REMARKS

ON

THE INVESTIGATION OF THE INTERIOR OF THE UTERUS BY THE CARBOLISED HAND AT LONG INTERVALS AFTER DELIVERY.*

By J. MATTHEWS DUNCAN, M.D., F.R.C.P.E.,
Obstetric Physician to St. Bartholomew's Hospital.

MRS. A. B. was confined at her home in the south of Scotland on June 5th, 1876. The child born was her second. She was attended by her physician, who lived in the neighbourhood, and to him I owe most of the details now to be given of her case. The labour was easy, natural, and lasted four hours. The placenta was removed without difficulty about fifteen minutes after the birth of the child. The membranes were twisted to ensure their complete withdrawal, and then a dose of ergot was administered. At 9 A.M., all was completed and well. In the evening of the 6th, Mrs. A. B. had a feeling of cold in the back and severe lumbar pain. On the morning of the 7th, her pulse was 120, and at night it was 140, at which rate it continued till after my visit on the 8th. The temperature rose correspondingly, but no note of its height is preserved.

In response to a telegraphic message, I saw the patient on the afternoon of the 8th, eighty hours, or nearly three days and a half, after her confinement. I found her with every appearance of having an attack of pyæmia or puerperal fever *post partum*. The abdomen was slightly tympanitic, the uterus somewhat tender.

The circumstances of the case, both intrinsic and extrinsic, rendered the crisis extremely alarming and important. The lochial discharge was natural, and reported as having no fetor. Nevertheless, I made a vaginal examination, pushing the finger into the cervix uteri, and hooking away shreds of clot, which were unexpectedly found to be distinctly putrid. A second attempt brought away a small bit of membrane, putrid. Being at a great distance from proper instruments to complete what I regarded as the desirable treatment—namely, the removal by forceps of any other pieces of membrane or decidua—and time being very valuable, I had chloroform administered, with a view to the introduction of my hand into the vagina and of my fingers into the uterus, to effect the exploration and removal of what might be found that should be taken away. Doing this, I gradually penetrated farther and farther into the uterus without finding anything. At last my whole hand was inside the organ, which felt not unlike an uterus only recently evacuated. In the fundus of the uterus, it was now my extreme good fortune to find adherent an irregular lacerated patch of chorionic membrane, about four inches long and an inch broad. It was found to be fetid. After this, I left the patient.

Both pulse and temperature fell in a marked manner after this operation. The alarming appearance and symptoms disappeared. The pulse remained high for several days; but the extreme anxiety of the physician and friends was subdued for good.

The fetor of the discharge was recognised by the nurse after my visit, but only at first, or for less than a day.

While, as is well known, there is often insuperable difficulty in classifying cases of so-called puerperal fever under the heads pyæmia, septicæmia, ichoræmia, there can in this instance be no hesitation in designating the disease as simple septicæmia. Such cases are familiar to the gynaecologist. A decomposing uterine fibroid, a decomposing blood-clot in a hæmatocoele, produce shiverings, sweatings, vomiting, delirium, high pulse, high temperature: a most alarming combination of symptoms, which, on the removal of their cause, is dissipated with extraordinary rapidity, in a few hours, as if by a charm. Such was the fortunate course of events in the case just narrated; but, had the putrefying membrane continued much longer in a puerperal uterus, a fatal result was probable.

It is well known that membranes, and even the placenta, may be left *in utero* and not give rise to alarming symptoms, even though putrefaction ensues, which is not always the case. That there is risk, however, in leaving even shreds of membrane, was known to Delamotte,† and to White,‡ who, writing in the last century on the expulsion

of the placenta, says: "It is to be handled gently, and with great care gradually brought away, lest any parts of the caduca, chorion, or amnios should be left behind; for this would occasion a very putrid discharge, together with pain and a fever." The danger, thus too unconditionally asserted by White, more cautiously by Delamotte, is, on the other hand, and injuriously, ignored by many, and among others by John Ramsbotham,* who says that, "when the placenta is withdrawn, a portion of its attached membranes will occasionally, under the greatest care and attention, be separated, and be left in the uterus or vagina, without any future detriment to the patient".

In the case which I have narrated, the greatest care and attention did not secure the complete withdrawal of the membranes. The position of the persistently remaining shred renders it unlikely that any forceps would have reached it and removed it entirely; nor is it probable that it would have come away in the discharges early enough to allow of the preservation of life, already most seriously threatened. It is under these circumstances that I propose the new operation of investigating the interior of the uterus by the carefully carbolised hand of the accoucheur, with a view to finding and removing decomposing substance. In such a state of matters, I have hitherto used the practice of Baudelocque;† namely, antiseptic intra-uterine injections. I employ a double catheter, and I have repeatedly had reason to be satisfied with the results. But, in the cases where I have used this treatment successfully, there has not been washed out by the injections any shred of hidden membrane; and I very much doubt whether injections, in the case which I have narrated, would have produced this supreme result; for, besides the difficulty of directing the current so as to envelope and remove the adherent membrane, there is the absence of any knowledge where the hidden membrane is—absence, perhaps, even of suspicion of its presence.

There is, of course, as yet, no properly formed professional opinion as to the length of time after delivery during which it is possible to introduce the whole hand into the uterus in a natural case; and it is the whole hand that has to be introduced with a view to doing completely the operation I propose. The nearest approach to conditions similar to those of my case is found in instances of retention of the placenta. Active interference in this morbid condition implies introduction of fingers, and often of the whole hand; and the difficulty feared is contraction of the internal os uteri or higher up. Hegar, a recent author‡ on the subject, writes as follows. "Osiander gives the advice to wait an hour.... Kilian allows two hours to pass. Jörg, Seiler, Schmidtmann, give similar directions. Hohl says from a quarter to a whole hour.... Boivin allows a space of an hour. Paul Dubois limits the interval to an hour, or at most an hour and a half.... Chailly and Cazeaux follow his example. Maygrier, as well as his collaborator and translator T. von Siebold, express similar views. Maygrier allows two hours of expectation. Burns will not leave the lying-in room until the placenta is extracted; and, if this is not effected within an hour, then he may go away. Clarke, Merriman, Ramsbotham, R. Lee, and the American Meigs, entertain similar views." In another place, Hegar, expressing his own views as to the length of waiting under special circumstances, says that removal of the placenta may be effected even two days after delivery without special difficulty or force; and that, if the whole hand be not introduced for this purpose, at least a few fingers may be pressed into the uterine cavity.

The latest author on this subject, M. Bailly,§ describing cases of retained placenta, concludes his article by laying down "that the uterus remains, in general, permeable for the hand of the accoucheur during more than an hour after delivery; that exceptionally, and in virtue of a natural inexplicable disposition, uterine retraction may, long before the end of the first hour, render the introduction of the accoucheur's hand into the womb very difficult, and greatly impede or obstruct deliverance; that, if the woman has taken ergot of rye a short time before the end of her labour, she ought to be delivered in less than a quarter of an hour after the birth of the child, to avoid the effects of the contraction of the cervico-uterine orifice and of the retention of the placenta in the uterus".

There can be no doubt that these opinions of Hegar and Bailly require reconsideration, as the historical details which I shall presently give will show. But these historical details, while they compel modification of the views generally held, and contribute valuable data, do not leave the subject in a satisfactory state, it being evident that much more inquiry into the matter is demanded, more experience accumulated.

* Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Manchester, August 1877.

† *Traité complet des Accouchemens*, Nouv. ed., 1729, p. 609.

‡ *The Management of Pregnant and Lying-in Women*, 2nd edition. London, 1777, p. 112.

* *Practical Observations on Midwifery*. London, 1842, p. 96.

† *System of Midwifery*, Heath's translation, vol. ii, p. 25.

‡ *Placental Retention*, 1862, ss. 150, 175, 177.

§ *Archives de Tocologie*, Juin 1876, p. 360.

Delamotte,* in 1869, introduced his hand into the uterus to remove a placenta from the uterus of a woman twenty-eight hours after the birth of the child.

Chapman† extracted an adherent placenta, introducing the whole hand for the purpose, five days after delivery.

Burton‡ introduced his hand to extract a placenta twelve hours after the birth of the child.

Smellie§ introduced his hand to extract a placenta twelve hours after the birth of the child.

Pugh|| says as follows: "When I have been often sent for, where midwives could not extract it (the placenta) twelve, twenty-four, or thirty-six hours before, and by anointing my hand well with pomatum, I cannot say I ever met with any very great difficulty in introducing my hand into the womb."...

Collins¶ introduced the hand in a case of hæmorrhage on the fourth day after delivery.

R. Lee** introduced the hand to remove a placenta twenty-two hours after delivery, and in another case twelve hours after the delivery of the child.

Haddon†† examined the interior of an uterus on the seventh day after delivery, introducing his hand.

Some years ago, I was called in consultation by the late Dr. Coldstream, and removed an adherent placenta more than two days after the birth of the child. There had been great flooding. No difficulty was experienced in introducing the hand into the uterus.

The records of midwifery and ordinary experience show that the difficulty arises from uterine spasm, affecting generally the cervix, and especially its internal os, or rather the lowest part of the body of the uterus; and this is naturally expected, for it is the seat of the first obstruction to be overcome. But I am decidedly of opinion that it is not only the first met, but also the chief difficulty. The lowest part of the body of the uterus, or internal os of the cervix, is, in natural and morbid conditions, more difficult of dilatation than the parts of the body of the uterus above it. The history of natural pregnancy, cases of retained placenta, many cases of hourglass contraction, the dilatation of the unimpregnated uterus by tents, all combine to demonstrate this. Besides, many cases are on record where, long after delivery, as long as twelve or even nineteen days,‡‡ the body of the uterus was large and dilated by contents, while the cervix was contracted. But the whole subject demands more and deeper study and investigation.

It has occurred to me that there may be especial difficulty in introducing the hand into the uterus during the first few hours after delivery, when the uterus is particularly irritable and in a state of greater tonic or permanent contraction than it is subsequently. The same idea was long ago mooted by Delamotte,§§ who enters at some length into theoretical reflections with a view to accounting for a circumstance which, however unlikely, is, he says, confirmed by practice and experience.

"The os uteri", says Burns,||| "affords considerable resistance to the introduction of the hand in cases where the retention (of the placenta) has subsisted for some days; but by very slow and gentle efforts, such as are scarcely felt by the patient, it may be dilated. Sometimes it yields very easily, or is not at all contracted. If, however, it be rigid and unyielding—a condition rarely conjoined with retention of the entire placenta—we must not use violence." There seems to me to be some truth in the notion that repletion of the uterus favours a relaxed condition of the cervix; but I cannot discover the law which regulates the condition of the cervix in this respect. There are many cases of rigid cervix in early labour when the uterus is replete. On the other hand, I have repeatedly, in urgent circumstances, introduced my hand into the uterus and effected delivery without difficulty before labour had commenced. Again, on the other side, I have seen the greatest rigidity of the whole cervix before the birth of a second twin. In 1863, I was called to a great distance to aid a woman in her second labour. A child was born on December 29th. It was the first of twins; and no anxiety was felt as to the birth of the second, for the membranes of the second were (erroneously) believed to be unruptured. On January 1st, I found the uterus tender and tympanitic;

child dead; discharges putrid and mixed with fetid gases; pulse 120. The whole cervix was contracted into a rigid tube. The supposed bag of membranes was a sort of *caput succedaneum* formed on the thorax, which was the presenting part. I never experienced so great difficulty in introducing my hand to turn; nor did I ever suffer greater pain than I then felt in my hand, wrist, and arm. At length, I succeeded in turning and podalic extraction. The woman made a good recovery.

When the cervix is passed by the hand, there may yet be great difficulty; but there will probably be none, unless there is a morbid spasm higher up in the uterus than the internal os of the cervix. On the dilatation of the body of the uterus, I shall offer a few concluding remarks. While there are on record cases in which the hand has been introduced into the uterus several days after delivery, when it contained blood or placenta, there is none in which this operation has been done merely for the discovery and removal of a small piece of membrane, whose size involves no distension of the uterine cavity. That the novel operation, which I performed three days and a half after delivery, may, with advantage, be done even considerably later, I do not doubt. But at present the whole subject, of the capability of the uterine body to admit the hand at long intervals of time from delivery, is in an unsettled state, and demands the clinical investigation of obstetricians on account of its evident practical importance. Besides clinical observations and investigations, laboratory experiments may be advantageously made, with a view to the elucidation of the matter. Some have actually been made, not indeed with a view to test the expansibility of the body of the uterus, but with the result of demonstrating it *post mortem*. M. Glenard, studying the source of the uterine soufflé of pregnancy, and having no dead pregnant woman for his regional inquiry, distended the uteri of women recently delivered, with a view to reproduce the relational conditions of pregnancy. In the case of a woman who died of eclampsia on the fourth day of her lying-in, he distended the womb by injecting air into a caoutchouc bladder placed inside. "The uterus (he says*) thus distended, measured 31 centimeters from its upper part to the symphysis pubis; it surmounted the umbilicus 10 centimeters, and its greatest transverse diameter was 18 centimeters; the distance from the umbilicus to the iliac spine was found to be 20 centimeters; from the fundus uteri to the xyphoid appendage, 13 centimeters. It was thus almost a uterus of seven and a half to eight months." Many more experiments of this kind cannot but prove interesting and important.

Experiments such as those of M. Glenard do not stand alone in pathology, and probably do not altogether meet the main difficulty, which may lie in the dilatation of the cervix, and especially of its internal os. The rapid dilatation of the uterine body many days after delivery is not very rarely illustrated in those cases of simple secondary hæmorrhage, and of secondary hæmorrhage with retained placenta or portion of placenta, when blood rapidly accumulates in the uterus, just as it does immediately after delivery. It is only this rapid dilatation of the uterine cavity that can be used to throw light on the operative procedure which I am in this paper proposing; but it may not be altogether out of place to remark that its slower dilatation, as in pregnancy, in simple hæmatometra, with or without atresia, and in operative procedures, demands careful study, which cannot but result in knowledge that will contribute to the elucidation of this subject.

PAROTITIS AND ACUTE ORCHITIS.

MR. OSBORNE'S memorandum on parotitis and acute orchitis is interesting; but it needs more than the narration of a few cases to prove any theory, as the following notes will testify. In February 1872, an epidemic of mumps prevailed in the Norfolk County School; and on Monday, the 21st, T. J., a man-servant aged 19, was seized with rigors and sickness, rapidly followed by acute inflammation of the right testis; he was not then suffering from any discharge, gleet, or sore; and it was not until the evening of Tuesday, the 22nd, when the parotids of both sides became painful and swollen, that the cause of the orchitis was decided. In this case also, the right testicle was affected, but the order of events seems rather to support the old idea of metastasis, or, at least, that mumps is a specific disease with a tendency to attack certain special organs with other unknown connections, than the continuity of inflamed tissues, as is manifested in Trousseau's case (Sydenham Edition, vol. ii, p. 280), and in the more common examples of the thirteenth experienced immediately the child is put to the breast by some suckling women and the chronic salivation of imperfectly castrated animals.

ALAN REEVE MANBY.

* *Archives de Tociologie*, Août 1876, p. 468.

* *Traité complet des Accouch.*, Nouv. ed., 1729, p. 599.

† *A Treatise on the Improvement of Midwifery*, etc., 1753, p. 235.

‡ *An Essay towards a Complete New System of Midwifery*, 1751, p. 132.

§ *A Collection of Cases and Observations in Midwifery*, 4th edition, 1766, vol. ii, p. 344.

|| *Treatise of Midwifery*, 1754, p. 29.

¶ *Practical Treatise*, 1836, p. 167.

** *Clinical Midwifery*, 2nd edition, pp. 201 and 204.

†† *Edinburgh Medical Journal*, July 1873, p. 35.

‡‡ See Ingleby, *A Practical Treatise on Uterine Hæmorrhage*, pp. 214, 217, 219.

§§ also Ashwell, *A Practical Treatise on Parturition*, p. 458.

||| *Traité complet des Accouchemens*, 1729, p. 600.

|||| *Principles of Midwifery*, 10th edition, p. 562.