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ANAESTHETICS IN MIDWIFERY PRACTICE.

The advantages of the use of anaesthetics in midwifery practice were appreciated very soon after their introduction into surgical practice.

Ether was first used by Professor Simpson of Edinburgh nearly fifty years ago, to produce unconsciousness during the delivery of women. After having used this agent in a variety of cases, he gave it as his opinion that, besides other advantages, it did not diminish the strength or the regularity of the uterine contractions. This in his own words is "the one great fact upon which the whole practice of anaesthesia is founded".

The practice of administering ether to child-bearing women, especially in protracted or difficult cases, soon spread over the country, and accoucheurs on the continent also experimented with it. The result was that discussions arose between those who were in favour of continuing its use and those who objected to it. On the side of those who objected to its use, in cases of natural labour, are to be found the names of practitioners of high standing in the professional world, who cannot be charged with having brought forth their objections on other than conscientious grounds. Chief among the objections were (a) that the pain of labour was

physiological and was necessary to the recovery of the mother, (b) that the use of an anaesthetic was immoral, (c) that by taking away the consciousness of the woman they were interfering with nature, and (d) that by so doing they lessened the maternal instinct. Professor Simpson, who led those in favour of the anaesthetic, was vigorous in repelling the objections, and from medical history, gave instances of opposition to other innovations, in proof of his statements.

During the early period of the above mentioned controversy Professor Simpson was still pushing on his experiments, with the desire of finding an anaesthetic which would not be so objectionable as ether. The large quantity of ether required, its irritating effect on the air passages, and its offensive odour, were objections which he wished to get rid of.

After experimenting for a few months with a number of agents, he found that chloroform was free from all those objections. From that time chloroform was chiefly used as the anaesthetic for midwifery practice though ether continued to have its supporters, and many used a combination of chloroform and ether.

It has been demonstrated that anaesthetics are in their action regularly progressive, affecting first the lower portions of the nervous system and gradually rising to the higher. Not that there are any distinct stages in the process, it being continuous, but that the anaesthesia may be carried only so far as is necessary for a given case. Hence the

special advantage of anaesthetics in obstetrics. It may be that the accoucheur wishes only to annul the pains of labour, when it will be necessary to administer sufficient of the anaesthetic to do so, the patient retaining her consciousness. On the other hand as in the case of obstetrical operation or manipulation, it may be necessary to produce complete unconsciousness.

Chloroform having been recognised as superior to ether, in that it was more rapid in its action, and more pleasant in its after effects, besides requiring a smaller quantity to produce anaesthesia, was quickly acknowledged as the anaesthetic for use in midwifery practice. In my own practice during the last twelve years, in attending over two thousand midwifery cases I have very often required to use an anaesthetic, chloroform being always employed. So that the following part of this thesis will apply to chloroform specially.

In these days of advanced civilization, when everything is done as quickly as possible, and with the least amount of pain or trouble , it is not to be wondered at that lying- in-women should wish to be delivered without pain. It may be that on one occasion, e.g. a high forceps case, a woman had chloroform administered, and realising that she was delivered of her child without pain, she desires at her subsequent confinements to have the same immunity. The question here arises should she have the anaestetic at all her confinements? or to put it more broadly, in what cases should chloroform be administered?.

Women do not all bear pain alike. The women of nervous temperament, who may have been enervated by luxury and refinement, may suffer more acutely than those who have well developed muscles, and are of a phlegmatic temperament. Hence the necessity for the use of chloroform must be decided by the accoucheur, when the woman desires it merely for the relief of pain. I have frequently when engaging to attend at confinement been asked to bring the chloroform; and when called to the labour the patient would at once begin her solicitations for the anaesthetic. My usual practice is to administer the chloroform in those cases when the suffering is such as to disturb the nervous system of the woman and so probably to retard her recovery. But the woman may be bravely suffering and not complaining, though her pains are severe, and then it is the duty of her attendant to note the character of the pains, if they are of the normal type, and making towards the completion of her labour. If the pains are spasmodic or irregular, then the early administration of chloroform, sufficient to produce analgesia, will hasten the labour, and the woman will make a better recovery than if allowed to suffer pains which in time would wear out her strength, and which might even make her case one for operative interference. It is in cases such as these that it becomes a difficult and delicate task to administer chloroform, when you want to prevent pain to the patient, and yet allow her to retain her consciousness during nearly the whole duration of labour. It is however quite good practice, and safe to give

chloroform in normal labour to relieve pain. Again one may be called to a case and have considerable difficulty in arriving at a correct diagnosis of the presentation. Or the question may be as to whether or not the woman is in labour. It may be necessary to distinguish between a breech and a face presentation, when it is often difficult, or impossible, to reach the presenting part with the finger. In such a case chloroform is of great benefit, as the patient can be anaesthetised and the hand inserted into the vagina, when the correct presentation will be made out, and the case treated as it requires.

But it is in cases which require special assistance from the accoucheur, e.g. in manipulations required in the process of turning; also in the more painful, and often more prolonged assistance required in many cases where one or more instruments may be employed; that the special necessity for an anaesthetic arises. In these cases the anaesthetic is administered in sufficient quantity to produce complete unconsciousness, which condition is maintained during the whole time required by the operation. In fact the administration of an anaesthetic in these cases, is exactly similar to its administration in surgical operations.

Several varieties of apparatus have been employed in the administration of chloroform all of them having for their aim the safety of the patient. To attain that object the different plans agree in trying, according to the ideas of

the inventor, to ensure free access of air to the patients mouth, and in being able to control the supply of the chloroform. When one rquires to give chloroform without having skilled assistance, the metal apparatus for fitting over mouth and nose covered with lint or flannel is useful. A friend of the patient supplied with a suitable vial, may hold on the mouthpiece and add drops of chloroform as requested. As a general rule I use the, by some, much condemned, but always convenient, towel. Still by whatever means one administers the anaesthetic, there are certain details which a careful practitioner should give attention to.

In a general practice, such as mine is, the physician may require on one occasion to give chloroform in a small ill-ventilated room, while at another time his patient is in a large airy apartment. This makes a very great difference in the administration of chloroform. In a small room where the temperature is higher than it should be, greater care has to be taken, as with the higher temperature much less of the chloroform acts on the patient

In Obsteric practice it is not always possible to be certain that the patient has abstained from food for some hours before inhaling the anaesthetic. But it is always more comfortable for the patient, and certainly more pleasant for the accoucheur, if such is the case. There is more certainty of vomiting if there is a loaded stomach. Chloroform should never be given without first ascertaining if

the patient has artificial teeth, and if so, having them removed.

Although as a rule a woman has no tight-fitting garments on when in labour, still it is well that the attendant should see that all bands about the body and neck are loosened.

The too common practice of giving some form of alchohol to the lying-in-woman, is in my experience a very great source of trouble to the attendant. It has been my regular practice in all cases, where there was a probability of chloroform being required, to insist on the total prohibition of alchohol to the patient. Frequently when in opposition to my orders, the patient has been given "just a teaspoonful", as the friends would say, of whisky or brandy, I have found the patient more troublesome, inclined to be talkative, and more difficult to anaesthetise.

I have not seen any bad effects from one or two doses of Liquor Ergotae given to the patient before the necessity for chloroform arose. But it is not so with opium. I have ordered an opium pill early in the labour, when I considered that the action of the sedative would soften the os, making it more dilatable, and so facilitate labour. The case not progressing satisfactorily, it was decided to give chloroform and deliver with the forceps. In these cases I have found the patient violent and more difficult to anaesthetise.

As to the position of the patient while the chloroform is being administered. I have always adhered to the ordinary obstetric

position viz. the patient lying on her left side. I believe that some accoucheurs recommend that the woman lie on ~~on~~ her back, but I am of opinion that - in midwifery practice - it is safer to have the woman on her side.

The quantity of chloroform used must vary according to the case. If it is used only during the last few pains, and merely to relieve the pain, then one or two drachms will be sufficient. But if you require to begin early in the case, you may, with safety, use it for several hours, and yet never have the patient quite unconscious, though you may use one or two ounces.

The question as to when one should give chloroform might now be raised. At what stage of labour can chloroform be given?.

My practice is to give it in any of the three stages, if required. As a general rule one does not give it in the first stage. But if it were prolonged, with the patient getting wearied and the vagina dry, a small quantity often induces a short sleep, from which the woman awakens refreshed,the vagina is moistened, and thus the labour is shortened Nor would one give chloroform in a normal third stage, when the child is born and the severe pains of labour are past, except in cases of retained placenta, from the various causes, and certainly when adhesions are present, necessitating the introduction of the hand, when the advantage of chloroform is manifest.

But it is in the second stage of labour, that chloroform is most frequently desired and given. When the woman has strong muscular contractions, causing her to cry out so much as to disturb the whole neighbourhood, the quietness induced by chloroform makes everyone near her more composed, and the patient herself takes courage, and the labour goes on pleasantly. Or the second stage may be prolonged, though not violent, then the vagina may become dry, thus making it more difficult for the head to progress. In this case also, a few inhalations of chloroform gives rest to the voluntary muscles and maybe a short sleep to the patient, after which the vagina becomes moistened and the labour progresses more rapidly. It may be that the perineum is rigid and the pains strong, when there would be considerable delay and one would give the chloroform freely, to relax the parts and so facilitate labour.

In many cases of what one would call normal labour, when the head is low down, the contents of the rectum may be pressed out, and so agitate the patient as to retard the labour, and then also I would give chloroform, to annul her senses, and so permit the labour to progress. So that, to recapitulate, one should not hesitate to give chloroform at any stage of labour, when by so doing, he can give comfort to the patient and facilitate her delivery.

At this stage I may mention, with greater detail, the various causes, other than normal, when it is really a necessity to use an anaesthetic. I have mentioned its use to relax the perineum, in a normal labour. But there may be so much rigidity, that, to avoid a very serious rupture of that part, it may be actually a necessity.

It is also stated that if the labour is severe and prolonged, chloroform may be used to relieve the pain of the woman. But the relief of the pains might be a secondary object with the accoucheur, a greater viz. the prevention of post-partum haemorrhage, due to uterine inertia, being uppermost in his mind. I am aware some physicians are of opinion that there is more danger of post-partum haemorrhage after the use of chloroform, than in cases where it is not administered. Still I am convinced that when chloroform has been given in the second stage of severe labour, there is less risk of uterine inertia, and therefore of post-partum haemorrhage, than if the patient had been allowed to struggle on to the end of her labour without it.

It is however, in cases where instrumental assistance is required, and in eclampsia, that chloroform is not merely an aid, but is actually a necessity to the woman's recovery. This has been demonstrated to me on several occasions, but I will give the following three cases which occured in my practice during the past few months.

(1) Mrs D. engaged me to attend her at her second confinement which was not expected before the end of May. On the 20th. of that month her husband was wakened out of his sleep and found his wife "in a fit". He immediately called in her sister, who resided in the same house, and then came for me. I found the woman was unconscious and in severe convulsions. On examining per vaginum I found the os fairly well dilated and the head presenting. I immediately administered chloroform and delivered with the forceps a living male child. It was then ascertained that there was a second child. Thinking that the convulsions might cease I stopped the chloroform, but they began again whenever the influence of the anaesthetic was removed. I continued giving her sufficient chloroform to keep her quiet, stopping at intervals and allowing her to be without it for a short time, but still the convulsions continued necessitating its renewal. This continued for two and a half hours, when fortunately, the head of the child presenting I again applied the forceps and delivered another living male child. The convulsions ceased for some hours after the second delivery, though she had a few severe spasms during the day and did not quite recover consciousness till the following day. With appropriate treatment she made a good recovery.

Another case, though occuring in a woman not quite six months pregnant, was convincing to me of the special benefit of chloroform in such cases.

(2) Mrs T. , primpari, while getting out of bed on the morning of April 14th. 1894 was seized with giddiness and "appeared to be stupid and twisting her mouth". When I saw her she was able to tell me of her condition, and that she had not felt movement for some time. She had a convulsion while I was making the necessary examination. I used pilocarpin hypodermically, gave appropriate instructions and left her for a few hours. Calling again during the day I found her unconscious and was informed she had had several seizures in the interval. I administered chloroform whenever the spasms began, keeping her under its influence as much as possible till eleven o'clock p.m., when signs of labour began which I encouraged and delivered her of a macerated foetus. The convulsions then ceased and the woman made a fairly good recovery.

I may be allowed to mention here - though apart from the question of the advantage of chloroform - that, after the convulsions ceased, the breathing became very rapid, and the temperature reached hyperpyrexia. I believed the woman was going to die, but thought to try the efficacy of repeated applicatins of cold wet cloths. Having procured a large piece of flannel, and dipped it in cold water, I applied it from the top of the sternum down over the chest and abdomen. The flannel was redipped in the cold water every few minutes and its application continued for an hour, by which time the

breathing was nearly normal, and the temperature reduced to 101°.

The only other case which I will record as a proof of the special efficacy of chloroform is one which required prolonged instrumental assistance.

(3) Mrs R., primpari, sent for me early on the morning of August 21st. 1894. The os was fairly well dilated, the presentation was cranial, in the third position, and the pains were regular. So though I did not expect the completion of the labour for some hours I remained with her. After the competion of the first stage, when I considered the rate of progress unusually slow, I made a more careful examination under chloroform, I then found that the head was arrested at the brim due to a slight lessening of the conjugate diameter of the pelvis. I decided to leave the case to nature for a short time longer, but after a time the patient began to weary, and, as the pains were severe and still no progress, I decided to apply the long forceps, which necessitated a second administration of chloroform. To my disappointment I failed to deliver with the forceps. Realising the gravity of the case I sent for another practitioner. There was an unavoidable delay in securing the attendance of the medical friend, during which time the patient regained consciousness. On his arrival she was again anaesthetised and a careful examination made, when it was decided, as the deformity was slight, to again apply the

forceps as being the best means for the delivery. My friend also failed to deliver with the forceps. As we considered it impossible to turn at this stage, it was decided to perform craniotomy. This necessitated a further delay as the instruments were not at hand. The instruments having been procured the woman was for the fourth time put under the influence of chloroform, the perforator used, and an attempt made to deliver with the craniotomy forceps. They also failed to dislodge the head, and, as there was now more room, turning was resorted to and the woman delivered of a large child. She made a very good recovery.

My object in detailing these cases in this thesis is to emphasise, that without the aid of chloroform, the amount of pain and fatigue which these women had to suffer, would in all probability have resulted in their death.

I need not enumerate the many varieties of instrumental labour where the use of chloroform is a necessity, as one would seldom use instruments, except in the very simplest cases, without its aid. Still I would like, before closing, to mention one kind of case where, in multipari, I think chloroform and forceps can, and often do, save the life of the child. I refer to ~~to~~ cases where the cord is prolapsed.

Very early in my practice here I was called out to the country to deliver a woman who had been in labour for several hours. A "handy"woman" in the district had charge of the case and when too late sent into town for assistance. I found the head well down and a fairly large loop of cord

protruding from the vagina. This it was which had frightened the "handy woman". There was no pulsation and as the pains had ceased, there was nothing better than delivery with the forceps. This was easily done and a dead child delivered. I was much impressed with the probable benefit which would have resulted if early delivery, under chloroform, had been possible in this case.

Curiously I had three cases of prolapse of the cord within a few weeks after the above case. In each of these, having diagnosed the presentation early and administered chloroform a living child was delivered with forceps. Without chloroform the necessary delay in attempting, and probably failing, to replace the cord would have added greatly to the child's danger in each case.

No mention is made in the foregoing pages of the use of chloroform in cases of precipitate labour and in puerperal mania, as I have not sufficient experience of such cases as to warrant me treating of them in detail. Nor have I entered into the question of whether or not the woman requiring chloroform is the subject of organic disease, say of heart or lungs. My contention in this thesis is that in all cases where an anaesthetic is required chloroform can safely be given by an intelligent physician.

Finally. to sum up the question of the administration of chloroform in midwifery practice, (1) The anaesthetic may be used at any stage of normal labour when the physician

considers that it will benefit the patient, he remembering always the power of the agent he employs and giving every attention to the details necessary to its safe administration. (2) It is a necessity in most cases of turning, in all cases requiring operative assistance and in eclampsia. And I am convinced that the practitioner who uses chloroform freely, with knowledge of its power, will be more successful in his midwifery practice than he who uses it sparingly.