## A CASE OF POST-PARTUM HÆMORRHAGE.

UTERUS INJECTED WITH ICED WATER AND PERCHLORIDE OF IRON; TEANSFUSION OF SALINE FLUID, ALCOHOL, AND BLOOD; RECOVERY.

BY EDWARD HENDERSON, M.D. EDIN., MUNICIPAL SURGEON AND HEALTH OFFICES, SHANGHAI.

In the management of cases of post-partum hæmorrhage, the obstetrician is rarely called upon to put in practice more than one of those ultimate resources of his art which are justly regarded as limited in their application to cases of real and pressing danger. The history of the following case, however, is a good illustration of the success which may attend the use of several of these powerful agencies. It shows well the importance of leaving no means untried by which a fatal issue may be averted, and its recital may assist in giving to others good grounds for hopeful working even under apparently desperate circumstances.

On the morning of the 25th of March in the present year I was summoned to attend Mrs. A--, in her labour at term. My patient had already borne five children. had the previous history of two severe floodings, one following a labour at the full time in 1865, and one in connexion with a miscarriage in 1871. Her last confinement in October of 1872 was in all respects natural. Mrs. A—, partly as a result of her residence in the East, but mainly in consequence of lactation prolonged, against my advice, under circumstances which were unquestionably prohibitory, was markedly anæmic, and, with a considerable deposit of subcutaneous fat, her muscular fibre had evidently degenerated and lost "tone." At my visit I found her suffering from slight pains recurring at uncertain intervals; the os being in no degree dilated, it was unnecessary for me to remain. At ten o'clock on the evening of the following day she again sent for me, declaring that she was certainly in labour now. At this second visit I found the os sufficiently dilated to admit the tip of the finger, and I was able to ascertain that the head presented. After waiting for some time, and finding that pains had altogether ceased, I again left her, first ordering for her a draught containing twenty minims of Battley's sedative liquor. (She told me that she had been unable to sleep during the previous night.) The next

summons reached me at 4 A.M., and as her residence was within a few hundred yards of my own, I saw her again about twenty minutes past four. An examination showed that the os was now fully dilated; the head presented in the first position; the membranes were entire. A strong pain effecting no marked advance, I ruptured the membranes, and the head at once commenced a rapid descent. During the short period, about half an hour, which elapsed before the child was born, I administered two half-teaspoonful doses of ergot liquor, a precautionary measure from which I believed I had on former occasions derived benefit. At the moment of delivery the European nurse in attendance supported the fundus, following down with her hand the womb as it descended. After the child was born, and the cord tied, I took the nurse's place, the placenta being still retained. Two or three strong pains followed, but the uterus seemed unable to throw off the afterbirth, and it was impossible to reach the insertion of the cord with the finger. In order to gain more command over the womb, I now made my patient turn on her back, when the first gush took place, several large clots and much fluid blood escaping from the vagina. Mrs. A—— became at once pale and faint. Upon this I passed my hand into the cavity of the uterus and carefully separated the placenta, which I found closely adherent to the fundus by about half of its surface. At the moment this detachment was nearly completed, the nurse, alarmed by the hemorrhage and by Mrs. A——'s appearance and complaints of pain, became sick and left the room, allowing me to complete my task unassisted. Hastily disposing of the placenta, I again compressed the fundus with both hands, and had the satisfaction of feeling the womb contracting under my grasp. This improvement, however, was of but short duration, for, in spite of continuous although probably relaxed pressure, the uterus again expanded, and another profuse gush of blood poured noisily into the bed. The appearance of my patient after this was sufficiently alarming, and, her husband coming to my assistance, after emptying the uterus of the clots which it now contained, I entrusted the compression to him, while I prepared for more decided measures. The nurse, evidently incapable of rendering me further service at the bedside, was sent to request the assistance of my friend and near neighbour, Dr. Johnston, and a servant was despatched for ice. After administering a full dose of brandy-and-ergot to the patient, I got ready the Higginson's syringe with the long elastic mount recommended by Dr. Barnes, and mixed the iron styptic solution according to his directions. Scarcely were these matters arranged when Dr. Johnston arrived, and shortly after him the servant with the ice. Dr. Johnston, judging from the appearance of the patient, the blood-oozing which still continued in spite of vigorous compression, and the feebly contracting and alternately relaxing uterine walls, agreed with me in regarding the case as one of much gravity; and, after a hurried consultation, we decided in the first instance to try the effect of external and internal cold. Accordingly, after again thoroughly emptying the uterus, I passed the long elastic mount of the syringe fairly to the fundus, and injected iced water freely into the cavity. On withdrawing the syringe, as an additional precaution, I pushed a piece of ice into the cavity, and filled the vagina with pieces of ice. Partly by this, and partly by well-sustained compression, the bleeding was at last arrested, and the uterus, regaining a portion of its lost force, contracted fairly. From time to time brandy and champagne were administered to the patient, with ice to allay the thirst, of which she complained bitterly. At the end of an hour and a half, after all hæmorrhage had ceased, we deemed it safe to leave her, and, returning together to our respective houses, congratulated ourselves on the successful issue of the treatment by cold.

An hour after my return Mr. A— ran hurriedly into my consulting-room, telling me that the bleeding had recommenced, and that he feared the worst. Directing him to summon Dr. Johnston also, if he was still at home, I proceeded at once to the patient's house, where I found that matters had indeed assumed a very serious aspect. The uterus was again full of blood, and oozing was still going on; my patient was blanched; her surface and extremities cold; her breathing sighing and interrupted; her pulse feeble and intermitting. Once more I introduced my hand and emptied the womb, and, Dr. Johnston arriving just as that operation was completed, proceeded without further

delay to the injection of the iron solution already referred to. As before, I carried the syringe-mount quite to the fundus, and injected slowly the whole quantity, about twelve ounces, which I had previously prepared. The first of the returning stream brought with it some blackened clots; as I withdrew the pipe, the uterus contracted, and the homorrhage ceased, never again to recur. So far we had reason for satisfaction, but Mrs. A---'s appearance was ghastly in the extreme, and I feared that Dr. Barnes's powerful remedy had been used too late to save life. proposed to transfuse some saline fluid or blood, and Dr. Johnston agreeing in the propriety of at least preparing for this, we requested Dr. Little's assistance. Dr. Little's extended experience in such matters, gained in connexion with the London Hospital during the cholera epidemic of 1866, rendered his presence on such an occasion peculiarly valuable. When he arrived, Mrs. A—— had rallied a little, - had rallied a little, and, thinking it just possible that her excessive depression might arise in part from the shock of the repeated emptyings and injections of the womb, we decided to defer further proceedings. Before leaving the house I administered two cups of soup,\* prepared from raw meat by the addition of hydrochloric acid and water, and directed that this and stimulants should be given from time to time until my

For some hours Mrs. A.—'s condition remained unchanged, but between two and three o'clock a marked alteration for the worse was apparent, and she seemed to me to be sinking rapidly. Her breathing was laboured and irregular; her voice a mere whisper; her pulse 130, feeble and intermitting; her surface and extremities were cold. She said she was dying. Feeling now certain that transfusion, to be of service, must be done without further delay, I again summoned my friends to my assistance; and, the apparatus being all in readiness, we proceeded at once with the introduction of a fluid prepared by the addition of two small teaspoonfuls of Dr. Little's powder, and two drachms of pure alcohol, to some thirty ounces of warm water. We employed Dr. Little's apparatus, which is sufficiently wellknown to need no detailed description here. It acts on a gravitation principle, and air is effectually excluded by the continuous flow of the liquid used. As we had all three used this apparatus together on two previous occasions within the year,† no time was lost in its adjustment. The change in the patient's condition which followed the operation was no less rapid than wonderful, the marked improvement in breathing, pulse, and general appearance leading us to form a much more favourable opinion as to the ultimate result. This was at 4 P.M.

At six o'clock we again met at Mrs. A---'s bedside, and were greatly disappointed to find that all the bad symptoms already noted were again apparent, and that her condition was, if possible, were than before. Everything seemed to indicate the near approach of death. We thought that if permanent good was to be effected by transfusion, it must be by the use of some more nourishing fluid than the alcoholised saline solution which we had already employed. Mrs. A--'s husband offering readily to supply the blood which we now considered necessary, I opened a vein in his arm, taking some twelve ounces of blood, which Dr. Johnston carefully defibrinated and strained, while Dr. Little once more adjusted the transfusion apparatus. After two attempts to find another suitable vein in the opposite arm, in which we failed, owing to the empty and collapsed condition of the vessels, we were obliged to return to the vein and orifice through which the first fluid had been introduced. To do this we put in practice a plan which deserves passing notice. In transfusing saline solutions by gravitation, the insertion of the nozzle into the orifice of the vein is rendered a peculiarly easy matter by the continuously-flowing stream of clear water which washes away all blood and impurity from the surface of the wound; when, however, blood is used, this little detail of the operation is rendered a much more troublesome affair, the red colour of the liquid obscuring the part and making it often difficult for the operator to find the point at which the vein is opened. —'s case, to avoid possible delay on this account, and to secure that none of the blood should be wasted, we began by the introduction of the warm saline solution simply, waiting to add to it the prepared blood, until we had ascertained that the fluid was satisfactorily entering the circulation. The result of this last transfusion was favourable beyond our most sanguine anticipations. The pulse once more filled and steadied, the breathing became full and regular, and by slow degrees warmth returned to the ex-

After this point the history of the case loses in interest. The transfusion apparatus was kept in readiness all that night and all the following day, but was not again required. The improvement so happily effected by the last operation remained permanent. The reactionary fever, though marked, was moderate. In brief, Mrs. A——'s life though marked, was moderate. In brief, Mrs. Awas saved. She was, I need scarcely say, unable to nurse her infant, for the first time in her child-bearing history, little or no milk being secreted; but at the present date (August 10th), save by her somewhat ansmic appearance, she bears little trace of the great peril through which she has so recently passed.

I purposely avoid commenting upon the history which I have now recorded, preferring rather that the facts of the case should speak for themselves. I have read what is here written to the two gentlemen to whose able assistance I owe so much, and, so far as their knowledge of the case goes, they regard my narrative as free from exaggeration or any attempt at embellishment. The important questions as to treatment in similar emergencies, which have recently occupied so much attention in England, can only be definitely settled by well-attested bedside experience, and I am satisfied to have given mine, so supported, to the pro-

<sup>\*</sup> This soup was prepared as directed by Dr. Lewndes, who was, I believe, the first to recommend its use as a powerful restorer of lost fluids in cases of Asiatic cholera (Braithwaite's Retrospect, vol. Ivili., p. 24). In a case of severe British cholera, attended with formidable collapse, I had myself tested its efficacy, and found it of much value.

† Once in a case of cut-throat where much blood had been lost, and once in a case of excessive hæmatemests following some undetermined internal lesion.