

a few pages to the consideration of the "prevention of hæmorrhage after delivery;" and, having noticed the recommendation of Dewees, to "rupture the membranes as soon as the labor is active, and the os uteri sufficiently dilated, or easily dilatable," we go on to say—"as regards breaking the membranes, we cannot speak from experience. The proposal, certainly, seems a rational one, and well calculated to promote the object in view, but should not be acted upon, we think, without mature consideration, and taking all the circumstances of the case into account: it has, however, the sanction of Dr. Lee to recommend it." It is twenty-six years since I penned the passage just quoted, and I now can say that I have adopted the precaution there described on very many occasions, and am fully persuaded it is a most valuable, and always a feasible, auxiliary in the prevention of flooding after delivery; and Dr. Dewees, from "many years of experience," was convinced it is the principal means to be relied on for preventing hæmorrhage.

Of all the resources, however, against *post-partum* flooding, I believe the most effectual to be ergot of rye. The possibility of the ergot exerting some hurtful influence on the child need not deter us from its employment in these cases, for, if the ergot fail to excite uterine contractions, the child will most assuredly be no way influenced by it;\* and if the drug produce the desired effect on the uterine muscles, delivery will in most cases take place before danger can arise to the child—and if not, we have the alternative measure of the forceps, which can safely be resorted to.

Who first employed ergot for the purpose of averting hæmorrhage, I cannot say. It seems highly probable that, soon after the peculiar properties of the drug became known to accoucheurs, it would be so used. I find Dr. Dewees gave it with this intention in a case related in the fourth edition of his "Midwifery," published in the year 1830.

When I was assistant to Dr. Charles Johnson, at the Lying-in Hospital, I frequently saw ergot given as a preventive of hæmorrhage. It used to be administered at one of three periods, viz., when the head was on the perinæum, or immediately after it had cleared the vulva, or after the expulsion of the fœtus, and as soon as the insertion of the cord into the placenta could be felt.

"By giving ergot before the child has been expelled," writes Dr. Hardy,† some time may be gained, but should the placenta be morbidly adhering to the uterus, the difficulty of introducing the hand for its removal will be greatly increased. By adopting the third plan, this source of apprehension is avoided. To this method it may be objected that much time will, perhaps, elapse, and a considerable quantity of blood be lost, before the ergot is administered; nevertheless, the possibility of the placenta being morbidly adherent should be ever present in

the mind of the practitioner, and deter him from resorting to a measure which may so greatly augment the danger of the complication." Thus wrote Dr. Hardy in 1845, and the opinions therein expressed I held in common with him. But all my later experience has convinced me that, to be of real service, the ergot must be given some little time before delivery; and, also, that the objection he advances against this mode, is practically of no weight, inasmuch as morbid adhesion of the placenta is a very rare occurrence. Dr. Whittle's plan is to administer, as soon as the os uteri is fully dilated, a full dose (that is, one teaspoonful) of a liquid extract of ergot twice the strength of that of the Pharmacopœia. This is exactly equivalent in strength to what I myself give, viz., two drachms of the liquid extract of the British Pharmacopœia—a preparation I have used for some years back to the exclusion of all others, and which very seldom fails to produce the specific effects of the medicine on the uterus. In dealing with primiparæ, Dr. Whittle very properly cautions us not to administer ergot until the soft parts are pretty well dilated, as well as the os uteri; and to give the drug in much smaller doses, as it sometimes acts with unusual energy in primiparous women.

In a paper published, May, 1846, the late Dr. Thomas E. Beatty—so well known and respected in this Society—relates his experience and his impressions as to the value of ergot under the particular circumstances we are now considering, and he states he had been in the habit of administering *secale cornutum* "immediately upon the birth of the child, and before hæmorrhage takes place." On analysing his cases, I find that in five, out of the seven which he details, the medicine was actually given some twenty or thirty minutes before the expulsion of the fœtal head; so that it is fair to assume his more usual practice was not to wait for the child to be born before administering the prophylactic. His concluding remarks are so apposite that I must be allowed to borrow them:—"The cases I have adduced are, I think, sufficient to show the value of the practice I would wish to recommend. They are, in my mind, convincing proofs of the efficacy of the *secale cornutum* as a means of preventing one of the most formidable evils we encounter in obstetric practice. Indeed, my confidence in it is so great that I now fearlessly undertake the management of cases which, without such aid, we all dread to encounter. It appears to me," he continues, "that the ergot prevents uterine hæmorrhage after delivery in two ways; first, by inducing a complete and permanent contraction of the uterine fibres, thus causing constriction of the blood vessels; and, secondly, by diminishing the force and frequency of the heart's action, and thus rendering the effusion of blood less impetuous and more easily restrained. In all cases where this medicine is given in a full dose, it has the effect of moderating the action of the heart." This lowering effect of ergot upon the pulse had previously been noticed by Dr. Hardy, in the paper from which I have already quoted, and no doubt it contributes, as Dr. Beatty points out, to the hæmostatic action of ergot on the uterus. In these cases of

\* That the action of ergot on the fœtus is mechanical and not physiological, I have endeavored to show in a paper read before this Society, and published in *Dub. Quar. Jour.*, May, 1865, p. 484.

† *Dublin Quarterly Journal*, May, 1845.