbar vertebra, will occasionally aid in arresting hemorrhage, but such pressure cannot be kept up, and is only of temporary advantage. Having now dwelt sufficiently upon the mechanical means useful in stopping hemorrhage, it is right to consider other remedies.

Ergot has been much spoken of, and extensively used, but my own experience of it is, that it is of most use in cases of atony of the womb, or where its power is sluggish; but it does not appear to me that it does good if the labour has ceased for a couple of hours. I am bound to say that, given in the manner recommended by Dr. Beatty, I have faith in its power as a preventive of hemorrhage, in cases where a predisposition to such exists. Acting upon the advice contained in his paper, I have given it in three cases of marked hemorrhagic tendency, just as delivery was taking place, and in each with decided success. Applying the child to the breast immediately after delivery has been ably advocated by a writer in the *Dublin Journal*. I think the child should be placed at the breast as soon after delivery as other matters will admit of, and I have always so directed; but I am not quite clear that this does more than, by creating a tendency to the breast, act as a sort of derivative to lessen the tendency to the uterus. But this is useful, and, therefore the advice ought to be fol-

lowed. The employment of stimulants and restoratives is not necessary to be discussed here : every physician will use them in flooding cases as he sees necessary, and that they may be administered even when patients cannot swallow, or cannot retain them on the stomach, is well known to all, and is exemplified in Cases VI. and VII. Anodynes are frequently given immediately after delivery to women who say they are subject to after-pains. I gave them myself some years ago, but latterly I began to think they did mischief in some cases, increasing the tendency to bleed by relaxing the uterus. I now, in ordinary cases, never give an anodyne within the first twelve hours.

Though objecting to the plug as a means of arresting hemorrhage after delivery at the full time, it will be seen from Cases VI. VII. XVIII. and XIX. that I have found it useful in cases of bleeding in the early months of pregnancy, and also in a remarkable case of hydatids. Case XVIII. shows how cautious we should be in concluding that the risk of hemorrhage is over if a complete ovum comes away, even in the early weeks of gestation. The double pregnancy in that instance is worth recording. Case XII. illustrates bleeding from a rent in the perinæum. An accoucheur of great experience has given it as his opinion that a lacerated perinæum never occurs in unassisted labour ; I have certainly seen it in labour where the woman was delivered alone. Yet I feel satisfied that improper pressure in guarding, as it is termed, the perinæum, is the cause of many rents. The perinæum never should be pressed by the hand, which should be applied only to guide the presentation forward. Sutures, for a torn perinæum, have been advised, but I do not think union by the first intention can be obtained while the lochiæ are flowing. I have seen the attempt fail in more than one case.

I will now conclude by a short reference to the after treatment of hemorrhage. In the after consequences of severe loss

of blood, the train of symptoms is oftentimes exceedingly distressing. The irritability of stomach, the agonizing headaches, the thirst, and total loss of appetite, together with the absence of all mental and bodily energy, constitute an assemblage of symptoms calling for careful investigation and able treatment. The headach is palpably dependent upon the state of the heart and circulation,—the quantity as well as the quality of the blood going to the head.

The *bruit* and *fremissement* which the physician hears and feels over the cardiac region, the patient will sometimes tell you she is conscious of, and that the “booming” which she feels going up her neck is the cause of her pain, while her sallow, tallowy aspect, too clear eyes, and bloodless lips, indicate the source of her sufferings. Now local applications are of little value in this headach. Leeches are mischievous, yet I have seen them applied; blisters are valueless; cold applications give momentary relief. To renovate the circulating mass, and to control the heart's action, are the indications to be attended to. A strong belladonna plaster should be placed over the heart. The tincture of digitalis should be given in Bewley and Evans's effervescing iron mixture; this valuable chalybeate quiets the stomach, and gives appetite, while the digitalis lessens the violence of the heart's action and increases that of the kidneys,—an important point in a malady so liable to end in dropsical effusion. Ten drops of the digitalis should be given in one or two ounces of the iron mixture three times a day; and a mild hypnotic at night when restlessness and loss of sleep call for it. Opium and its preparations seldom agree; if they produce sleep, the heart's action and headach are generally worse the next day. The sedatives which answer best are henbane, hops, lactucarium, and camphor, with syrup of poppies. Should the bowels be obstinate (and they generally are), they should be emptied by mere soap and water or gruel lavements. The bed-chamber should be thoroughly ventilated, and the patient should be kept a good deal in the recumbent position, as that in which the heart will act less tumult-

tuously, the circulation will be easiest performed, and the head freest from pain ; there will be also in that position less irritation of stomach, and less tendency to faintness. Every kind of bland nourishment should be given, a little at a time, but often, light soups, jellies, claret, and once a day an egg beat up with a couple of drachms of sherry wine or brandy. Easy carriage exercise, as soon as she is able to bear it, and change of air,—if in the season, to the sea,—will gradually restore the powers of life. But such cases are tedious and require close watching, for the slightest indiscretion in diet will throw them back, and it is often many days before the stomach will bear any solid nutriment whatever. A little toast soaked in weak tea or in port wine negus, chicken panada, calf's sweetbread, and similar articles of diet, must constitute the first attempts at what often brings on vomiting and diarrhœa if given too soon.

Finally, once uterine hemorrhage has shown itself in a confinement, there is great liability to its recurrence in subsequent labours, and the accoucheur will, therefore, be on his guard, and prepared to combat a morbid action, which, although a vast number of patients recover from it, yet leaves behind those diseases which afterwards abridge many a valuable life, although death, when it comes, is charged upon other causes, the true cause having been “flooding, and the shocks of repeated uterine hemorrhage.”

The following cases are given in illustration of the views now put forward. The reader will see their bearing upon this paper, and they have been given in as brief a manner as possible, so as to fasten attention merely upon the point where each case has reference to some opinion advanced, or is illustrative of one of the varieties of hemorrhage.

CASE I.—Mrs. P——, a large, well-made woman, was delivered by a single pain, and without assistance ; child and placenta came away together. The uterus did not contract well, and violent hemorrhage had set in by the time I arrived. Cold injections, friction, and steady pressure over the uterus,

finally induced contraction, and stopped the hemorrhage, but an hour elapsed before the womb resumed its normal size and feel.

CASE II.—Mrs. W——, a weak and delicate woman, suffering severely from grief for the loss of a child that was drowned; had a feeble and tedious labour; presentation natural; was twelve hours ill; placenta came away naturally; ordinary discharges for four hours; but, as her pulse continued to vary, I did not leave her, but kept watching the womb and resisting its tendency to enlarge. At the end of that time violent hemorrhage set in, though she had got several doses of ergot; it was finally controlled by pressure, and cold water thrown up *per vaginam* into the womb.

CASE III.—Mrs. S——, her fifth child, was in labour several hours, with feeble and defective pains, before the head appeared entering the pelvis; when it did, the membranes immediately gave way, it being a face presentation. In one hour after delivery there was still free bleeding, and the placenta had not come away. It was found to be adherent; and had to be detached with the hand.

CASE IV.—Mrs. L——; her fourth child; good delivery, but membranes had ruptured early; placenta had not come away at the end of an hour; there was free bleeding; and an adherent placenta had to be detached.

CASE V.—Mrs. P——. A case in which there was good labour; child expelled in the ordinary time, but the placenta not coming away within an hour, and there being a free discharge, I passed my hand into the vagina, and found the placenta in the os uteri, where it had fallen down, and was doubled upon itself, so that the finger readily passed in through a sulcus or slit formed by its amniotic sides being opposed to each other, without being in actual contact, and along this sulcus, as in a channel, blood was flowing. Felt through the abdomen, the womb appeared oblong and softish. Upon the removal of the placenta the bleeding ceased.

CASE VI.—Mrs. C——; premature confinement at the fourth month; was called to attend her, but being from home, the case passed into the hands of a *femme sage* of some reputation in the neighbourhood. Upon my return I called to inquire for her, and the nurse told me she had been delivered about an hour before of a small foetus, and assured me the placenta had come away. I was recalled in the course of the night and found her pulseless from loss of blood; the nurse again assured me the placenta had come away with the foetus, and was indignant at being asked the question a second time. Resolving to judge for myself, I this time examined and found a placenta projecting from the uterus and keeping it open. I removed it, and the bleeding, then but a dribbling, ceased; yet the patient's strength was so far gone, that she was unable to swallow; even half filled tea-spoons of brandy and water, threatened suffocation. I used a bit of sponge, which, squeezed between my fingers, was made to convey the necessary stimulant, nearly guttatim along the tongue and fauces; and, after a night spent in efforts to restore warmth and reaction, and by the time she had taken over eight ounces of brandy, she rallied, giving me a useful lesson of how far I was to trust a nurse's knowledge.

CASE VII.—Mrs. F——; was called to her at night; she had been delivered prematurely, about ten hours before, of twins, being pregnant somewhat about the fourth month, and the physician who attended her had been called away from her to a distance into the country. Found her cold, blanched, and pulseless, from uterine hemorrhage; was told there had been a gradual and constant draining since morning; there was considerable jactitation, and everything given to her was rejected from the stomach. Upon examination, I found a loose placenta hanging down from the uterus into the vagina, which, with some difficulty, I was able to remove, after which I injected cold water along the passages, and then used a sponge tampon. The bleeding was immediately controlled, but the

collapse still continuing, and all remedies failing to quiet the stomach, I directed one ounce of brandy, and three of strong jelly soup, to be thrown up the rectum with a tube every hour. She got ten such injections through the night, which, aided by warm applications, restored her.

CASE VIII.—Mrs. ———, the lady of a medical man residing in the country. I was required to see her in consultation with her husband and two other physicians. Was told she had been confined three weeks before; that she had a good deal of hemorrhage after the delivery of the child, and that the placenta had to be removed by her husband, who assured me it all came away; that the bleeding was pretty constant, ever since, but not much at a time, and that latterly the discharge of blood was mixed with matter so offensive, that ulceration of the womb or cancer was dreaded. The lady had quite the green paleness attendant upon uterine mischief; her lips bloodless; pulse a flutter; action of heart inordinate; dry, hot skin; glossy eyes; violent headach, and fainted upon the slightest effort to move or be raised even a few inches from her pillow; her stomach irritable, and rejecting everything. From a peculiar smell at her bed-side, I again asked about the placenta, but was given the same assurance, that it came away entire, and I was asked to examine and satisfy myself. I did so with the fingers of the right hand, aided by the left from above the uterus, and removed from the patulous mouth of the flaccid womb a piece of placenta, the size of half an orange, in a state of considerable decomposition, and with a portion of membrane attached to it. The womb was injected with cold water, a mild hypnotic draught was administered, claret and chicken jelly ordered, with Bewley and Evans's effervescing chalybeate thrice daily, to settle the stomach and serve as a tonic. And I must here do justice to that remedy by remarking, that in irritable stomach after hemorrhage, and various female diseases connected with uterine mischief, it is one of the most valuable medicines I know of. The lady made a good and rapid recovery.

CASE IX.—Mrs. W——, an exceedingly delicate woman, the subject of numerous illnesses, and the mother of a large family. All her labours had been difficult and tedious. I had attended her in several confinements, but upon the present occasion there was evident failure of her constitutional powers, and the uterine action was feeble in the extreme, and long intervals between the pains, making a marked contrast with all her former confinements, which, though tedious, had always presented good uterine action. She was at last delivered, after twelve hours from the first pains. The placenta came away easily, but there was a continued flow, in spite of every effort to repress it. She got ergot, cold injections, and finally the hand had to be introduced before the torpid and flaccid uterus could be got to assume anything like healthy contraction. She required constant watching for many hours, and made a slow recovery.

CASE X.(a)—Mrs. D——; had a good delivery. It was her second child, and everything went on fairly up to the delivery of the placenta, which came away naturally in half an hour. It was followed by active hemorrhage, for which I was in some degree prepared, as she had told me that she had violent floodings after her first confinement. The case was one of imminent danger for several hours, after which she made a slow and precarious recovery. This lady was subject to epistaxis; had, when a girl, bronchial hemorrhage; had also hemorrhage from her bowels; and upon one occasion, an apothecary, who applied leeches to her chest, had ultimately to use sutures before he could stop the bleeding. She was beautifully fair, and of a good make; no heart disease, or other organic affection.

CASE XI.—Mrs. ———. After a moderately quick delivery, and the placenta being expelled by fair pains, within

(a) This case occurred previous to the publication of Dr. Beatty's advice as to ergot as a preventive.



about fifteen minutes, smart discharges, as nurses term them, set in, which, in despite of treatment, continued at intervals for a couple of hours: one time getting less, and then increasing again. There were no clots, but a too free discharge of fluid blood. In such cases I always enforce strict quiet for some hours, and do not allow the patient to be stirred or moved. This lady became very urgent to pass water, and as she required to rise up to do so, I refused to permit it, as blood was still flowing very freely. She now stated she had not passed water for nearly ten hours, and as there was some fulness over the hypogastrium, not very definably felt through fat and doughy integuments, I left the room for a moment; she passed fully a quart of very hot urine, and when I returned the bleeding had ceased. Analogous cases have further satisfied me that in her case the bladder of warm water laid over the uterus kept up the bleeding.

CASE XII.—Mrs. O'K——, a delicate made woman, delivered of a large child, with strongly ossified head, and with face to pubis. The perinæum received a laceration of about half an inch, from which there was smart, continuous bleeding, which, after some time, induced faintness. The uterus was well and firmly contracted, and the bleeding was stopped by pressing a piece of waxed sponge against the bleeding surface. I had not at that time employed matico, but my experience of its use in bleeding from small vessels, within the last couple of years, would induce me to recommend it in a similar case. And from the violence with which the artery lying in the recto-vaginal septum pulsates in strong labour, I apprehend the possibility of a laceration involving one of its branches, that might, under such circumstances, warrant its being tied.

CASE XIII.—Mrs. M'G——, her fourth confinement; was delivered safely at the end of two hours' labour; placenta came away in half an hour. Went on well for two hours, save that the pulse continued irregular, and that there was a tendency in the uterus to feel soft at its fundus. I had risen from the bed-

side to wash my hands, when she exclaimed, "Where is that organ?—there is smoke in the room," and fainted. It seemed as the work of a moment, and yet I had a uterus to deal with which had suddenly expanded, till it held, perhaps, forty ounces of blood. I immediately expelled the blood, used cold injections, and there was no return of the bleeding.

CASE XIV.—Mrs. M——, the mother of nine children, stated to me that she always suffered from severe losses, and was subject to faintings after delivery. I was, of course, watchful. She had a good confinement, with free, but not excessive discharges. The placenta came away in fifteen minutes after the child. As the bleeding continued more freely than was satisfactory, I continued to watch her, keeping cold cloths applied, and the temperature of the room as low as possible. At the end of two hours her pulse still continued to vary, so that I made up my mind to remain in the house. At the end of five hours the uterus began to enlarge, and she had a fainting fit. Emptying the uterus, and injecting cold water into it, controlled the bleeding, and there was not any return. This case illustrates two points: the value to be attached to the pulse as a premonitor, or indicator of hemorrhage, and that there can be no rule as to when an accoucheur may leave his patient. The rule must be his own skill and judgment as to when he goes or when he stays.

CASE XV.—Mrs. C——. Saw her in consultation with the late Dr. ——. The case had been one of shoulder and back presentation, of twenty hours' duration. She was delivered by turning, immediately after my arrival, and the attendant physician found it necessary to remove an adherent placenta, after which she was carefully bound up, and a napkin applied. The nurse watched the napkins and the attendant remained at the bedside, and everything appeared to go on well. But in three hours after I was again summoned to see her, in consequence of a fainting-fit. The physician and nurse agreed there had

been no external hemorrhage, but the uterus was enlarged up to the umbilicus, and was full of blood. She never rallied.

CASE XVI.—Mrs. D—— had been delivered by a nurse, and was said to be doing well. Two hours after I was called to see her in a fit of syncope. I questioned the nurse as to hemorrhage; there was none, and she produced the napkins to vouch for her accuracy. They were but soiled after the ordinary manner, and there was no blood in the bed; but the uterus was full, soft, and above the umbilicus, pressure upon it, after the manner already described, expelled a large mass of clotted blood, when, cold water being injected, the uterus contracted to its natural size, and, under suitable treatment, the case did well.

CASE XVII.—Mrs. —— had been attended in her two previous confinements by eminent accoucheurs; but in both an adherent placenta had to be detached by manual skill. I expressed my hope that this would not occur upon the present occasion; I was accordingly carefully watchful, and, by the most cautious examinations, avoided injuring the membranes, which came unbroken to the os externum. I had my left hand upon the uterus, which I followed with it down into the pelvis, as the foetus escaped from the vagina, while, with a gentle and grasping motion, I moved the uterus upon its contents (the placenta); with the right hand I held the umbilical cord steadily, but not draggingly, making the cord a means of communication between my two hands. The placenta was expelled after a quarter of an hour of such manipulation, and the case did well.

CASE XVIII.—Was called to see Mrs. S——'s cook: case of smart hemorrhage; married three months; pregnant two months; os uteri slightly open, but hard; injected cold water; bleeding stopped; placed a plug in the vagina. Next morning, upon removing the plug to replace it with a clean one, an ovum in its bag, which was unbroken, came away after the

sponge; used the syringe and cold water; no bleeding. Was summoned to her upon the fourth day for very smart hemorrhage, and found a second ovum in the os uteri, but its bag was broken, the placenta remaining; the bleeding continued for a full week, during which the vagina had to be kept plugged.

CASE XIX.—Mrs. C——, aged 40, the mother of a grown-up family; was seized with violent bleeding from the uterus, some hours before I saw her; asserts positively she is not *en-famille*, though the uterus is as large as at the ninth month; the os uteri is open, the size of a sixpence, but hard and irritable under the finger; felt some soft, loose matter beyond the os uteri, which, upon removal, proved to be a mass of hydatids; used the cold injection; the hemorrhage ceased when I placed a plug in the uterus; continued to syringe daily for three days, at the end of which time she passed, with some uterine action, a *pot de chambre* full of hydatids, after which the uterus continued to bleed for a couple of hours, but was finally controlled by constant washings with cold water.

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ART. IX.—*Observations on Nasal Polypi.* By WILLIAM COLLES, F. R. C. S., Surgeon to Steevens' Hospital, &c.

It is not my present intention to enter into a systematic description of the various forms of polypi, which are sufficiently known and described by authors, but merely to make some remarks on that form which is more generally met with in practice, and to point out, I hope, some improvements in its treatment.

Polypi are in general observed to occur at the middle period of life; however, no age or sex is exempt from the disease. I have seen it in a child of eight or nine years of age, and again I have known it to commence in a man of seventy. I have remarked it also in two persons in the same family.

Polypi are said to arise from the spongy bones; this, as a