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On the Management of the Third Stage of Labour.

Of the three stages into which parturition is divided, and which require the more or less constant attendance of the accoucheur, perhaps the third and last demands his careful attention not less than the others. If it be that no assistance is required, it is none the less his duty, on account of the dangers that may quickly arise, to minutely watch the whole process, so as to at once detect any deviation from the normal, until such time as labour is ended by the completion of the stage and the patient is in a satisfactory state.

It is foreign to the object of this paper to enter into any description of the development of the placenta, of its structure, or of its functions. Its attachment to, and relations with, the uterus ought to be impressed on the memory so that one may understand clearly how the dangers of the stage may arise, how they may be avoided, and how rectified when present.

When gestation is completed, we have an enormously developed uterus most richly supplied with blood-vessels for its own nourishment, and more especially

for the wants of the fetus. In the uterus, firmly attached to its walls, is the placenta, composed chiefly of blood-vessels and blood-spaces, and averaging in weight, from 18 to 200z. In it, and throughout it, a most extensive circulation is carried on, to and from the fetus on the one hand, by the vessels of the placentæ; and on the other, to the maternal circulation through the enlarged uterine arteries & veins. The placental vessels are described, by competent authorities, as dividing and subdividing into branches, the terminals being looped and projecting into blood spaces in the maternal part of the placenta, some even reaching the walls of the uterus itself; and that there, the purifying changes are effected, without any direct communication. The main points are, that the connection between the two structures is almost altogether vascular, arteries and veins going to and from the placenta and a few number of vessels, from the fetus, extending to the uterus itself; thus the blood circulates with considerable force, as is demonstrated by the pulsation of the cord; that on removal of the placenta there must be an extensive rupture of the blood vessels & channels;

and that, no other change taking place, the bleeding cannot fail to be alarming and fatal to the mother in a very short time. Nature, however, insures the safety of the woman.

During the course of the labour, the regular and recurring contractions, gradually lessen the size of the womb as the expulsion of the child progresses, so that, when all the stages are completed, and the uterus is in a proper state, it is somewhat similar in size to a child's head at term.

Now, this gradual decrease in the size of the uterus must also slowly lessen the area of its placental attachment, and as the placenta itself has no power of contracting, it is quite apparent that the union between the two must become impaired, and when the uterus has diminished to a certain degree, the connection becomes no longer practicable, whatever part the formation of clots may play in the process. It is wonderful, and also fortunate, how nicely nature has adjusted matters in this regard, and it is to her we are indebted for the separation, almost without exception, taking place only after the expulsion of the child; or, in other words, the uterus requires to con-

tract to such a degree before the placenta separates from it, that the second stage must be completed before that point is reached.

The same uterine activity that insures this, at the same time by the pressure of the muscular fibres, and, no doubt, also by lessening the size of the placental attachment, closes the ruptured blood channels and so effectually prevents bleeding, that usually only a few ounces of blood are lost at each confinement.

To the contractions of the uterus, therefore, in the third stage of labour, are we indebted not only for the separation of the placenta, its expulsion, and the prevention of haemorrhage at the time, but also for the maintenance of the womb at such a size, that bleeding is prevented. Upon that alone then, may the safety of the woman be truly said to depend, both during labour and for days after its completion.

We thus see that in the management of the third stage of parturition, which consists in the expulsion of the placenta, we require to devote our attention fully to the uterus, be-

cause with proper contraction alone, can we look for a satisfactory termination of the case and the safety of our patient. —

It is interesting to observe the difficulties met with, generations ago, by accouchers, in the management of this stage, when nature failed to complete the process; and to note the infrequent changes and the adoption of quite opposite principles of treatment from time to time. From Dr. Remslothan's "Principles & Practice of Obstetrics" the following historical facts are very shortly taken; —

Aetius was the first to advise the introduction of the hand into the uterus in case of retained placenta. Faré recommended the immediate removal of the placenta; first, by pulling at the fundus, and, failing that, the introduction of the hand. This mode was practised for many years, among others, by Chapman and then, slightly modified, by Smellie. Disastrous results followed not infrequently, originating great opposition, started by Bruggh and taken up by Dr. Hinman in England, leading in it being abandoned. In its place was adopted a

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system of non-interference in every case, followed after a time, by bad results and a change to something new &c.

In leaving this account, which there is no space to pursue further, of the perplexities into which many a moment such were cast by the difficulties they had to encounter, the method practised by Dr. Ramsbotham himself may be stated or follows; - Under ordinary circumstances, wait till the placenta is completely in the vagina, when it is removed by pulling on the cord: if, at the end of one, or one & a half hours, it still remains in utero, the hand requires to be passed, and if, at any time, profuse haemorrhage takes place, it is extracted in the same way.

This evidently is just a modification of Dr. Hunter's mode of procedure which he practised after finding the "expectant treatment" a failure, the only difference being, that Hunter waited four hours usually, before taking any active steps in the matter.

On graduating, I was under the impression

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that pulling at the fundi and passing the hand into the uterus were quite exceptional methods, but on becoming acquainted with those in actual practice, and on the perusal of cases reported occasionally in the Medical Journals, this was found to be a mistake. It is perfectly true that the young generation of economists are less fond of these methods than those in practice for a number of years, and especially than those of the old school. Still, one meets with young practitioners now and then, chiefly in England, who rely partially or completely on these two methods, for the completion of the third stage. A comparison of this mode of treatment with that of Ransbotham, with that Hunter ultimately adopted, and with that of Park, will show it to be essentially the same, the only difference consisting in the earlier recourse to active measures by those of later date.

On considering the management practised at different times, its frequent change, and not infrequent painful results, one cannot avoid having a suspicion that too

much stress was put upon the removal of the placenta, as the means by which the case would be brought to a happy termination. No doubt, the fact that after the removal of the secondines, there is less frequently bleeding than before that is effected, would go some way to justify that opinion. Again, the less perfect physiological knowledge of parturition which obtained at that time, favours the view that the important part which the uterine contractions play in the delivery of the placenta, and in the prevention of bleeding, was not recognised. On any other supposition it is difficult to understand how the treatment could be so disastrous, unless we believe that the anxiety to remove the placenta induced it to be hurriedly extracted without any regard to the state of the uterus at the time.— On the other hand, the teaching of to-day which is gradually replacing that introduced by Rose, looks rather to the activity of the uterus as the only means

by which the process can be properly completed. The placenta requires to be expelled certainly, but, understanding the manner in which nature provides for this by contractions, and also of the prevention of haemorrhage by the same means, we assist her in these contractions when required, feeling sure that with a uterus actively diminished to a certain degree, the placenta must be expelled and no harm can befall our patient.

The manner in which this assistance is given is called Squeezing, and known also as "Lædés" method. Who was the honour of first introducing it I know not, and am equally ignorant whether or not any changes have taken place in it, since it was brought before the profession, all endeavour to obtain any literature on the subject having proved unsuccessful. My acquaintance with it was obtained while a student, chiefly from the Lectures on Midwifery, when it was clearly described and special attention given to it. About the same time,

while taking my obstetric cases at the Maternity, a case of retained placenta was met with, which caused no little anxiety to a fellow student and myself. The assistance of one of the staff of the Institution was obtained, and we could not but admire the success gained by hæmorrhage. This was the first and last time I have ever seen any one perform it, and its advantages were so evident that I resolved to practise it on every possible opportunity. Few cases of that description, however, were met with in the first year after graduating and the second was still less fortunate in that respect, for my time then was fully devoted to medical and surgical cases in an Infirmary and not a single midwifery case was met with. The two following years were more satisfactory in this respect, 126 cases falling to my lot, and it is from these that material is obtained for this paper.

Though the cases are not so numerous as one would wish, yet, not a few of them have proved interesting and well suited for testing the efficacy of the methods adopted. From the fact, that the majority

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of them occurred some miles from my residence, and from the want of facilities for communication, and other causes, it has over and over again ^{happened}, that the child was born before my arrival and the placenta retained for longer or shorter periods. In this way have arisen opportunities which do not so often occur in town practice, for the management of this stage, when, beyond doubt, nature unassisted, had failed to complete the process in the usual time. Further an unusually large percentage of the cases were delivered before I reached the patient, in all 26 cases, and it is remarkable that in only 6 of these was the third stage completed naturally. In the remaining 20 cases the placenta was retained for periods varying from half-an-hour to three hours.

I now propose considering the subject from a practical point of view, stating the difficulties met with by the practitioners, and how they can best be overcome. No new method has been discovered, indeed none looked for, but

special attention has been given to those already in use, the best selected and successfully practised.

It seems advisable to make the following arrangement with regard to the order in which the following remarks occur; so that confusion may be avoided, viz; under the head of each of the different methods of management, shall be stated the opinions held regarding it, the reasons for such opinions, and any cases illustrating the test will be given.

These methods have already been mentioned. They are (1.) Pulling at the Funic; (2.) Expression; and (3.) The passing of the hand into the Uterus.

Before coming to these, however, it will be convenient to take some notice of the expulsion of the placenta by the natural efforts alone, unassisted by the accoucheur, and which may be termed Spontaneous Expulsion.

The relation uterine contractions bear to the birth of the placenta has already been pointed out, and that, given a uterus contracted to a certain degree, the placenta can-

not remain in its interior.

In an ordinary labour, after the completion of the second stage, follows a rest of 15 or 20 minutes, or more, before activity returns and the last stage is completed. The edge of the placenta, or, so far as my observations go, presents first on leaving the uterus and the vulva. Not infrequently, however, the foetal surface, having the insertion of the cord in a more or less prominent position, comes in advance. That it does so when there is no interference with the funis I have seen and can vouch for. I regret that no mention of the relative frequency of these, appears in my note-book, so that no details can be given.

That nature, if left to herself, will complete the labour without injury to the mother in the majority of cases, is a fact admitted by all writers on the subject. But the time occupied by her in doing so gives rise to some difference of opinion, some fixing it at from 10 to 20 minutes and others extending it to half-an-hour or more. The practice of giving assistance to the uterus in

the third stage whenever a pain comes on, which I invariably follow, precludes the case from being of any utility with regard to this point, but the time that very often elapses before a pain does appear spontaneously, raises a doubt with regard to the first of these statements, in so far as it applies to the cases I have seen. This is further confirmed by the number of the cases already given, where the child was delivered before my arrival and where the secondaries, after the lapse of at least half-an-hour, were still retained. The large number of these, viz; 20 out of 96, is perhaps just exceptional, nevertheless, they tend to show that a longer period than 10 to 20 minutes, was necessary for spontaneous depulsion in those cases now under consideration.

On the other hand, cases are occasionally met with, in which there is unusual rapidity without interference of any kind. Two such were met with. The first, no 88 in my notebook, was quite natural in all other respects. When first seen, the pains had become less frequent and much less

powerful during the last hour. Every thing was in good order for delivery, except that the bag of membranes ~~was~~ ^{was} low down in the vagina and intact. This was at once ruptured, and very soon afterwards, the uterus became much more active. The last contraction of the second stage was very powerful, so much so, that it was deemed advisable to restrain the voluntary efforts of the woman as much as possible, notwithstanding which, the placenta followed the buttocks of the child so closely, that they were both projected into the bed almost at the same moment.

In the second case, No. 124, the contractions which completed the second stage continued, and in a few seconds expelled the placenta before subsiding. In this, as in the other, the pains were very powerful and the membranes became fast after the body of the placenta had passed the recta. In both, not only was no assistance given but the women were restrained from helping themselves and nothing allowed to touch the abdomen. There was no more than

the usual haemorrhage. It may be added that both women are under 30 years of age and have had their children, the first four, the second six, at short intervals.

As already stated, the blood lost at each confinement is as a rule quite trifling. One case differed from the normal in this respect, in so much as there was no bleeding at all. It may be given here and also made to serve as an example of the way in which the management of the third stage is usually conducted.

Mrs. G. A. 24th, was confined of her second child on Aug^t. 14th 1886. When first seen about two months before her delivery, she was the subject of well marked *Asthma Pulmonalis*. All the symptoms were quite distinct and there were signs of corities in both apices. As the time for her confinement approached, it was quite apparent that her days were numbered and the coming event was looked forward to, by her friends, with no little anxiety and apprehension. At last I was summoned, three weeks before the

full time was completed, and not a moment was lost in getting to her bed-side. The child, small and delicate, was born with little effort on the part of the mother and the most careful attention was directed to the afterbirth with the view of preventing any unnecessary loss of blood. The hand, placed over the fundus of the uterus just when the second stage was being completed, grasped it quickly but firmly, and with the help of a very feeble pressure directed in the axis of the pelvis, insured firm contraction. This was maintained by gentle support and in 15 minutes, a pain appearing, slight expression was employed and the placenta, closely followed by the membranes, was at once expelled without the least difficulty and without annoying the patient in the least. No blood escaped.

A careful examination of the placenta showed it to be much smaller than usual and also much paler, its upper surface having a raw, dryish ap-

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pearance and quite bloodless. The bedclothes were also free from blood. Any bleeding that occurred was so slight that none appeared externally, and as there was no necessity for a vaginal examination after the last stage was completed, there was no evidence of it at all, nor were there any indications of any clots being retained.

Perhaps I may be excused for giving in a sentence, the termination of this case, seeing it is the only fatal one I have met with.

No uterine symptoms arising, everything went on favourably so far as her accouchement was concerned. On the fifth day, however, on spitting, she for the first time, detected blood in her handkerchief, and called the attention of the nurse to it. The sentence was abruptly stopped by a sudden rush of blood into the mouth, she attempted to sit up in bed the more readily to eject it, but fell backwards in an unconscious state, the blood flowing from her mouth, and in about a minute she was dead. -

Whatever part in the separation of the placenta

the formation of blood clots may play, it is quite evident from this case, that their presence is not absolutely necessary. It may be objected to this, that the clots formed and passed off, the separation were retained. All I can say is, that clots, for such a purpose must, at least, be of a medium size, formed by more or less haemorrhage and the escape of some of the blood in a fluid state. Were any ~~all~~ retained they caused no after pains, no increase in the discharge, no portion of them was discharged and no uterine symptoms were produced within four days after the labour, all of which negative the supposition that any were present.

We will now proceed to the consideration of the different methods by which the stage may be completed, when from some cause or other, nature has failed to do so. Regarding these causes nothing will be said at present as those met with will be mentioned in connection with the cases where they occurred.

" Pulling at the Funnis.

Induced has

already been adduced from various sources, that this method has been long practised, and, from personal knowledge, that it is still employed to a considerable extent. In Obstetric works, almost without exception, it holds a prominent position; and in all, without exception, great caution in its employment is forcibly recommended. These cautions show how generally its dangers are recognised and the necessity there is for care. In the British Medical Journal of April 17th 1886., a good illustration of the chief evil arising from this practice occurs, and may here be given very shortly. It is reported by the medical attendant under the heading of "Inversion of the Uterus". The patient was a middle aged multipara and the child was born naturally. "I placed my hand," says the medical attendant, "over the uterus and felt it contracting, "but as the placenta did not come and the "patient informed me that once before the afterbirth had grown to her side and the Dr. "had been obliged to remove it, I asked the "nurse to place her hand over the ab- "domen, intending myself to introduce

"the hand and remove it. On introducing
"two fingers however, into the vagina, I found
"a good part of the placenta already there and
"so used traction on the cord which readily
"brought away not only the after birth but
"also a large body which proved to be the inverted
"ed uterus. The membranes seemed attach-
"ed to its surface and these I pulled off &c.

It is to be observed, that in this case the placenta
was felt to be in the vagina while it was absent
yet partially adherent to the uterus, and that
traction on the cord caused inversion.
Some other cases of a like nature, publicly report-
ed, could be cited but for the sake of brevity
they are passed over.

About a year ago, a gentleman of my acquaintance
who has practised now for 14 years, told me
that he sometimes resorted to this method
and was satisfied with the results. Never how-
ever tried such a proceeding I resolved to
do so on the first opportunity. Whether from
want of experience or confidence in the
maneuver, or from the great uncertainty
felt with regard to what was really taking

place, my dislike was so great that it was abandoned and the required assistance supplied by depression. Were I compelled to employ it for want of a better method, Dr Rambootham's instructions would be carefully followed viz:- "Never pull on the cord when the placenta is still in utero. Do so only when all the afterbirth is felt to be in the vagina and the finger ^{can be} passed round it". So practised, the danger of doing harm would be greatly lessened, but, I presume there would be some trouble in ascertaining by means of the finger whether it was completely in the vagina. Besides, the discomfort, anxiety and alarm to the patient, caused by an examination under such circumstances, ought to be avoided when there is no immediate danger. That it can be avoided and the case completed as efficiently and with less trouble to both the patient and the accoucheur, will be shown before the completion of this paper. Although when carefully performed it may bring about what is desired without anything unusual taking place, yet, in all cases, there is so much uncertainty whether the placenta is completely separated or not,

and so much danger to the woman when it is not so separated, that it is a proceeding to which, in most cases, some considerable risk is attached. The conclusions their considerations have forced me to come to are; that pulling on the pains, or a means of delivering the placenta, is dangerous, uncertain and unnecessary, and ought therefore to be abandoned altogether.

(2) Expression on "Fried's" Method.

The management of the last stage of labour which has given rise to so much variety of opinion, and so much cause for discussion, appears, in this method, to have reached the highest point of perfection. Unlike any other procedure advanced for the same purpose, it is not employed with the view of replacing the natural efforts-making nature stand aside, as it were—but rather to ^{rouse} encourage her to increased activity, at a time when she has become dilatory, or it may be, when weakened by

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a too long prolongation of her powers, to assist her with the force she has required to spend in an unusual way.

This assistance must be given, as nearly as possible, in the same manner that nature would employ it, were it at her disposal. Therefore, bearing in mind the natural action of the uterus, the hand is placed over the fundus uteri and the fingers separated so as to be able to exert as much of its substance. If there be contractions present, the hand firmly grasps the uterus, and bearing in mind the position of the axis of the womb, pressure is directed in that direction. The woman, lying in the usual obstetric position and the accouchement ^{being} on her right side, this is downwards and slightly towards himself. Usually only very slight pressure is required and it is advisable to be continually and gradually increase the force, according to the amount of the opposition met with. At the same time, attention is directed to the condition of

the uterus, and whenever uterine action ceases, all expression is at once stopped, the womb being quickly supported if need be, until a pain again appears, when it is resumed. Of remembering what has already been said with regard to the natural pains, it will be quite evident, that expression of the placenta, when the womb is not contracting, may readily lead to haemorrhage, if it were successful; but, the chances are in favour of some injury to the uterus being inflicted before that is accomplished. For, the uterine fibres, being relaxed, very little force indeed might be quite sufficient to depress a portion of them, thus producing inversion, slight at first, but, by the action of contractions, especially if expression be continued, becoming more or less complete. By waiting for a contraction, moreover, we are not only imitating nature, but we also get the assistance of the natural force, which, combined with expression, will quickly bring the case to a happy conclusion.

In those cases where no pains appear after the lapse of some time, and it is thought

advisable to complete the labour, this can, in the great majority of cases, be accomplished without difficulty. Abdominal friction over the fundus, and then, if necessary, gentle kneading of the uterus itself, will cause natural action in a few minutes, and on that being obtained, expression in the usual way is all that is required.

There is usually no difficulty, on account of the relaxed state of the abdominal walls, in getting the hand into a satisfactory position, but sometimes in primipara, or where there is an excessive amount of adipose tissue, it takes a little maneuvering. In these cases, if the edge of the hand be gradually sunk into the abdominal walls in the way directed by gynaecologists when feeling for the fundus in slightly enlarged or normal cases, this slight difficulty will be readily overcome.

In any case where a quick satisfactory grasp of the uterus cannot be obtained, expression ought not to be employed.

It is quite possible that some portion of the bowel may be accidentally grasped along with the fundus. If the patient be quite conscious, she will not fail to make it known that some pain more than what should be, is present, but unless the abdominal muscles are unusually tense, the accoucheur may detect it himself. I don't think there is any great probability of harm being done in this way, yet one ought to remember that such a thing might happen.

Regarding the force that may be exercised in expression, this already stated that as a rule, very little is sufficient. Sometimes, however, it requires to be very considerable, but as it is, at first, impossible to say how much will be needed, it is always better to begin with little and in each case to employ no more than what that particular case requires. On one occasion, by using more force than the case demanded, just when the placenta was being delivered, the fundus escaped from my grasp towards the pelvis. At first I thought

that some injury was done, but seeing that further manipulation through the abdominal walls was more likely to make the injury worse, the hand was removed. There were no symptoms of anything being wrong and in a very short time the fundus reappeared all right.

In another case, that will be fully given afterwards, where expression failed, slight force was gradually increased till my strength was taxed to the utmost, without in any way harassing the patient or prejudicing the case in the least.

If the uterus be properly grasped and expression employed only during contraction in the way described, there is little or no danger of doing any harm. I never knew of any injury being done to the patient from this practice.

Regarding the time when it is best to put expression off, there is slight room for a difference of opinion. Suppose, for instance the child is separated and the uterus is in a satisfactory

state of contraction, firm, and of proper size. In the further management of the case, there are two courses open for one to follow; -
 (1) without further delay you may, by traction over the abdomen, or other means, bring on active contractions and then express;
 or, (2) you may wait 15 or 20 minutes for the contraction to appear naturally and then employ expression.

I have practised both of these ways and found them quite sufficient for the purpose, viz., expulsion of the placenta; and though I never saw any permanent harm done by either, yet, not infrequently by the former proceeding, little accidents would happen and the completion of the stage be prolonged more than was necessary. What very often took place was, that after the expulsion of the body of the placenta, which always came away without much difficulty, the membranes became fast. Sometimes, these being twisted into a rope in the way usually recommended, a gentle pull was sufficient to release them, the hand at the same time

being removed from the abdomen and a little time allowed to elapse, so that the womb might have every facility for relaxing a little. Occasionally this was not sufficient and two fingers had to be passed along the twisted membranes into the vagina, and gentle traction made back-wards towards the hollow of the sacrum or in the axis of the uterus. Even this occasionally failed on the first attempt, and after waiting a few minutes, had to be repeated before being successful.

This, no doubt, was a slight disadvantage and in cases of urgency from haemorrhage, or any other cause, would be disregarded. Nevertheless, in every case the necessity for so acting should, if possible, be avoided.

And that for several reasons. For one thing there is some danger of the membranes being torn and part of them, left behind, might readily give rise to successive after-pains, or, decomposing, be a source of septic poisoning. On the other hand, were the uterus to keep them, which

probably would be the case, it is conceivable that their presence in the discharge might give rise to some uneasiness on the part of the patient, or of her friends, and perhaps even blame might fall on the head of the research-er. Again, when the greater portion of the secundines is expelled, any further interference with the vagina should be avoided, if possible, as it very frequently causes unnecessary alarm, besides being disagreeable to the patients, and in better class practice where one may expect to meet with a higher degree of sensibility, this is all the more reprehensible.

A good few cases could be given as examples of this retention of the membranes after the expulsion of the body of the placenta. Two only will be given, in which secondary, and more serious, results followed.

Case No. 20. Mrs. S., age 33, nullip., a strong and healthy woman, was delivered on March the 9th, 1886, of a male child.

The second stage ended naturally.

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The placenta was expressed immediately after the separation of the child without any unusual difficulty, but the membranes became fast when the body of the placenta appeared externally. They were torn on extraction, but an examination seemed to indicate that they were chiefly or altogether removed. There was very slight haemorrhage.

On Friday the 12th of March, she was seen in the forenoon and everything then was quite satisfactory.

Saturday 13th. I was called out at 2 a.m. to see this patient, and found that she had had a well-marked rigor between 11 and 12 p.m. She complained chiefly of pains across the lower part of the abdomen, especially on the left side.

The face was much flushed and the skin very hot and dry. The pulse was 130 and the breathing 30 per minute. The temperature appeared to be very high but a slight accident interfered with its being taken accurately. The discharge was profuse and offensive. The bowels were quite

regular. At 11 a.m. of the same day she was again seen. The temp. was then 105°F . her condition being much the same as above given, except that she now complained of severe headache, chiefly frontal, and the breasts were much less full. The discharge also was less in quantity and if anything more offensive.

June. Salph. Rx was given and gr. of solid opium ordered every three hours. The vagina, and then the uterus itself, were washed with a solution of Pot. permangan.

"Sunday the 14th. She has no pains in the abdomen or head today; the discharge, though still slightly fetid, is more profuse, and the breasts not less in size since yesterday. The temp. is 103.6°F . and the pulse 104 per min.. The bowels were moved once. The antiseptic solution was again used on the floor and the treatment continued.

It is unnecessary to repeat the daily report taken at the time. The pains did not return and the temperature decreased daily, being 102.8°F . on the 15th; 101°F . on the 17th; and 98°F . on the 19th; her condition improving

in every respect, in the same satisfactory manner. During the three days following the 19th, she continued well.

On the 23rd of March the following note was taken. "She felt rather uneasy yesterday, and towards evening had a rigor and some abdominal pain. The bowels were three moved today, the stools being fluid and offensive. She twice vomited a little. Had a restless night but no delirium. Temp. 104° F., P. 130,脉搏^m: 25. There is no abdominal tenderness anywhere on pressure, but slight tympanicity is present. She also complains of pretty severe headache." (The child at the first attack was removed from the breasts which were empty before this date.) "On inquiries being made, it appears that no alteration has been made in the fluid diet ordered, but, the nurse who, since the temperature became normal, has had the syringing of the vagina to do daily, neglected to do so and the discharge stopped yesterday. Examination for vaginum shows the

ports to be unusually hot, but now less tender, even the cervix being free from pain. The os admits the finger readily.

The vagina was syringed (by self), a high coloured solution of permanganate of potas. being used. The return fluid was carefully watched and no alteration in its colour detected. The vaginal-tube was then gently passed well into the uterus which was very easily washed. At first, the return flow was markedly discoloured and offensive, but after the injection of a few ounces it became quite clear.

On the following day, the 24th, is noted; — "She passed a good night, slept several hours and today feels all right. T. 101.4° F. and pulse 96. The discharge is slight and quite free from smell".

On the 25th the temp. was 99° F. and normal on the 26th. It continued so until the 30th of March when it registered 104.4° F. and when somewhat similar symptoms or those already described, were present. The same treatment was resorted to and

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on the 31st the temp. was 100.2° F and the following day 94.8° F.

This unnecessary to contain this report further than to say, that in a few weeks she was restored to perfect health.

Although this is the only case of the kind that has been met with, I think there is little room to doubt that the starting point was the retention of some portion of the secondaries. The body of the placenta being expelled in such a condition that there was no suspicion of any part of it having been left behind, and the tearing of the membranes, point to the conclusion that some portion of the latter remained in utero, decomposed there, and being absorbed, gave rise to the symptoms which were present in the case. The absence of gastro-intestinal symptoms at the beginning, and for sometime after the onset, of the illness, besides the want of others, precludes it from being grouped under the head of the Gastro-Intestinal form of Puerperal Fever, although during the second febrile attack there were

some points of resemblance to the latter affection. But the results of the treatment adopted, more than anything else perhaps, confirm our opinion of the case. Had the fever been due to anything else than what is stated, the antisепtic measures directed towards the uterus itself, where the real origin of the mischief was believed to be situated, would have had very little, if any, beneficial effect. That the effect was otherwise, the course of the case proves, and does so almost beyond the possibility of a doubt. In a few days we have the patient free from fever and apparently quite well, but chiefly through the negligence of the nurse, she is again plunged into a state of high fever and has returned of all the symptoms that had only just subsided; and lastly, we have a similar mode of treatment producing similar good effects in a shorter space of time.

It was frequently conjectured what the cause of this repetition of the membranes could be. In the slighter forms, where after

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a little the twisted rope could be removed by gentle traction applied extraneously, no doubt their close contact with the curved passage would be the explanation, especially when the membranes were ruptured at an early stage of the labour. For it can be readily understood how they, being partly in the uterus and partly in the vagina, spread out so they are and in close contact with the wall of the passage. I will become packed up and slightly adherent to the canal when it diminishes in calibre.

This may explain what really takes place when slight traction is required to remove them, but in those other instances where they are held as in a vice, and where traction backwards in the axis of the uterus at first fails to release them there must be another explanation.

I was, at first, inclined to think that some fold of the membranes got overtaken, as it were, and caught by the contracting uterus, and this perhaps may sometimes be the case, though no example

has come under observation.

There is another case, every efficient explanation, which I accidentally met with on one occasion. This was (case no. 74 of my notebook) that of a fairly healthy, but by no means robust, woman, aged 27, confined of her second child. The two first stages of the labour were quite natural in every respect. Very shortly after the child was separated, friction &c over the fundus brought on contraction and the placenta was readily expressed as usual. Unfortunately, partly on account of unusual friability of the membranes, they were torn off close up to their attachment to the body of the placenta, as the latter escaped from the vulva. An unsuccessful attempt was made to save them, and when the body of the placenta was born, the membranes remained attached to it merely at one point, and there, only to the extent of an inch. On endeavouring to rotake the placenta carefully, the separation became complete, leaving about

two inches of the membranes hanging from the vagina, the rest being retained. This portion was rotated a few times, but before any traction was made upon it, it broke off a little way up the vaginal cavity, the greater portion being still left behind. On the passage of two fingers, the part in the vagina could not be distinguished from the walls of that cavity, and respecting to come across it near the neck of the uterus, the fingers were advanced. Almost immediately they encountered a stricture situated, as well as could be ascertained from the condition of the parts, about the level of the internal os. By this stricture the membranes were firmly held, and could be felt distinctly, felt passing up to it. The point of the forefinger was brought to bear on the part where the membranes passed through the stricture, and gently, but firmly and slowly, pressed against it. At first the canal was almost completely closed by the irregular contraction, the opening being somewhat

as not to admit the passage of the point of the finger. It gradually yielded, however, the finger was in a short time passed through it and very shortly afterward it altogether disappeared like suddenly. The membranes likewise disappeared as quickly, and the two fingers failed to distinguish them from the walls of the canal. After a vain endeavour to pick them up, a plan was conceived and at once acted on. The two fingers were partially withdrawn, separated as widely as possible, and again advanced to their utmost, at once closed, and part of the membranes was caught between them. This portion was carefully withdrawn and with its aqueduct, the remainder was quickly removed. The haemorrhage was slightly in excess of the usual amount but not sufficient to cause anxiety. Convalescence was rapid and un-interrupted.

It was strange that I never thought of irregular contraction as a cause of this condition, before observing it in this case. That taking

place so low down in the uterus was overlooked, and the mistake made, of looking on irregular contraction and "loss contraction" as synonymous.

On considering this case carefully, it occurred to me that expression, applied too soon after the completion of the second stage, was here mainly, if not altogether, to blame for the irregular contraction.

It is evident that if it had been due to uterine action alone, it would have taken place just after the second stage was completed when that action was most powerful. But this did not occur, otherwise the placenta would have been retained in the upper segment of the uterus, unless it had been expelled into the vagina by the same pain that had delivered the child, quite an unusual thing to take place especially without any indications of excessive action being present. I am quite convinced that the expulsive power of expression, in this case expelled the placenta into the vagina, and as it did so

the forcible contractions of the uterus following so closely on those of the delivery of the child, irritated excessively the circumvaginal fibres at the lower part of the uterus and made them contract spasmodically.

Taking into consideration the inconveniences that thus arise when expression is employed immediately after the completion of the second stage of labour, it was thought advisable to make an alteration in the management of the third stage with respect to the time when expression should be resorted to. In the majority of cases, when nothing is done to interfere with nature, an interval of uterine rest follows the birth of the child. In future cases it was decided to give the post partum short rest of 15 or 20 minutes, provided the womb remained in a satisfactory state of permanent contraction. With that exception the management was just the same as before. Slight pressure was employed at the end of the pain which completed the birth of the child.

and the woman told to give warning when the pains reappeared. In so minute, if there were no uterine contractions, fictitious induced them, and the placenta was then expressed. As a rule, contractions commenced naturally before the expiry of that time, and slight depression was all that was required for the satisfactory completion of the labour. While thus waiting, the fundus is now and then felt by the hand, to satisfy us that it maintains its proper size, but no vaginal examination is made, in fact very rarely is this required during this stage.

By this mode of management it is exceptional for any difficulty with the secondaries to arise, the membranes usually folding out along with the body of the placenta, and if they are caught, this but slightly and they can be removed easily in the usual way by gentle external traction. Since following this method, every few cases have been met with, in which some slight difficulty in the removal of the mem-

has occurred, but that is rare, and in no case have any bad symptoms followed, such as happened in case 20, already given.

So far, expression employed in normal labours only has been considered and it is now necessary to give examples of some cases in which the third stage deviates more or less from the natural. In these, expression is modified slightly to suit the exigencies of the case. For example, in haemorrhage following the delivery of the child, no time must be lost, the uterus being at once manipulated by the hand so as to cause contraction, and if after that, the bleeding continue, the placenta must be expressed without delay and no anxiety felt regarding any slight difficulty that may arise with the membranes, after the body of the placenta is expelled.

Occasionally cases are met with, in which one is induced to believe that partial separation, or even slight adhesion,

of the placenta, is present. Of course it may be that it is the former condition only, but how are we, without passing the hand in the uterus, to distinguish the one from the other with anything like certainty? No doubt, if the abnormal adhesion be extensive, depression will fail need on passing the hand the exact state of matters will be readily ascertained. But when depression succeeds after some difficulty and an examination of the placenta shows nothing unusual, should we be certain that adhesion was not the cause of the difficulty?

Case No. 13, is perhaps worth giving in this connection. It is as follows: —
Wm. A. 33, Multipara, is constitutionally rather delicate. On Jan'y. 18th. 1886. she was confined, the child being born without delay or difficulty of any kind. Afterwards there were no pains and the cord continued to pulsate for minutes. The uterus, a little looser than usual, was fairly firm. The cord was carefully watched,

and on the expiry of 30 minutes the fetus was found to be pulseless and distended with blood. Its ligature was cut and after ounces of dark coloured blood allowed to escape. Before this, a few slight pains were felt and there was slight haemorrhage. Abdominal frictions induced more powerful contraction, and the placenta, in a short time, was expelled by firm depression. The membranes became soft & were recovered intact without difficulty. The third stage lasted altogether 30 minutes. Haemorrhage was pretty profuse when depression was being employed but that once stopped when the placenta was expelled. She had a rapid and good recovery.

This patient, on my arrival, was over-anxious respecting the after birth, and told me that it was retained after two lost confinements, - "rowing to her side" as she expressed it, and that on the last occasion the medical attendant passed his hand and

removed it in that way. She appears to have flooded considerably on both occasions.

In this case, the prolonged pulsation and fulness of the cord; the bleeding; and the history of something of a similar nature having before occurred, all point to partial separation, or slight adhesion, of the placenta to the uterus.

In severe and prolonged labours, where we may expect the uterus to be fatigued more than usual, and to find more or less uterine inertia during the last stage, it is a good plan to prolong the period of rest, if nothing contraindicates it.

In this way, when expression is employed, there are fewer risks of haemorrhage when the placenta is expressed than would be the case if no more than the usual interval were allowed to lapse. In the following example, had this been better attended to, I think we are justified in believing that there would have been less bleeding.

Case No. 45, Mrs C. del 23. Primipara, attended July

24th 1886. This patient is a short, stout woman, rather nervous and having such a dosage of her confinement that her rest was disturbed. For two nights previous to the 24th she had slept none. The first stage was very tedious, and after the os. was well dilated the head of the child still remained at the brim of the pelvis. From various causes, the chief of which was the refusal of the patient to submit to the operation, valuable time was wasted and several hours passed before the forceps was applied. After some trouble the head began to distend the perineum when the forceps, to prevent rupture, was removed. And in about half-an-hour the natural pains completed the second stage in every satisfactory manner. They had become short and weak, and it was deemed advisable to administer 3*gr.* of Ret. Ergot. Lij. first when the head had fully disengaged the osseum vaginae, and a second dose was given shortly after the child was separated, every attention being paid to the uterus to insure good contraction. In

20 minutes there was a very slight pain, with
friction, followed by depression, so a de-
livered the placenta and the membranes
easier, without difficulty. At once, artless
blood began to flow in a very considera-
ble stream though the hand had never left the
fundus, and the uterus was only slightly
larger than usual. It was felt to contract
and relax alternately. Firm pressure was
kept up and the usual means of ex-
ternal stimulation employed. In 20
minutes it had completely stopped but
by that time the patient was complain-
ing of noises in her head, faintness etc.
though she apparently had no idea of what
was going on, and had a great desire
to sleep. There was no return of the
fainting and she had a good, though slight
protracted, recovery.

In this case, then, exhaustion and loss of
uterine power were clearly the cause of
the haemorrhage, and no doubt had the
period of rest been prolonged beyond
20 minutes, which could easily have been

done, the chances were in favour of the uterus recovering itself to such an extent that flooding would have been avoided, or at least much lessened.

This is the best worked case of postpartum haemorrhage met with, the few others seen being only slight and readily controlled.

Case 57 is that of a multipara ~~in which~~^{whose} delivery with the forceps was necessary. Slight bleeding followed the completion of the second stage but at once stopped when the placenta was expressed.

Was it necessary, over the other could be cited, in which slight haemorrhage occurring during the third stage was at once stopped on the placenta being depressed. This is in opposition to the views of some who think that because there is flooding, depression is not applicable.

Regarding the success obtained by depression, it is, I think, all that could be desired. Besides the cases given, its employment in retained placenta from inertia will ~~will~~ afterwards be given.

It very seldom fails. Of the 126 cases, only one

was met with, in which after a per rectal was unsuccessful; ~~but~~ This is one of those, seldom seen, which must cause the failure of the method, not from any fault of the expression, but because it is not well suited for such a case. It is as follows:—
W^m. A., abt. 28, was confined of her second child on April 23rd 1886. The labour was quite natural in its first two stages. After waiting about 15 minutes for the placenta without result, abdominal friction was employed and expression resorted to in the usual way when contractions appeared. During the second pain, what seemed to be the placenta bulged the perineum and a small portion was visible, but as it came no further, the expression of the left hand was assisted by the right. Although as much force as I could command was gradually brought to bear on the uterus, it brought the body no nearer. The presenting part was then examined and found to be the placenta, but part of the membranes formed into a sort of bag and full of blood.

clots. This was ruptured and the clots allowed to escape. Expression was again tried during the next pain and was again without success. Seeing that there was probably some unusual condition present, and recognising that expression was here a failure, no time was lost in at once preparing to pass the hand into the uterus. The right ^{farm} hand was therefore carefully washed with carbolic soap and other means taken of a like antiseptic nature. The insertion of the cord was beyond the vagina. A small portion of the placenta was found just covering the vaginal cavity, but the greater portion of it was lying free in the uterus, complete separation having taken place. Toward the left side, not far from the fundus, the fetal membranes were found adherent over a small area. The adhesion was very firm but the fingers soon carefully stripped it off from the uterus. A similar spot of adhesion was then encountered near the first, and similarly dealt with. While all this was being done, the fundus as usual was firmly grasped and supported by the

left hand. No further connection between the secondaries and the uterus being felt, the right hand was passed over the whole mass, action elicited, and the whole contents expelled by a powerful contraction. The left hand over the fundus maintained good contraction and the bleeding, which had been pretty copious, at once stopped.

The membranes were carefully examined. They were rent at one point, in other respects they were natural in appearance, except at the two points of adhesion. There, they were much thickened, rough, and organised looking, having a darkish-red, fleshy appearance on their uterine surfaces. One spot, situated about three inches from the margin of the placenta, was quite circular in shape and about the size of a crown piece. An inch and a half from this, was situated the second, which was exactly similar to the first, except that it was a little less in area. The placenta itself was quite natural in every respect.

There was no secondary haemorrhage. ~~so that~~

Recovery was rapid and without check. With regard to the adhesion between the membranes and the uterus in this case, there is no doubt, judging from the appearance, that it was of an inflammatory nature, and no doubt arose in either the decidua, or the walls, of the uterus itself. A localised, sub-acute, or chronic, inflammatory state of either of these tissues, leading to scission and the formative tissue-changes that would follow, is quite sufficient to explain the whole circumstance.

But, regarding the origin, or starting point, of this morbid condition, this more difficult to give a satisfactory explanation.

It is interesting to add that about six weeks before her delivery, this woman consulted me with regard to dull, constant, knawing pain in the left side of the abdomen. No minute examination could be made at the time, and thinking that derangement of the digestive function, and of the bowels, was at the root of the uneasiness, medicines to regulate the digestive tract were prescribed. They were of no benefit, however,

and the local application of belladonna was equally devoid of any beneficial results. In about four weeks the pains lessened and gradually disappeared. At the time of her delivery, this circumstance was remembered and it was remarked that the side (left) on which the adhesion occurred, corresponded with that on which the uneasiness was previously felt.

Here then we have a case of failure of separation, and from the condition found in utero, we are warranted in concluding, in the absence of any other cause, that it depended on the morbid adhesion of the membranes. No doubt if the body of the placenta, which was quite unattached, had been expelled, the membranes would have remained firm, or been torn and more or less of them left behind. But the condition that insured their rupture in that event, prevented that complete contraction of the womb necessary for the expulsion of the placenta, and for this reason expression may be employed in such

cases without causing any harm.

Besides being useful in the management of the third stage of labour, expression may also be employed with advantage when that stage is completed. Cases are sometimes met with, where the uterus, after the placenta is delivered, relaxes to a greater extent than is compatible with the woman's safety. In such cases, moulding and pressure with the hand over the fundus will usually be sufficient to bring about a proper state of contraction. But if not detected at once and rectified quickly, clots will most probably collect and favour a further relaxation. In this way even if no haemorrhage makes its appearance externally, the uterus may reach a state of enlargement which places the patient in a position of no little danger, and which requires the application of expression to insure her safety. At least the uterus requires to contract to the proper size and this can best be secured by expression. The following is a case report, Case No. 121, Mrs. D. A. 27; confined on Nov. 26, 1887. She is a pale, anaemic woman who has borne

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six children during the last eight years. A few days before her last confinement she had two fainting fits. The child was born 17 hours before I saw her, and, according to the nurse's statement, the afterbirth came away without interference, a short time afterwards. On placing my hand over the abdomen the uterus was found to be soft and flabby as well as enlarged to such a degree as to reach almost as high as the umbilicus. There was then no bleeding externally and from the appearance of the bedlinen, less than the usual amount had been lost. An examination of the secundines showed them to be intact and quite natural. The pulse was rapid and weak; the patient febrile but had had no pain for some time. Ect. Syr. Sij. 3*i* was at once given; the hand was placed over the fundus, friction and gentle pressure being employed. In a few minutes contractions appeared and these, assisted by moderately firm expression, expelled a large number of clots and maintained

food contraction. The hand was kept in contact with the fundus for a short time; the child put to the breast, and other means employed to prevent relaxation. None took place and the future progress of the case was quite natural.

(3) Delivering the Hand into the Uterus.

The manner of performing this operation is described in every treat-book and need not be mentioned here.

We have already seen that it has long been practised, more frequently so, perhaps, in past generations than at the present time; for, as other methods become more perfect there is less necessity for the employment of this, which may be looked upon as the dernier resort of interference in the management of the third stage of labour. The operation itself is not difficult, but its nature, the cir-

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circumstances under which it is demanded, and the difficulties sometimes met with in the removal of the secundines after the hand is brought in contact with them, all contribute to make it, at times, a trying, a difficult, and a dangerous, operation; too, the accoucheur has to be most on his guard against those evils of a septic nature which may afterwards mar the success of the case, even when the operation was performed with every appearance of success at the time. The frequent use of carbolic soap, carbolic vaseline or other antiseptic preparation of a similar kind, which forms part of the accoucheur's "instruments" is in these cases all the more required.

which hand ought to be passed may readily be left to the choice of the operator. Though the left, for anatomical reasons, is usually recommended, the right has been used in the few cases I have had with, without any hindrance being encountered in the passage. why I use

it, is because the other can reach the fundus more readily than the right and is more useful when there, it being the one most frequently employed in expression.

It is a great mistake for any one performing this operation, to neglect having one hand placed externally over the uterus to steady it, prevent relaxation, and also to look it under observation, as well as to assist contraction when that is required. This is mentioned sometimes or we may see occasionally in reports of the medical journals (see British Medical J. for Apr. 17. 1886).

According to Dr Ransbotham's practice when the hand was passed every time the uterine efforts alone failed, in an hour, to expel the whole placenta into the vagina, it could not fail to be frequently recorded to. At the present ^{time}, the greater number of such cases would be speedily and efficiently terminated by impression, without any necessity for the method now being considered. For this reason, the more simple, will replace the more serious, opera-

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ation and considerably lessen its frequency to the advantage of all concerned.

Seldom as this operation is now required, there is, apparently, no prospect of its being altogether discarded, trying and repairing however it has to both the patient and the accoucheur. For, in certain abnormal cases, it is not only necessary for the removal of the placenta but it is also the best measure in the end, for the safety of the woman. In the case of adhesion of the membranes to the uterus already given, had the placenta been expelled by expression, or, after feeling it quite free in the lower part of the womb, had it been removed without the hand detecting the adherent membranes, it is certain that some portion of them would have been left behind to give further trouble and possibly cause serious consequences to the patient. Therefore in that case, the passage of the hand was the only way in which the case could be properly and effectively terminated.

The same holds good with regard to morbid adhesion of the placenta, but in partial

separation, though such has not been met with for certain, I would be disappointed if expression were not found to be sufficient in the majority of cases. But it is quite possible, that in partial separation, the bleeding may be so profuse and the case so urgent, that the short time necessary for the preliminaries of expression could not be spared, least the patient should die in our hands. Under such circumstances, whether the haemorrhage be due to partial separation or not; internal exploration, to remove the placenta and to stimulate the uterus to contraction, is required without delay.

With regard to morbid adhesion of the placenta itself, no cases ~~at full term~~, were met with, but one of abortion about the fifth month, affords a good example. Though it properly belongs to, and ought to be classed under the head of Retained Placenta, it may be here given.

Case No. 9.-Mrs. D. Aet. 31, is the mother of three children, the youngest being $2\frac{1}{2}$ years of age. Before the abortion on the 5th of Jan'y. 1886, she had a short illness, during which I was informed

that she considered herself to be 5 months with child. When convalescence appeared, at an early hour of the day on which she was given permission to leave her bed for the first time, labour pains came on. Almid-wif^r delivered the foetus and an hour after she was seen by me, the secondaries having remained behind. There was then no external haemorrhage, but previous to my arrival it had been slight. Her pulse was rather rapid, owing chiefly to her anxiety about the after-birth; she felt no pain after the birth of the foetus, and with the exception of slight maternal excitement, felt quite well. The cord was flaccid and empty, and the uterus, above the pelvis, was found to be about the size of two fists and firm. The finger was passed along the fundus, which was traced beyond the vagina without its insertion being reached. The os was the size of a crown-piece almost. Expression was not attempted, but 3*i* of S. E. & L. given and the hand slowly passed into the vagina. It could not be passed into the uterus, however, the os

being delayed only sufficiently to allow the
expulsion^{of the fetus}, and undilatable by the hand.
Three fingers were introduced into the womb
and the placenta found at the fundus, at-
tached firmly in the whole of its extent.
The fingers were at once inserted between
it and its uterine attachment, and the left
hand, steady ing the uterus, was placed over
the fundus. The peeling process, beginning
at the edge of the placenta, was cautiously
continued inwards for a short distance, un-
til it became impossible to distinguish the
placental tissue from that of the uterus,
when this was the case, the process at that point
was discontinued, and the fingers brought to
bear on a fresh part at the margin, the strik-
ing process being then gently proceeded with
till it again became impossible to distinguish
between the two tissues, when a new part was
attacked. In this manner, all around the
adherent placental margin, this was continued
as carefully and gently as possible, till the
whole, or as much of it as was thought to
be placental, was detached - The difficulty

was great, the body being often in cramped positions and it was very fatiguing. The impossibility of distinguishing between the two tissues arose frequently and was very aggravating. The utmost care was required to avoid doing any injury to that part of the uterus to which the placenta was adherent. When separation was at last effected, the movements of the hand internally, and externally over the fundus, elicited contractions, and the hand, along with the secundines, was then expelled, the left at the same time following the uterus and keeping up firm pressure over the fundus. The haemorrhage, or one would expect, was very considerable but not alarming. Chloroform was objected to, but notwithstanding that, the patient, who perfectly well understood the necessity for the operation, bore it bravely. From time to time during the first hour that it lasted, a tablespoonful of brandy in water was administered, and immediately after the hand was re-

moved, a second teaspoonful of ergot was given. After compressing the uterus firmly, a pad and firm bandage were applied.

An hour afterwards there were no indications of any bleeding and she felt sufficiently well to be left. She remained in bed for 10 days, during which she had no bad symptoms, the pulse and the temperature being only, on one occasion, over the normal, the latter reaching almost 100°F . The discharge remained so far natural that the vaginal douche was never required and there was no secondary haemorrhage. In two weeks she was able to walk about her room and complained of nothing but weakness.

Hughes made many months after this, elicited the information, that this woman's uterine functions were quite natural and that she enjoyed perfect health.

Some months after this case fell to my lot, a somewhat similar one was reported in the British Medical Journal of 15th May 1886, in which a different line of treatment

was followed. In it, the difficulty of distinguishing the placenta from its uterine attachments, and also the condition of the patient, induced the medical attendant to stop the process of separation when a third, only, of the placenta was removed. Ergot was administered daily and the uterus washed, night and morning, with an antiseptic lotion. In two days a large piece of the placenta was washed out in a very offensive state, after which no bad symptoms appeared. The gentleman remarks that, "This case points out very clearly, that it is better to remove only part of the placenta than to persevere too much in efforts to remove the whole, when it is as completely adherent as in this case; and further, that nature if assisted will complete all that we may be enabled or unwilling to do".

I cannot altogether agree with these remarks and am inclined to think that in such a case, as little as possible should be left to the care of nature after she has once failed to remove the mass. The facilities for haemorrhage afforded by partial removal

are increased, one would think; the slight chance of the retained part being removed by a process of sloughing before the os closes: the danger of septic absorption to which the patient is exposed: the doubts that arise lest some portion may remain behind and cause future mischief, and the trouble connected with such a procedure as that recommended, all point to the immediate removal of the mass.

One of the dangers of postural removal of abortion is well given in the "British Medical" for Apr. 17. 1886, under the heading of "A Case of Imperfect Abortion" in which the woman, for 12 months after her confinement, was kept in a state of misery and some danger from the presence in the womb of a portion of the decidua.

No doubt, as in the case first ^{cited} given, the mass may come away completely and the patient regain perfect health, but this cannot be depended on with any degree of certainty, and even if a portion remains behind the difficulty of its removal is greatly increased by

the delay. In cases of adhesion at the full time, the necessity of removal at once is all the greater for obvious reasons.

When there is irregular uterine contraction, "horr flacc", or any other form, this method will be required to overcome the spasm and after that to remove the placenta. A case in which this form of contraction occurred at the neck of the womb has already been given. It is the only case I have ever seen, and I am therefore in no position to add more from my own observation. In that case, I am of opinion that expression had something to do with its production, or rather, its employment too soon after delivery. It is quite possible that the proper application of expression, instead of pulling at the fundus; the recognition of the right time when assistance should be given, and the refraining from interference when none is required, may have a great deal to do in making such cases less frequent. —

Occasionally, it may be necessary to pass two or more fingers, or even the hand, into the

uterus when clots collect in the passage after the placenta is removed, and when it is not thought advisable to employ expression.

In Case No 26, half-an-hour after the removal of the secondaries, the patient complained of almost constant, pretty severe pains in the back and the abdomen. There was no discharge. On removing the bandage the uterus was felt to be about the usual size, firm and painful when gently touched. Two fingers were passed, and near the cervix a large clot was felt. This was carefully removed and was followed by two small ones, the woman getting immediate relief. Evidently the pains were caused by uterine action set up by the irritation of the clot which had become jammed in the passage.

The Use of Syrpt.

When attending the Maternity, the teachers there, strongly recommended the students to administer ^{as much} a teaspoonful of the liquid extract of Syrpt (at least) to every case,

as a safeguard against flooding. Afterwards I soon found that this frequently annoyed the patient, the after pains being very severe, and it was discontinued.

In cases of haemorrhage, or where there is some danger of its arising, the uterine contractions being feeble, one or two doses are given but this rarely required.

In every case, the child is put to the breast for a few minutes before the patient is left, according to Dr Rigby's rule. Whether from this or some other cause, fortunately no case of secondary haemorrhage has ever (taken place) arisen, although ergot is not by any means frequently used.

Laws of Retained Placenta.

There is opportunity for some variety of opinion regarding the length of time the placenta must remain in utero, before the case can be said to be one of retained placenta. Dr Hunter, for example, waiting as he did, for 48 hours after the birth

of the child before intervening, and demands both
an, delaying 1½ hours before taking any steps
to facilitate expulsion, so long as no haemorrhage
occurred, would naturally disagree on this point.
In like manner, if we consider 20 minutes quite
sufficient, in most cases, for nature to complete
the third stage unassisted, any considerable ex-
tension of that time ought to warrant us in
designating it a case of retained placenta.
However, this is of little or no use practically, and
in the following cases small regard is taken
whether or not they can be so classified. They are
selected, not because of any abnormal con-
dition being present to retard delivery, but
are given, simply as a record of those labours
in which the second stage was completed
before my arrival, and the placenta was
left behind. When any special difficulty
arose during the last stage when I was pres-
ent, the management of the case was proceed-
ed with after an interval of at most 20
minutes, and though in some of these, cir-
cumstances were present which would have
effectually prevented the process from be-

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ing completed by the natural efforts alone,
yet they are not here mentioned.

To prevent repetition, a few remarks will
be made on the cases as a whole, after which a
few of the best marked examples will be
given at greater length.

As already stated, of the 126 cases attended,
26 were, from various causes, such as distance,
slow means of communication, and others, com-
pleted, as far as the second stage was concern-
ed, before I ever saw the case.

Of these 26, in 6 cases the third stage was also
ended without any interference, and in the
remaining 20, more or less assistance was
required. The time that had elapsed be-
fore they came under observation varied as
follows. In 8 cases, the secondaries had been
retained at least half-an-hour.

In 5 cases, at least one hour.

In 3 cases, $1\frac{1}{2}$ hours: in 3 cases 2 hours;
and in 1 case, at least 3 hours.

Careful inquiries were made in each case
with regard to the exact time when the
child was born, and where any uncertainty

existed, which was seldom, the time was decreased rather than lengthened. Moreover in the time overstated; one of the 8 ought to be marked 25 minutes instead of 30.

Except in No 9, which is somewhere reported, the cause of the delay was, in every case, want of uterine activity, and in all, it was of a slight form; that is to say, the want of activity was displayed by the womb remaining in a state of rest and making no, or, at most, very slight, endeavours to expel the mass. In some, one or two slight pains were felt, but these had no apparent effect and had disappeared some time before I saw the patient. In none of them was there any marked inertia such as to lead to considerable relaxation and haemorrhage.

In most, there was no more than the usual quantity of blood lost, and in the remainder, any bleeding that occurred was quite trivial.

One was a primipara and all the others had three or more children, some of them having large families.

with very few exceptions the women were about 35 years of age and some 45 or more. Some of the younger were not by any means robust.

No. 15. N.G., Att. 28, Primipara. Feb 5. 1886.

This woman was attended by a midwife who became frightened when the placenta failed to appear some short time after the birth of the child. I saw the patient 1½ hours after the end of the second stage. The general excitement had subsided to her. She felt well, had no pains during the last hour and only a few slight ones now long after the baby came. There was no bleeding; the cord pulseless and flaccid. The finger passed along it came across its insertion in the upper part of the vagina. The uterus was firm and of the usual size.

A teaspooonful of Emb. by oil Lij. was given and five minutes afterwards uterine activity was set up by friction over the fundus, and moderately firm pressure readily expelled the secondaries

without any difficulty. A few small clots escaped but there was no haemorrhage.

Recovery was rapid and perfect.

Evidently the placenta in this case was chiefly, if not entirely, in the vagina, and, most probably, after a longer delay it would have been expelled by the natural efforts alone.

Case 44. Mrs H. Oct. 35, Multih. - Jan. 29th 1886.

I had just started on a journey when the messenger came for me to go to this case, and as I did not return for 4 hours or so, the consequence was that when I saw the patient the third stage had lasted at least three hours. There was no bleeding beyond the usual; the cord was pulsable and placcid. There were slight pains just after the child came but none since.

The uterus was fairly firm and slightly enlarged as if it contained the placenta. No vaginal examination was made.

The treatment was the same as in the other, except that no syrpt was used. There was no haemorrhage, only a few clots expelled along with the placenta. The

recovered rapidly without a bad symptom.

Case No. 90. - Mrs. B. age 38 - 5th child; May 9. 1887.

Though a misundertaking this woman was not seen till two full hours after the arrival of the child.

The uterus was firm, larger than a child's head at term, and evidently from its size, containing the placenta. ^{There was} no haemorrhage since the birth of the child, and then only the usual amount, ~~and~~ ^{another} was placed on a pulseless cord, because only slight pain were felt. No examination per vaginam was made.

A dose of Jugo was given, shortly after which the uterus was roused to activity by the usual frictions, and when it was felt to be contracting expression soon expelled the placenta and a few clots without any difficulty. There was slight bleeding during expression but it stopped at once as soon as the placenta was expelled. Recovery was rapid and very satisfactory.

(cont'd.) No. 126 - Mrs R. Oct. 28, multip. Dec. 16. 1887.

The baby was born shortly after the nurse-maid left and two hours had elapsed before the woman was seen, the placenta being retained. The uterus was found to be slightly looser than usual and by no means firm. The cord was pulseless and there was no bleeding, and there had been no pains during the last hour.

Abdominal friction and moulding of the uterus were in a short time followed by contractions, and firm pressure soon expelled the placenta and the membranes, without difficulty, and without haemorrhage.

This patient was an anaemic and constitutionally weak woman, belonging to a consumptive family. Her recovery, as usual with her, was not rapid but altogether free from any ushering symptoms.

These few will be sufficient to afford a good idea of the symptoms and the mode of management of all these cases of so called "retained placenta". There was no marked difference in the course of any of the others, all were managed in the same way, and

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in all, convalescence followed without a single uterine symptom appearing, in fact, with the exception of some slight delay from constitutional weakness in two cases, recovery was very rapid.

In all expression proved quite sufficient without having recourse to the passage of the hand into the uterus, and in none, was there any excessive force employed in carrying out the method. It is perhaps also worthy of remark, that in these cases, less difficulty with the membranes than usual was experienced. In the majority of the cases, they followed the body of the placenta at once; in a few, they became lost, but on removing the hand from the fundus, and waiting two minutes or so, they were recovered by twisting them slightly and ^{by} gentle external traction. In no case was it necessary to pass the fingers along the cord for this purpose, and in none were the membranes torn in the least.

In a few of the cases first seen, as in the 200 or 300 rd in any case first attended, before expression was employed a vaginal reamination

was always need to ascertain if the placentae were within reach of the fingers. In some patients this produces excitement, and in a great many, more or less consciousness, which should be avoided whenever possible. Did one intend to pull out the cord if the placentae were found to be in the vagina, this examination would be necessary, but never doing this under any circumstances, and considering it proper, even in these cases, to use expression for the expulsion of the placentae, of the clots which have to be found along with it, and also to insure complete contraction, such an examination is dispensed with. Whether lying in the uterus or ⁱⁿ the vagina, expression is equally applicable and effective. Of course, when expression fails, or when from some sufficient reason it cannot be employed, vaginal examination may be required and in that case ought to be made, however disagreeable it may be to the patient.

The results of expression in the

cases now under consideration are so very satisfactory that one is encouraged to employ this method in the future, in preference to any other. Besides its success there are now a few advantages of even more importance which render its practice all the more desirable, if not necessary, in the management of the third stage of labour. It is easily carried out; it is more free from danger than any other; no internal manipulation is necessary in the great majority of cases, and it can be employed independent of the patient - without any assistance from her whatever.

The external manipulation, which may be looked upon as the first stage of expression, supplies valuable information with regard to the condition of the uterus and like the whole process, does not depend in any way on the susceptibility of the woman. This is sometimes of importance, and no doubt its advantage is experienced in cases where chloroform has been administered, but in such

it is also absolutely necessary as it is in some abnormal cases more rarely met with. For, in the former, a delay of a few minutes will insure the consciousness of the patient, while in the latter, you cannot look for a word for a like period even after a long interval of time.

Two cases of this nature were seen in which the advantage of being able to manage the third stage without any help from the patient was highly appreciated. The first, No. 65 was that of a woman, aged 45, who was confined for the first time. Just at the onset of the labour she had a hemiplegic attack which had somewhat impaired articulation and the mental function.

The second case, No. 125, was also a primipara, aged 35, who had suffered from eclampsia. The child was delivered with the forceps during a convulsion, after which consciousness was lost for some time, and before it returned the third stage was completed. In neither case was there any difficulty in con-

ducting the stage with as great facility and success as usual, and the comparatively small amount of external manipulation required in each, could not fail to be less dangerous to the patient and more conducive to the happy results that followed in both cases, than any other course of interference by internal manipulation.

The length of this paper which has greatly exceeded what was at first intended, forbids recapitulation, or the consideration of the manner in which inspiration acts on the uterus. The practical points already detailed, I hope, in a great way in favoring inspiration to be, by far, the best method for the management of the third stage of labour, and the one least annoying to both the patient and the accoucheur. It ought to be employed in every case, and when it fails, which very rarely happens, it should be abandoned and reliance placed in the old, but more serious, operation of passing the hand into the uterus. So managed, the last stage when carefully attended

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ed to, will very seldom cause any anxiety or trouble; and far more rarely will any harm befall the patient at the time, or any complication of a septic nature afterwards arise.

James J. Campbell.