

OBSTETRICS.

THE INJECTION OF PERCHLORIDE OF IRON.

By Dr. ROBERT BARNES.

In discussing the action of powerful styptic injections in arresting flooding after labour, the conditions under which the practice I have recommended is indicated have not always been accurately appreciated. The great agent, of course, in stopping hemorrhage, is the constriction of the uterine vessels by the muscular wall in which these vessels run. All the ordinary means of arresting hemorrhage are aimed at producing muscular contraction. But muscular contraction depends on nervous power. Thus cold, grasping the uterus, introducing the hand, galvanism, all depend for their efficacy upon the spinal cord being able to respond to the peripheral call. When, therefore, these means prove sufficient, the inference is generally warranted that the case, although serious, is not desperate. The condition is very different when the excito-motor function is suspended; when neither by peripheral excitation, nor by centric stimulus, the nerve-force can be drawn or sent from the spinal cord to the uterus in sufficient intensity to cause contraction. At this point, unless the bleeding is arrested by syncope, or by temporary enfeeblement of the circulation, the patient is in the most imminent danger of death. The slightest shock or disturbance will extinguish the flickering spark of life. Under such circumstances I have known death follow, to all appearance immediately caused by the injection of cold water, or passing the hand into the uterus. If, instead of cold water we inject a solution of perchloride of iron, the same catastrophe may ensue. Is it more likely to ensue? Very careful observations are required before this question can be answered in the affirmative. People are apt to think that cold water is so simple a thing that it cannot do any harm. But if it cannot do any harm, is it not probable that it is, under the conditions discussed, equally powerless to do any good? Harmless remedies, as a rule, fail in great emergencies. Now, cold water fails not because it is harmless, for the shock and depression which it causes are extremely dangerous; but it fails because, nervous power being exhausted, it cannot excite uterine contraction, and it has no other virtue in arresting hemorrhage.

Here, then, it is that styptics come to the rescue. The emergency is extreme, and would be desperate but for the new power invoked. If blood be still running, it is instantly seized at the mouths of the vessels, which become sealed up by coagula. It also constricts the inner surface of the uterus, and thus further closes the vessels. The system then has time and opportunity to rally, and by and by the contractive power returns. In estimating the relative value, then, of cold water and perchloride of iron, we must reflect that iron acts and saves life when water is inert or injurious. If occasionally death follows, and is apparently accelerated by, the iron injection, we have, on the other hand, to remember that it was used as a last resource, when the patient was likely to die even if nothing were done

and that even under these unpromising conditions many lives, to all appearance, doomed have been saved.

The great lesson to learn is to use the styptic in time; that is, before the vital power has sunk too low. It was not to be expected that a remedy powerful enough to save under the last extremity should be altogether free from danger. But I have seen so many women bleed to death, and have seen so many saved by the timely use of the iron injection, that I am much more afraid of the bleeding than of the remedy.

In some cases, there is reason to believe that the iron enters the uterine vessels. I have known intense pain in the uterus follow immediately on the injection. How is this explained? If blood were present in the vessels, it is a chemical necessity that contact with the iron would cause coagulation. I infer, then, that there is a certain amount of suction-action induced by the relaxed state of the uterus, and by the lateral or semiprone position of the patient. I would therefore urge that the patient be placed on her back, and that the uterus be grasped firmly between the two hands of an assistant during the injection.

In some cases, it is easy to carry a swab or sponge soaked in the iron solution into the uterus. In this way probably some of the risk attaching to injection is avoided. The persulphate of iron, which is preferred by our American brethren, may have its advantages. Its styptic force is probably greater. It may be used in the form of one part of the liquor ferri persulphatis of the British Pharmacopoeia to six or eight of water. The proper strength of the perchloride solution is one in ten.

ERGOT OF RYE IN RELATION TO RETENTION OF URINE.

In No. 23 of the *Centralblatt*, Dr. Wernich calls attention to a physiological circumstance which should be borne in mind in the administration of the ergot of rye. It has long been remarked in the autopsies of persons dying after poisoning by this substance that the bladder is so constantly found distended that this must be regarded, not as an accidental circumstance, but as due to a causal connection. The explanation, indeed, is not difficult, as the action of ergot on the sphincter of the bladder has often been resorted to in therapeutics—e.g., in enuresis, incontinence of the aged, paraplegia, etc. Moreover, in a numerous series of experiments performed with ergot for other purposes, the author found in numerous instances that although the bladder was emptied before the application of ergotin, yet very soon after this had been accomplished the organ was found enormously full. It is evident, therefore, that some other factor must have come into operation besides the spasmodic action of the sphincter excited by the ergot.

However, Dr. Wernich does not attempt the explanation of the phenomenon on this occasion, confining himself to the obstetrical point of view, and in this giving a useful practical hint. He refers to two cases in which ergot had been administered on account of cessation of pain, but in

which effective pains seem to have been kept off by reason of a distended bladder; and he wishes accoucheurs to bear in mind not only that the condition of the bladder should be ascertained prior to any manipulation being undertaken, but also that when secale has been administered a long time without effect they should have recourse to the catheter. It is, he says, highly probable that a large portion of the instances of the failure of ergot is not due to the bad condition of the drug, or its erroneous employment, but to the obstruction to delivery caused by the coexisting distension of the bladder.—*Med. Times and Gazette*.

SHORT NOTES.

ACTEA RACEMOSA.

Actea (according to Mr. J. J. H. Bartlett, of Kensington,) is a most useful drug in the treatment of chronic and sub-acute rheumatism and lumbago. Out of fourteen cases of lumbago eleven were cured, and out of fifteen cases of chronic and sub-acute rheumatism eleven were cured. The actea should be given in doses of half a drachm of the tincture three times a day. In the case of two children the dose was ten and twenty minims, respectively increased to twenty and thirty minims. Giddiness, headache, nausea, and irregular pulse are the symptoms produced by an overdose. The tincture should be freshly prepared.

THE PROCESS OF TAKING COLD.

Daily experience teaches the medical practitioner that persons who guard most anxiously against every possible chance of taking cold are most frequently its victims. Geiger in an article on the mortality of children at Würzburg, Germany, translated by Ch. Rauschenberg, M.D., Atlanta, Ga., shows that diseases of the respiratory organs cause, in the first year of life, the death of relatively many more legitimate than illegitimate children; while the contrary is true of diseases of nutrition, proving that the too great care of fond mothers to their offspring frequently produces what it is intended to prevent.

MODIFICATION OF ACUPRESSURE.

The great objection to acupressure (says Dr. Will, of Aberdeen,) is the disturbance of the tissues caused by the "corkscrew" of wire during its withdrawal, and the consequent danger of disturbing the clot. This difficulty may be overcome by using silk or catgut instead of wire. The needle is to be passed under the vessel, and its point made to emerge beyond it. A double ligature is then to be passed under the point, then brought backwards and tied in the usual surgical under, but a little to one side of the proximal end of the pin. Of the four ends of the ligature three should be cut off neatly, leaving the fourth. Two loops may seem unnecessary, but it is not so, for, when only one is used, it takes such a firm hold of the tissue about the vessel that, during its removal, the safety of the clot is endangered. To withdraw: first remove the pin by a gentle twisting motion; after which, the knot being liberated, the ligature can be readily pulled out.