INTRODUCTION TO A DISCUSSION ON PLACENTA PRÆVIA.

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THE collective wisdom of the authorities of this Section having pronounced solemnly the fearful word "Blood," proceeded further to do me the honour of asking me to open a discussion that should, as the result of our combined talents and experience, draw out the plan best calculated to arrest its terrors and to staunch its stream; and then the same authoritative wisdom also thought that it would be helpful to the profession generally if that formidable cause of blood loss—namely, placenta prævia—were the immediate subject of your consideration.

Thus it is that I find myself in this responsible position; and I would ask you kindly to take off some of its weight, the more so as the time allotted me is only fifteen minutes—a very short time to treat of only one case of placenta prævia—and you only ten minutes. As, therefore, all of us must necessarily be brief, I shall confine my remarks to the treatment of this condition, passing over the theories which have been advanced—and will be advanced later on in this Section—to explain the cause and nature of the position, and only very briefly touching on the after-treatment.

And, because I am anxious to present so important a subject free from personal considerations, lest these may be a hindrance to our conclusions, I shall avoid all reference to the authors of the various plans which have one way or other within the last thirty years reduced the death-rate from 30 per cent. to somewhere near 5 per cent. But I may say this much, that the early handling of these cases and the general antiseptic management of midwifery cases, both during and after delivery, can rightly claim to have had much to do with these excellent results. I think we shall all agree:

1. That when the placenta is inserted somewhere within the lower third of the uterus, there is very generally a liability to hæmorrhage. It would be difficult to say that it is absolutely "unavoidable," because I have seen the placental edge a little over the os without the slightest bleeding; and doubtless there are cases of what is called "accidental hæmorrhage," which have occurred with a low insertion of the placenta. But I take it that for practical purposes, when the placenta is inserted about or over the os uteri, hæmorrhage is to be expected before or upon the supervision of labour, whether premature or at full time.

2. I think also most of us will agree that, when once hæmorrhage has declared itself, there is no security for the patient, but that her life is in imminent danger from liability to recurrent bleedings.

3. My experience teaches me, and I think I shall gain your assent to this also, that the relative position of the placenta to the os has no influence on the frequency or quantity of the blood loss. In other words, whether it be marginal insertion or central, the risk is the same.

If you join assent with me so far, I would submit this proposition as a deduction from the foregoing, as a rule of practice, namely:

That as soon as we ascertain the case to be one of placenta prævia, we should make arrangements for terminating the pregnancy at the earliest possible time. I believe also I shall have your assent to this, the importance of this rule having been constantly shown in my practice: as far as possible, we should not leave our patient; certainly not to an indefinite future.

Having accepted this rule, our next consideration is: In what way and by what means we shall accomplish this. Perhaps it will clear the ground if, before we proceed in this direction, we take note of the main points we have to combat. And, first, we desire to prevent further bleeding; secondly, we wish to overcome the resistance the substance of the placenta presents to the pas-

sage of the fœtus. But also we cannot in the majority of these cases leave out of consideration the state of anæmia which the patient presents from the hæmorrhage which has already occurred. Sometimes so profound that the smallest movement, even ordinary examination, extinguishes the pulse. Of course, in all cases, it behoves us to carry out our manipulations with as much gentleness as possible—choosing, especially in the severer cases of anæmia, that plan the least disturbing.

Let me consider these points more completely:

1. The bleeding can be stopped by pressure: either by tampon; by the head being pressed down by the uterine efforts, or drawn down by the forceps; or by the leg and breech drawn down if presenting, or made to present by turning.

With regard to the pressure by the tampon, I believe the general consensus in British midwifery is against its use, and with this I am in accord—partly, because, unless perfectly done, and this is difficult, it is of no use; and if perfectly done, it is very distressing to the patient, especially if it be necessary, which it often is, to renew it to avoid septic generation. Still, it has some advantages, because, by distending the roof of the vagina, we also dilate the os, and provoke uterine action. But its action is tedious, and lacks the precision afforded us by the more recent methods.

But the uterine action alone will occasionally suffice to produce sufficient pressure on the inner surface of the placenta to stay bleeding; though it requires the head to be entering the os before it can efficiently do this; so that, if we found the os uteri fully dilated, the placenta marginal, and the membranes tense, we might rupture the membranes, and if the head descended we should not expect further bleeding, and the case may be allowed to end naturally. But, practically speaking, these cases are not the most frequent. If the placenta were mainly over the expanded os when the membranes were ruptured, the head, retarded by the bulk of placenta, would not effectively enter, and then it would be our best plan to press the flap of placenta aside and apply forceps, drawing down the head into the os, retaining it there by gently hanging on to the forceps till the pains were sufficient to expel the head, assisting them by gentle traction.

But it is very possible that we may have no forceps, and for one reason or another the head is unable to enter the os, then we are under the necessity, in order to place our patient in safety, to bring the breech to the os by turning. This can be accomplished by either slowly pushing the hand through the os, seizing the leg, and bringing the breech into the os; or by the combined external and internal version, effecting the same result but in a gentler way. Of course, if the breech present originally, all that will be needful will be to bring down the leg, fixing the breech in the os. The hand should retain hold of the leg, so that the weight of the arm gives pressure sufficient to prevent further bleeding. The great object of these manœuvres is to produce pressure enough to check bleeding, and this pressure need not be much.

In both the employment of the forceps and in turning the action is not for instant delivery; as soon as the os is plugged by head or breech the object is accomplished, a little additional traction as the pains come on sufficing for the delivery, which may be left mainly to Nature. Thus we gain time, valuable to our patient, wherein we can sustain her energies while the circulation is recovering its balance. When the os is fully expanded, the engaging firmly of head or breech is followed in an hour or two by uterine action. Supposing the os is not sufficiently expanded to introduce forceps, or to readily turn, then the os uteri can be expanded by the dilating bags, or in event of our not having them, the os could be gently dilated by the fingers introduced one by one. But if the os be so small as that, then I think the best plan would be to proceed by the combined method of version, as the leg and breech being of conical form, it assists dilatation, and, as the os expands, it keeps up a corresponding pressure on the bleeding surface, for it has been constantly found in a large number of cases that if very slight traction is kept up just at first, no further bleeding has recurred.

If with all these states of os uteri, particularly if small, the placenta be attached more or less across, it is of much advantage to separate gently the placenta for a forefinger's length; this very distinctly releases the lower portion of the uterus from the restraint caused by the attachment of the placenta, and this is very noticeable if the margin of the placenta be across the os, because the margin is the part most firmly adherent to the uterus. By this separation the flap of the placenta also somewhat retracts, and is pushed aside as the head or breech descends. If the membranes are perfect, then they need not be ruptured till the act of

version; and when this rupture occurs, a still further easement is felt in respect of the rigidity.

Now, with respect to the detachment of the placenta from around the os, it is necessary to make a few remarks.

1. The act of doing it may be attended with severe and continuing hæmorrhage, particularly in central insertion of the placenta. In two cases which occurred to myself with central insertion, I was alarmed at the large flow, and this was only restrained by penetrating the centre of the placenta, performing bipolar version, and bringing the leg through the os, which was so small that scarcely two fingers could enter.

To discuss the source of this bleeding would, I am afraid, take up too much of the time allotted me, and therefore I would call attention to the practical fact that sometimes in detaching the placenta we have severe bleeding, whilst at other times we may not; indeed, these cases are the more frequent, and it has practically been found that a free, bold detachment of the placenta as far as the fingers can reach has the effect in a large number of cases of checking bleeding for a time, and thus we come to another means of restraining bleeding in placenta prævia. But, inasmuch as by this action we have the placenta partially detached, and as our experience tells us that both in "accidental" and in *post-partum* hæmorrhage there is, with partial detachment, liability to floodings, so when we employ this method as one which will give us time by temporarily restraining bleeding whilst the os uteri is dilating and the patient recovering her powers, yet we must treat it as a measure itself requiring supervision. This my experience bears out. In other words, it is imperative that we should be in close attendance on the patient, ready to act should any bleeding of importance occur, the action indicated being, of course, either to bring the head down by forceps or breech by turning. We must also remember, when we detach the placenta, we cut off the fœtus from its aëration to the same amount; and although it may be said that when it comes through the os about the same amount of the placenta will be made useless by pressure, yet it may be rejoined that the effect of the detachment will generally extend many hours longer than that of the pressure. If the placenta be inserted more or less centrally, these considerations do not enter, for the placenta sooner or later must be detached to an extent probably fatal to the child.

I would venture a suggestion here, in order to lessen the bleeding on detaching the placenta, that the finger should keep close to the uterine surface, rather pressing it from the surface of the placenta than the placenta from the uterus. If this plan does not lessen the loss from the maternal side, it may prevent loss from the fœtal villi, which must occur when we lacerate the placenta.

Now there are a certain class of cases, practically the more numerous, in which there has been severe loss and it is necessary to secure the safety of the patient; but where the os is so small that we cannot put in operation the foregoing plans, so also where, although the os uteri be somewhat expanded, we have at hand neither forceps nor dilating bags, or where, in peeling off the placenta, we are confronted with alarming blood-loss—in these cases the only plan we have at command is version by combined internal and external method, and it is in these cases we see its great advantages. But when this method of version is used it must always be understood that it is not the version itself which is the hæmostatic remedy, but that by it we are enabled to bring the fœtal leg or breech down on the placenta from within, and so are able at an earlier date than otherwise possible to stay the flow. It is possible in some case to dilate the os with fingers, and after some time, and with more or less force, to pass the hand through the os and so reach the leg; but I feel quite sure that anyone who has tried the two plans will, without hesitation, pronounce in favour of version by the newer method; and it is interesting to note that, although very little or no uterine action was observed before turning, yet shortly after the leg has been brought in through the os the pains commence and continue, so that labour is accomplished without requiring much assistance from the attendant, often within a couple of hours.

But in selecting our plans for the safety of the mother, we cannot leave out of consideration the preservation of the child so far as possible; and here I think we shall all agree in choosing, where the state of the os, the position of the placenta, and the condition of the mother permit it, delivery by the head as the most likely to secure its safety, that is to say, with a fully expanded os and placenta marginal. But when the os is only large enough for

two fingers to pass, and the placenta much across the os or central, the time which elapses before labour is over, and the great reduction of its aëration adds so much to its jeopardy, that the extra risk produced by pressure on its funis as the result of turning is scarcely to be taken into calculation. In either case the death-rate is very high. But if for any reason there has been laceration of the placenta, there will also be laceration of the villi, and in consequence an oozing of blood will be going on, serious to the vitality of the child, if it be free or continuing during long hours, whilst we are waiting for the expansion of the os and pressure of the head, so that risk by pressure on funis after turning, is, I think, pretty evenly balanced in the other mode by the loss of its blood. If after gently detaching the placenta just enough to set free the lower portion of expansion, we quickly bring the leg or breech into the os, all loss from the placenta is checked, as it is at the same time from the maternal vessels. In all cases of labour before the end of the seventh month, and where we know the fœtus to be dead of course the question of preserving the life of the fœtus does not arise.

In those cases where the anæmia is so profound that almost the least movement eclipses the pulse, our difficulties are very great, but whatever we do we must do it with extreme gentleness. Our first object is of course to prevent further loss, while we sustain the powers by restoratives till the circulation recovers its balance. If there be no bleeding, we had better wait, but keeping watch at the bedside in case it return. Should it do so, or when the patient has rallied, we may elect to use forceps or combined version according to circumstances. But as detachment of the placenta may be attended by more or less blood loss, I should not advise this method. But these cases are so formidable, that often before we see them, their fate is sealed, and while we are waiting for the rallying, already coagula in the heart have formed and slowly but surely block the current.

RULES.

I would propose, therefore, the following rules, deduced from the above considerations, for your acceptance:—

1. After diagnosis of placenta prævia is made, we proceed as early as possible to terminate pregnancy.
2. When once we have commenced to act we are to remain by our patient.
3. If the os be fully expanded and placenta marginal, we rupture the membranes and wait to see if the head is soon pushed by the pains into the os.
4. If there be any slowness or hesitation in this respect, then we employ forceps or version.
5. If the os be small and placenta more or less over it the placenta is to be carefully detached from round the os; if no further bleeding occur we may elect to wait an hour or two. Should the os not expand, and if dilating bags are at hand, the os may be dilated. If it appear the forceps can be admitted easily, they may be used; but if not, version by combined external and internal method should be employed, and the os plugged by the leg or breech of fœtus; after this is done the case may be left to Nature, with gentle assistance, as in footling and breech cases.
6. If the os be small, and if we have neither forceps nor dilating bags, then combined version should be resorted to, leaving the rest to Nature, gently assisted.
7. If during any of the above manœuvres sharp bleeding should come, it is best to turn by combined method in order to plug by breech.
8. Where the fœtus is dead, or labour occurs before the end of the seventh month, combined external and internal version is the best method, no force following.

To these I may add the following: If, however, we employ a routine method in all cases, it will be found that the version by combined method, no force following, gives a result as good as, if not better, than any.

After-Treatment.—The after-treatment must be conducted on the modern principles; should oozing occur after the expulsion of the placenta, the swabbing of the lower uterine by styptics will be easy; and inasmuch as the outlet of the uterus is liable more especially to be blocked by adherent clots, it will be wise to irrigate the uterus daily with some antiseptic solution, or insert iodoform pessaries in the vagina, particularly if the irrigation cannot be done.

Dr. MURPHY (Sunderland) submitted a table of thirty-eight

cases of placenta prævia, giving brief details of each, which included thirty-two consecutive recoveries; the thirty-third died of septicæmia, and the thirty-eighth was *in articulo mortis* when seen; these two were the only cases that terminated fatally. He urged the danger of permitting pregnancy to continue, and wished to establish a rule "that premature labour should be induced in every case where the placenta presented after the seventh month of pregnancy, and even before then when the bleedings were frequent or serious." He regarded Barnes's bags as the best means of inducing labour, and to fully dilate the cervix, and then generally to perform bipolar version, having at first separated the placenta.—Dr. LOMER (Hamburg) wrote a letter, from which an extract was read by the President to the effect that he (Dr. Lomer) had treated twenty-eight cases of placenta prævia, with one case fatal to the mother. Putting together all the results of German obstetricians, there were 190 cases of placenta prævia treated by Braxton Hicks's method, with but 9 deaths. Dr. Lomer said the rule he recommended was to turn and then wait; to consider the case as being simply one of foot-presentation, in which there was no other reasonable necessity to extract the child than the impatience of the operator. Should hæmorrhage occur in the meantime, then naturally it was right to perform slight traction on the foot in order to make the breech of the child tampon the bleeding parts. This traction ought, however, not to be a "hastened extraction."—Dr. R. BARNES said the treatment must be governed by physiological principles. He must recall attention to the theory that the danger of hæmorrhage depended upon detachment of the placenta growing within the lower zone. This was defined by Barnes's boundary-line, described by him twenty years before German writers discovered it. There was no absolute, constant method of treatment; but the stage and conditions differed, and therefore treatment varied. The first thing was to lessen the bulk of the contents of the uterus, so as to permit of its contraction. 2. To detach placenta from lower zone: this was done by the finger, which, sweeping round, reached exactly as far as the boundary-line; beyond this, the adhering placenta would support the child and give it the best chance of survival. 3. Dilate the cervix: this was best done by Barnes's bags; they dilated gradually, thus minimising risk of septicæmia from bruising or injuring the highly vascular cervix. 4. According to conditions, deliver by forceps or bimanual turning, which here found one of its most valuable applications. The evidence of Dr. Murphy and others was conclusive as to the value of these principles. He would add a word on prevention of placenta prævia. It was apt to recur. What were its causes? The ovum sought growth to healthy endometrium. If the upper part was diseased the ovum would be apt to stretch lower, that is, within the lower zone. Hence one rule, heal endometrium. Dr. Barnes submitted that prophylaxis was an interesting study.—Dr. HARVEY (Calcutta) wished to call attention to two points. One the use of the forceps as a substitute for turning in suitable cases, the other a danger in cases of initial rupture of the membranes, not, so far as he knew, mentioned in English textbooks. It was a curious fact that in the most modern books little or no mention was made of the forceps in connection with placenta prævia. Playfair, even in his last edition, while fully recognising that many cases were unfavourable for turning, had nothing to recommend but delay, while means were taken to restore the patient. Now, in cases where the patient was blanched and exhausted by severe bleeding, and practically in a state of collapse, the mere shock of turning might be fatal. If the forceps could be used they should be used; they caused far less shock than turning, and could often be applied very easily. The other point was the danger of rupturing the membranes early, as routine treatment in every case. This practice was recommended both by Playfair and Barnes, and there was no doubt that in many cases it was absolutely effective and completely stopped the bleeding. In some cases, however, it failed, the bleeding continued, the os was too small to allow of turning, and it was necessary to plug either with Barnes's bags or otherwise. The plug might act perfectly, so far as outward bleeding was concerned, but the blood might accumulate in the uterus, filling up the space previously occupied by the liquor amnii, and seriously endanger the patient. Kuhn and Braun, of Vienna, ridiculed this danger, but it was not imaginary, and he had seen a case in which a mass of clot larger than the placenta was expelled with it. Schroeder considered it so real a danger that he delayed rupturing the membranes till the os was fairly dilated; and the possible danger was, at all events, worth remembering. He thought that it should be generally recognised that no two

cases of placenta prævia were precisely alike, and that no plan of treatment was universally applicable. Every method had its advantages and disadvantages, and they should be prepared to treat each case on its own merits, varying the plan of campaign according to the particular circumstances of the case.—Dr. MORE MADDEN thought that the difficulties of treatment of placenta prævia had been greatly overrated. In his own long experience of obstetric practice, in hospital and otherwise, he had tried nearly every suggested method of dealing with these cases, and after all had come back, as the most effectual and reliable, to the old plan—if the patient was near the completion of the term of gestation—of restraining the hæmorrhage by the tampon, the introduction of which was followed by labour, and then effecting delivery by version.—Dr. MURDOCH CAMERON said that, with respect to the first point in the summary by Dr. Hicks, namely, the diagnosis of placenta prævia, there was very little difficulty, as the complication too surely demonstrated itself by suddenly placing the patient's life in danger. The second point, namely, to wait with the patient, was requisite, whilst the treatment would in great measure depend upon the site of the placenta. In marginal cases the treatment might be met by such measures as Dr. Hicks advocated, namely, plugging, rupture of the membranes, and delivery with forceps. In cases of central insertion the speaker always trusted to combined version, and had seldom had any trouble with the dilatation of the os, as usually in those cases the cervix yielded readily to the passage of the child's body.—Dr. WALTER (Manchester) mentioned that his experience was derived from attendance on 23 cases, 20 having occurred in the maternity department of St. Mary's Hospital, and 3 in private practice. To go into the details of all these cases at the present time would be impossible. He would briefly refer to the treatment adopted: in 1 the mode of delivering was by the forceps, in 3 by the natural powers, and in 19 by version. The method of version was the "bimanual method," and he was glad of this opportunity of his expressing his obligation to Dr. Braxton Hicks for the valuable assistance derived from his papers on this subject. Dr. Walter also drew attention to the different mortality that existed according to the class of patients operated upon. In private practice or in hospitals the mortality would always be less than in maternity districts where the patients' houses were far distant from the hospital, and where, consequently, much valuable time was lost before treatment could be adopted. Dr. Walter suggested that it might be advisable in cases of extreme anæmia, where Barnes's bags were not at hand, or even in some cases before the insertion of Barnes's bag, to swab the interior of the cervix from where the placenta had been separated with cotton-wool soaked in vinegar, adopting then whatever treatment the case seemed to require.—Dr. BERRY HART defined (1) the normal site of the placenta. He considered the placenta as normally situated when it lay above the lower uterine segment; (2) placenta prævia. The placenta was prævia when attached in part over the lower uterine segment; (3) accidental hæmorrhage. This was due to pathological separation of the placenta when in its normal site. Dr. Berry Hart showed specimens of placenta prævia and partial abortion.—Dr. BRAXTON HICKS, in reply, thanked the meeting for responding so well to the invitation. In reply to Dr. Harvey, he would point out how easy it was to extemporise a dilating plug from materials always at hand. In a case which occurred to him in consultation, though the hæmorrhage was very severe, and the os would only admit a catheter, he was able to extemporise a plug which effectually dilated, so that the finger could be passed; and whenever they got so far, the placenta, being separated round the os, expanded, and soon would permit the bimanual method of turning to be accomplished. In reply to Dr. Murphy, he especially, in opening the discussion, had endeavoured to avoid talking of anybody's plan, being anxious to bring out the principles on which these cases should be conducted. He had no plan except such as was indicated in his introduction. With regard to Dr. More Madden's advocacy of the plug, he must say that the distress it caused, extending over twenty-four hours, was very much greater than that of following the indications he had pointed out.

THE Brazilian Government has commissioned Dr. José Lourenço de Magalhães to investigate the subject of the causation and prevalence of *morphea* (leprosy) in the province of São Paulo. Dr. de Magalhães, who has devoted many years of his life to the study of the disease, is the author of a work on leprosy in Brazil (*A Morphea no Brazil*).