Observations

ON THE

CÆSAREAN SECTION AND ON OTHER OBSTETRIC OPERATIONS.

BY

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CHAPTER IV.

On the Performance of the Cæsarean Section, etc.

THE process adopted by Nature in some of those cases of labour in which she cannot overcome the obstacle which prevents the passage of the infant through the pelvis, is, in the first instance, the yielding of the uterine tissue, thereby making an opening for its escape. Afterwards, if the constitutional powers prove equal to the entire process, an incase-ment of the foetus is effected by the effusion of lymph. And, after a time, a pointing in some part of the abdominal parietes shows itself, which is soon followed by ulceration, and part after part of the infant passes through the opening, until the whole contents of the cyst are discharged. This is a very slow and hazardous process.

In adopting the Cæsarean section, we in some measure imitate Nature in her attempt to remove the infant, although by a much more safe and an expeditious plan.

This operation ought not to be made one of display. There should only be a very few persons present; and the greatest quietude should be afforded to the patient. Every cause likely in any way to create unpleasant emotional feeling should be most carefully avoided. These rules were strictly observed in the two successful cases in which I was engaged. It is of the first importance, when possible, to adopt all such measures as will prepare the patient to undergo this operation, by improving the general health.

The bowels should be emptied by a large quantity of warm water thrown into the rectum and colon, by an enema-apparatus with a long flexible tube (like the one used to enter the stomach), so that its extremity can reach beyond the great projection of the sacrum.

The bladder must also be emptied by a catheter, equal in length to that used for the male. This organ is forced downwards and forwards, and lies under the deflected uterus, whereby its cervix is lengthened and compressed upon the pubes. This altered position of the bladder is particularly to be observed during the latter month of pregnancy, in cases of pelvic distortion from mollities ossium. Frequent examinations *per vaginam* have been already shown to be extremely injurious; so that this practice should not be allowed. In an exploration made to ascertain the measurement of a distorted pelvis, the obstetrician is compelled to pass his hand completely, and as far as possible, into the vagina. Anxious to ascertain the state of the os uteri, the presentation of the infant, and the exact available space in the

pelvis, he prolongs the operation, and often repeats it. And when consultations are numerous (as is too common) in these cases, serious mischief is inflicted on the pelvic organs and tissue. By one effectual examination, every necessary information may be obtained. The interest of the patient is best secured by having only a limited number (say two persons) in consultation.

The operation should be performed on the bed; so that the patient may be kept as quiet as possible afterwards. In some of the cases in which the woman was removed to a table, some untoward circumstance happened.

The temperature of the room should be regulated, and a genial warmth of the atmosphere maintained.

The uterus projects more or less forwards; and when the pelvic distortion is caused by mollities ossium, this organ assumes the retort shape. Its projection is so great, that its normal anterior surface rests upon the thighs of the patient when she sits, so that the fundus necessarily stands most foremost. Before the incision is made, it is of the utmost consequence to raise the deflected uterus up; or else the fundal tissue, which abounds with large anastomosing vessels, must unavoidably be divided. Neglect of this caution has, no doubt, led to the hæmorrhage which happened in some of the cases. A division of the structure of the upper part of the fundus of the uterus must certainly interfere with the regular or efficient contraction of this organ, and thereby produce a gaping character of the wound.

When we contemplate the mischievous effects of protracted labour, and review the unfavourable condition in which most of the patients have been brought by unwisely procrastinating the operation, we must at once be convinced how important it is to perform it early. The sooner the better it is had recourse to after it is determined upon, either as one of election or one of necessity.

When labour is rendered difficult by great distortion of the pelvis, or by large exostoses, or by large tumours in its cavity, some of those natural organic changes are not to be found, which would otherwise guide us, and enable us to judge of its commencement and progress. To wait, then, in such cases as these for the dilatation of the os uteri is not only a great mistake, but also a very great evil; for, in most of them, this part of the uterus cannot be touched, and, in general, very little dilatation of it does or can take place.

The dangers of delay, on expectant grounds like these, which so frequently happened in the registered cases, ought to guard us against waiting for those indications which cannot possibly be discovered, and induce us to operate early. As soon as the labour is established, and before or immediately after the membranes are ruptured, is the most favourable time to proceed. Great advantage accrues from adopting this plan; for the length of the uterine incision would relatively diminish in size, equal to the diminution which takes place by the contraction of the uterus. Another great advantage arising from this course is, that the danger of protraction would altogether be avoided. It is a well known fact, that little risk comparatively occurs before the waters are discharged.

Before the incision is made, the location of the placenta should, if possible, be ascertained, in order

to avoid its being wounded. In the 77 cases, it is reported as follows. In 29 it was connected to the fore part of the uterus; of this number, in 2 it was placed towards the fundus; in 13 it was cut upon. In 10 cases, it was adherent on or towards the back part of the uterus. In 31 cases, the position of it is not alluded to; and, therefore, it is to be presumed it was posteriorly placed. In 5 cases, it occupied the fundus; in 1 case, it was found near the left Fallopian tube; and in one case, it was attached (placenta prævia) over the os uteri.

This minute inquiry as to the precise fixture of the placenta has not been made merely for the purpose of suggesting rules of caution which ought to be observed before making the incision; but, also, of proving that this organ has not a definite position assigned to it.

It is, then, of the greatest importance to make the incision so as to avoid, if possible, cutting upon the placenta; as considerable danger may accrue from so doing.

The stethoscope will nearly always enable us to avoid these hazards. By it we derive positive information of the infant's life, by hearing distinctly the pulsations of its heart; and it affords us negative evidence of the infant's death, when no cardiac sounds are perceived through it. The audibility of the "placental *soufflet*" directs us to investigate the quarter from whence the murmurs proceed; and by attention, we may nearly always assure ourselves in what vicinity of the uterus the placenta is fixed. If this sound is not heard, we have a right to conclude that this organ is not within the reach of the knife if the infant be still alive. If it be dead, no great risk will be incurred if the placenta be divided, as the vascular function of this organ will then, doubtless, have ceased.

The position and direction of the external incision has varied. In 57 cases, it has been made longitudinally; in 11 of which number, it was made on the right side; in 24 cases, it was made on the left side; and in 22 cases, it was made in the centre of the abdomen. In 2 cases, it had a transverse direction on the right side. In one, it was made obliquely on the right side. In 17 cases, the situation and direction of the wound is not recorded.

I prefer the wound to be longitudinal, and on the left side.

There are no tissues concerned in the operation which require very slow or nice dissection; therefore, unnecessary tediousness should be especially avoided. If the uterus be slowly incised, the stimulus of the knife instantaneously throws this organ in violent and irregular contraction, which separates the placenta, and entails mischief on both the mother and the infant. Every precaution having been taken, we ought to strictly observe the motto, "*Cito et tuto*". The incision should be made on the body of the uterus, because this portion of the organ is eminently contractile, and ought to extend well towards the fundus, but not into it. It ought not, however, to be carried too far down into the cervix uteri, because this part possesses dilatable properties which are unfavourable to a diminution in the size of the wound.

When the uterine incision is completed, there should be no delay in withdrawing the infant. When it lays in its usual natural position, with the head over the brim of the pelvis, then the obstetri-

cian should seize its legs with his right hand, and pass his left cautiously and quickly down so as to embrace the face on one side, or the hind part of its head. By this mode, a double power could be effectually exerted: one of traction by the legs, the other by raising the head upwards.

If the breech offer at the incised uterine opening, the practitioner should seize it with his right hand and withdraw it, and at the same time use his left hand as above mentioned. If the head lay in proximity with the incision, then it ought first to be brought forth, and, at the same time, he should pass one hand cautiously forward along its body so as fairly to embrace the breech, and act with both his hands as recommended above. These precautionary rules are suggested to prevent the grasping seizure of the neck or the hips of the infant, as the case may be, during its removal. (*Vide* remarks already made.) One or two writers have urged, that the head of the infant should be always first extracted, on the grounds of being safer for it; but a conditional practice, according to its position in the uterus, is by far the best.

The head is most generally situated in the lower segment of the womb, and, therefore, at some distance from the centre of the incision. In order to bring it fairly to the opening, it would produce a great strain on, if not laceration of, the contracted uterine tissue, and create nearly a doubling of the child upon itself before it could be extracted. And as expedition is required, it would be found that the bulk of the head was not very readily grasped with sufficient firmness so as to ensure its speedy withdrawal. Time would be lost, and impediments added. The placenta, with the membranes, should be also quickly extracted.

Protrusion of the intestines is very apt to occur during the operation; this becomes very troublesome to the operator and distressing to the patient, and a considerable time is consumed in order to replace them. This accident not only predisposes to remote mischief; but it immediately tends to depress the vital powers of the woman. She feels faint, and has a sense of sinking. Every care should, therefore, be taken by the assistants to repress and retain these viscera under the integuments by an extended application of both hands on each side of the incision. It is of the utmost importance, that the edges of the external wound should be effectually secured. Sutures or pins ought to be inserted at very short distances; and a considerable extent of the parietes (not embracing the peritoneum) should be included, especially in those cases in which the integuments are much attenuated.

The after-management of the patient must be conducted on recognised medical and surgical principles. Much mischief has been done by active treatment; and it should never be forgotten that, even if it be thought desirable to pursue this plan, it should always be relative to the state of the woman. A negative treatment has been found by me most advantageous. Opium, in full doses if required, should be given.

It is now a general practice to administer chloroform before and during the performance of important operations. If cautiously used, the data already accumulated justify the inference that it is of great advantage to the surgeon, by inducing a state of resistless quietude of the patient. The severity of the

pain inflicted by the knife is considerably lessened, and the shock to the nervous system is thereby diminished. In the majority of surgical operations, there are no other contingent circumstances relative to the administration of this drug which require the attention of the operator, except the necessity of his having first ascertained whether there exist any organic disease of the heart or large vessels which would be dangerously influenced by it; but it is otherwise when it is proposed to use it in a Cæsarean case.

The incision made into the uterus must be at first necessarily large, to enable the obstetrician to extract the infant and the placenta; but, after their removal, the length of the wound is very considerably diminished by the contraction of this organ, which, if not interrupted, is both instantaneous and energetic, thereby effectually preventing any great loss of blood. It is, therefore, very important to inquire whether chloroform interferes with, or altogether suspends, this normal contraction; or whether it induces this action *de novo*, or strengthens it in intensity.

Chloroform has been inhaled in fifteen Cæsarean cases: in one of which there was hæmorrhage; in two of which there was very little blood lost; one of which cases, it is stated, was benefited by its inhalation; and in three instances the discharge of blood was considerable, two of which proved fatal. One of these cases, however, recovered. In one of the cases, the uterus did not contract much; in one, the hand was pressed upon it to induce contraction; in four cases, it is stated, that this organ contracted well. Three of these patients were completely unconscious; and one (which I saw) was only partially under the influence of chloroform.

Ether was administered in one case in which there was some bleeding, but not so much as to be considered to be alarming.

Obstetricians differ in opinion as to the positive effects of chloroform on the uterus. Some say uterine action is retarded by it. Others, again, assert that it does not interfere with it; and there are others who affirm that it promotes and strengthens it. The data which exist on this subject are very meagre and very contradictory; and, therefore, with such discrepancy of opinion, it is impossible to come to a satisfactory conclusion on this subject, especially in reference to its use in Cæsarean cases, in which it is of the highest importance that the normal action of the uterus should not be disturbed. It would, however, be most advantageous to the patient, if she could be safely spared the pain inflicted by the operation; although not one of those women in whose cases I was concerned complained of pain during its performance, but, on the contrary, bore it with great moral courage and fortitude; and most of them observed that they suffered less from the incision, than the anguish they had endured from one of the unavailing labour-pains.

The disturbed state of the vascular and nervous system in all those women who have undergone this operation, must most assuredly render them unfit subjects for chloroform; and, therefore, the deductions which may be drawn from the results in these cases in which the women laboured under incurable disease, and were exhausted from protracted labour, ought not to prejudice us altogether against its use.

We find that vomiting occurred in eleven of the sixteen cases in which chloroform had been administered. In two of the cases, the abdominal wound was rent open by the violent efforts induced; and in several of the others, disagreeable effects ensued. If chloroform do really produce vomiting and its injurious effects, there can be no doubt it ought to be discarded, as it is most important to keep the patient free from all causes which have a tendency to disturb the reparative process in the wound.

So long as the Cæsarean operation is considered only one of necessity, and its performance so unwisely and so cruelly delayed, great risk must attend the inhalation of chloroform. But, if it be made an operation of election, so that women who are in a better constitutional state undergo it, and if, likewise, it be timely performed, then it may be found that great advantage may be derived from the use of this drug; but, nevertheless, before we acknowledge chloroform as a recognised means for this operation, we ought to be fully satisfied what effects it produces on the uterus.

SUPPRESSION OF QUACKERY. No quack is permitted to practise in France. When a man is about to commence the practice of medicine in any town there, he is obliged to present to the mayor, or other authority of the town, his diplomas, and if they are not *en règle*, he is not allowed to open his practice. The result is, that the public health and the purses of individuals are alike protected. Why cannot that which is done in France be done in England? (*Solicitors' Journal*.)

SCOTTISH REGISTRAR-GENERAL'S REPORT. The Registrar-General observes that the character of the weather during any year is almost always different in Scotland and England. In 1864 England was suffering from drought; the returns from 55 stations show a fall in Scotland of 38·6 inches, a fall somewhat above its average. There was nothing in the meteorological phenomena of the year to account for the great epidemic of typhus which prevailed. It attacked large masses of the people in the early months of the year, abated in the warmer season, but again resumed its virulence in September, and increased more and more till the year closed. The epidemic appeared among the people while in the midst of plenty, plenty of work, high wages, and cheap food being the characteristics of the year. The town where the demand for labour has been greatest and wages highest, and in which there need not be a single person idle—viz., Greenock, has been the town where typhus has been most virulent and fatal, causing above 14 per cent. of the deaths of the year, including among its victims four of the medical practitioners. Taking the experience of the Royal Infirmary of Edinburgh—namely, 1 death in every 12 cases of this epidemic, above 7 per cent. of the population of Greenock must have been attacked with typhus fever in 1864. But Greenock is shown by the register year after year to be by far the most unhealthy of the eight principal towns of Scotland, if not the most unhealthy town in Scotland. The inhabitants have to contend with two adverse causes which tend to induce predisposition to attacks of epidemics—a low-lying, damp site, and greatly overcrowded dwellings, the house accommodation not keeping pace with the increase of the inhabitants. The report has to record an extremely unhealthy year; but small-pox was happily less prevalent than in 1863, and the new compulsory Vaccination Act is working much better than was anticipated.