

## ON THE OBSTETRIC USE OF ERGOT OF RYE.

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IN the brief remarks which I am about to submit, on the employment of Ergot of Rye in Parturition, I propose to offer the conclusions to which experience has led me, and do not profess to furnish either novel facts, or exact deductions from numerical details. Having been busily occupied in this department of practice for the last sixteen years, during which time I have personally delivered nearly 3,000 women, I have had ample opportunities for testing the maxims of my old preceptor, Dr. John Thatcher, of Edinburgh, on this point, and have never found them fail me. So little title to originality have I to boast of, that it would not have occurred to me to write at all on the subject, did not the cases which I read in the journals, and those which I occasionally see, convince me that many practitioners hold very loose opinions on the properties of the remedy, expecting from it more than it can perform, and exhibiting it when it can be potent only for evil. If a labour prove tedious, no matter in what stage of its progress, no matter what the cause of delay—and in spite even of faulty presentation—ergot appears by some to be given. In fact, *this* appears to be their only rule:—if labour is not terminated in half an hour after their arrival, a dose of ergot is to be administered. I have known it given,—by those who are well educated, and in other departments skilful,—in primiparæ, long before dilatation of the os uteri; and that even when the breech has presented. And I have known it to be given, with the head above the brim of the pelvis, the latter being deformed so much as to have made craniotomy necessary in former labours. Others, again, not knowing its proper adaptation, have denied it all power. Others, judging from the mischief arising from its improper administration, decline its use altogether, from a fear of its ill effects. But while, given wrongly, the consequences to mother and child may be most disastrous; if given rightly, it will often render operations with the forceps, or turning, unnecessary; and in some descriptions of hæmorrhage, may be the means of averting even death itself.

A consideration of the action of ergot, will render distinct and evident its nature as an obstetric instrument; and thus its powers, uses, and unsuitabilities, may be at once deduced. We may thus, also, see how and why it has occasionally been productive of ill effects on the mother or the child. I am not competent to enlarge on the minute physiological theory of its action. I speak as a man who professes medicine only as a practitioner; not, however, meaning hereby to undervalue a branch of science of which he confesses himself not a master.

The effect, then, of ergot of rye, given during labour, is to produce, in about twenty minutes after its administration, *propulsive* contraction of the uterus; differing from the natural expulsive pains in this re-

spect, that the intervals of ease will be either altogether absent, or very incomplete. Occasionally, if there is but little opposition, it will be a very powerful and continuous pain; or, on the other hand, it will be a quiet, tonic, slow, and steady propulsion, causing little or no expression of suffering, and lasting some time.

We see, then, immediately and exactly, the sort of case to which it is suited, and the sort of case in which it is needed. We see also how, when it is improperly administered, the serious consequences which have been ascribed to its use may really ensue. They must be, in a word, cases in which *a few strong expulsive pains* are required, and will be safe. The required pains must be *few*; for many ergotic pains, not having intervals, might rupture the uterus, or asphyxiate the child. It must be a case where *strong* expulsion is not undesirable, for the contractions resulting from ergot may be very strong.

In the first place, then, there must be no disproportion between the maternal pelvis and the foetal head, for here a few pains and a short time cannot suffice. Therefore ergot is not to be used in any difficult case. It must not be given before the os uteri is well dilated. It cannot, therefore, be suitable in the *early* stages of labour at all; far less, when the very cause of delay resides in rigidity of the os. It must not be given unless the vagina and perineum are soft, moist, and well relaxed:—it can, then, be very rarely safe in primiparæ, especially if advanced in life. It cannot be applicable, unless the presentation is entirely favourable.

These rules appear so self-evident as to make it idle to repeat them. Yet I have seen them grossly transgressed; and I have often read in the journals, cases in which the authors narrate the exhibition of ergot under such circumstances as are deprecated above, without appearing at all aware of any impropriety in their treatment. If it is given in a case rendered tedious by the difficulty, nature will sometimes, fortunately, prove insensible to the action of the drug. But if not, the uterus will be roused to a violence of action, which will in all probability end in rupture: or if it should by fearful efforts accomplish delivery, the convulsive rigors which follow are tokens of the imminent risk which has been run.

When there is rigidity of the os uteri and soft parts, results so fatal may not occur; but the patient will become exhausted by misplaced and ineffectual attempts at expulsion; the rigidity and dryness will increase; a feverish state will be produced; and, after the subsidence of ergotic pain, natural pains will be slow in returning. And such are cases in which I have seen ergot fatal to children, whose vitality has not been proof against the long-continued and unremitting compression.

Probably none will be found so mad as to administer ergot in presentation of the upper extremity. But neither is it applicable to a foot or breech presentation; for here it is often only after the slow, gradual, and dilating passage of the hips, that we can hope to extricate the head sufficiently speedily to save the child. Even where the *Acad* is the presenting part, malposition will often forbid the use of ergot; as that would frequently be an infringement of the maxim,—that *few* pains must be requisite for the completion of labour.

I must also confirm that which Dr. Hardy, of Dublin, in an interesting and important paper on this subject, has stated; that ergot will sometimes produce very serious depression of the pulse, where the patient has already been weakened by very great hæmorrhage, or previous profuse diarrhœa.

After what I have said, few words will suffice for pointing out in what cases ergot is a suitable means. And if from those in which it may be given safely, we subtract those in which it is not required, very few will remain. I myself so seldom require it, that I have never carried any about with me. Doubtless, there are many cases where no possible harm could arise from its administration, and where the suspense of the patient, and the time of the accoucheur, may be unobjectionably spared by employing it; but my own custom on such occasions is, to submit to the tediousness and inconvenience, and exhibit simply "tincture of time". Herein, every one must act as he thinks right.

But when, in a woman who has already been a mother, the head has rested on the perinæum for two or three hours, waiting only for the final extruding pain, it is folly to withhold what will then be so speedy, so safe, and so welcome an interference. And I have known that, occasionally, in elderly women, where only one pain is wanted, that one pain *will* not come; and either ergot must be given, or the forceps at last applied.

In cases where, in the last stage of labour, the expulsive pains are feeble and infrequent, serious hæmorrhage will very often follow; and this untoward sequence is almost always to be prevented by the exhibition of ergot, in the manner proposed by Dewees, and so ably expounded by Dr. Beatty, of Dublin.

But the case in which ergot is most strikingly beneficial, and I may say most necessary, is that of partial presentation of the placenta. Here, until the os uteri is considerably dilated, the hæmorrhage can only be stayed by the plug, which will do so effectually. But when the os is tolerably open, thin, and soft, the yielding surface of the membranes will not afford a counter-pressure to the plug, which is then no longer efficient. They may also give way without our knowledge, and then we shall have internal hæmorrhage. If we now rupture the membranes, the descent of the head will so compress the lacerated vessels, as to place the patient in safety. But we cannot depend upon the continuance of sufficient contraction of the uterus to keep up this compression; and the intervals of pain will permit a considerable draining. Here, then, if the symptoms are urgent, there would be no remedy but turning; a measure painful and exhausting to the mother, hazardous to the child, and perhaps difficult to the operator. But ergot supplies, as I can aver, an admirable and a competent aid. Let a full dose be given, and the membranes ruptured, and the happy results will be, a cessation of hæmorrhage and a speedy delivery; or, at all events, such a degree of tonic contraction of the uterus will ensue, as will keep the patient out of danger.

Dr. Ramsbotham recommends the administration of ergot as a preliminary step in the induction of premature labour. In the few cases of this kind which I have treated, I have derived no assistance from

it; and I do not think that the non-parturient womb is very susceptible of its stimulus. Nor can I say that I have found the ergot very effective, when given after delivery, in stonic hæmorrhage; although I willingly defer to the contrary opinion held by many distinguished accoucheurs.

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## ON THE RELATIONS OF UTERINE TO CONSTITUTIONAL DISORDER.

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Of those who have devoted themselves to the study and investigation of morbid phenomena, we may recognize two principal classes. The one, looking more especially to the alterations of structure which are occasioned by disease, endeavour to deduce from them and the study of their specific characters, anatomical, chemical, and physical, the laws which regulate their development, and the principles which should guide us in their prevention and cure. The other, looking beyond the mere structural changes themselves, seek to determine their mode of origin and formation by an examination of their causes, the circumstances by which they have been preceded, and the order and sequence of morbid actions. Each of these methods of inquiry has its advantages, whilst both are conducive to the extension of medical science; and while it would be invidious to draw any parallel between their respective merits, we may at least admit the importance of that which, by teaching us the incipient phenomena of disease, enables us to anticipate and avert those ulterior changes of structure which, when met with, are but little amenable to the resources of our art.

But in such investigations, it is necessary to carry our inquiries beyond those limits which custom or system has arbitrarily assigned to particular diseases. It is necessary to study closely the first deviations from health; to trace morbid actions from their more determinate to their more primitive conditions; and to note the order and succession of changes by which constitutional disorder becomes localised, and local disorder passes into organic disease. For it is too evident, that morbid action may have commenced before sensibility warns us of its existence, and that the mere perception of pain or uneasiness, or, indeed, of any sensible deviation from what is normal in a part, cannot be regarded as the commencement of disease. This may have begun long antecedently; and inquiry in such cases will often show that it had been attended by appropriate symptoms, which, if carefully sought