A FEW PRACTICAL OBSERVATIONS ON ABORTION, &c.

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(Communicated to the Anniversary Meeting of the Provincial Medical and Surgical Association, at Sheffield, July 31, 1845.)

Mr. President and Gentlemen,—

I have ventured to bring before you a few observations, hurriedly put together, on abortion, a subject of the highest importance to the medical, but more especially to the obstetrical practitioner. It is not, however, my intention to enter into a detailed account of this accident on the present occasion, but I shall only make a few remarks on the moral responsibility connected with this subject, and also suggest a few practical hints, which may be useful to guide the young or inexperienced practitioner in his prognosis and treatment.

It is treated in medical writings under three distinct heads:—1st, as the consequence of a criminal act; 2nd, as the result of an operation performed to supersede the necessity of the Cæsarean section; 3rd, as an accident.

The first division of this subject will be found discussed in works on medical jurisprudence, to which I beg to refer you. The second and third divisions are purely obstetrical, and are mentioned by most writers on midwifery, especially the third.

The contents of the uterus may be expelled at any time before the completion of pregnancy; and the terms abortion, miscarriage, and premature labour, have been used by writers to signify the event when it has occurred before or after a certain definite period. I consider all cases which occur during the first five months to rank as abortions, and those which happen before the expiration of the nine months I call premature labours. This arrangement differs from that usually adopted by writers. It extends a longer period of viability to the fetus from that which has been considered to influence the vital power of the child *post-partum*.

The value to society of the embryo, is as great as the fetus in utero, in every way, except as to the degree of development, which is only the result of the same vital actions, gradually perfecting as they progress, carried on for a longer time; and as the accomplishment of this condition cannot be aided by any human means, it follows as a moral principle that the obstetrician ought duly to consider the precise and relative differences of the same vital actions, which ultimately perfect an organization in each case precisely similar, and the being thus formed is in the end endowed with the same vital principle.

There are sometimes circumstances existing during pregnancy which threaten to destroy the woman, and as they are only accidental or contingent upon some particular condition existing at this time, and not depending upon a permanent or constitutional cause, justify the induction of abortion in order to save the life of the woman. Under these circumstances we can be at no loss to judge of the comparative value of the two lives, but fortunately these cases are extremely rare. The case assumes quite a different feature where there exists a permanent, organic, and irremediable condition of the maternal structures, of such a descrip-

tion as to prevent the passage of a viable fetus. Here I will venture to assert, although contrary to the opinion of some of our best writers, and indeed I may say nearly the whole profession, that it ought to be laid down, and acted upon as an indisputable proposition, that the destruction of life, or the induction of abortion, ought never to be performed in order to supersede other means of relief.

As under the above stated circumstances it is criminal to sacrifice life, so it is likewise criminal to omit those measures calculated to prevent or arrest abortion taking place which arise from accidental causes, or consecutively occur as the result of an established habit in the uterine system. There are, in all cases two important symptoms to be met with, either singly or together,—pain and hæmorrhage. It happens that the pain may continue to exist, and proceed alone to harass and distress the patient; so also flooding, more or less profuse, occurs alone, and produces different relative constitutional effects; but neither the one nor the other of these symptoms continue for a length of time without great risk of destruction to the vitality of the ovum; and sooner or later the other symptom invades the case and adds to the danger.

We possess ample means to mitigate, arrest, or subdue these symptoms, and therefore there can be no excuse for that apathy which allows the abortive process to go on, when every effort should be made to stop its progress.

It is stated that no danger attends the hæmorrhages which happen in the early months of pregnancy; but I fearlessly deny the truth of this dogma, and assert, that on the contrary, there is great danger, immediate and remote, in many of these cases. Such statements as the above have a most serious influence on the mind of the young and inexperienced practitioner, and induce him to neglect active preventive measures at the only time when they can be successful. It is by no means to be understood, that the timely adoption of remedies will invariably be attended with success; but on the contrary, experience proves, that cases do sometimes occur where the abortive process will proceed, in spite of every effort, however judiciously made. But even in these cases the practitioner has much in his power to prevent both local and constitutional evils, the latter being sometimes fatal. If these symptoms are so uncontrollable as to resist all remedial means, the practitioner is satisfied, knowing that he has conscientiously discharged his duty. The obstetrician is frequently summoned to cases of long duration, in which it is too late safely to adopt the preventive means which have been before alluded to, but which are not enumerated, as they are so well understood. In such cases as these, it would be as unjustifiable on his part to attempt to arrest the expulsive actions, as it is in the other set of cases to omit to adopt them.

This practice tends to increase and accumulate the evils by protracting the process.

Then, as it is a moral duty to adopt correct principles in the treatment of abortion, not only are we bound to avoid the evils of commission, but also of omission, by endeavouring to make ourselves acquainted with all contingent circumstances, which may afford us a knowledge of those organic conditions which are to prove our compass to guide us in our dif-

scilities. I have said that there are two symptoms which are invariably attendants—pain and bleeding. So long as pain continues, there is no safety in the case, and as pain is estimated by our patient as an evil, which in the abstract it is, our endeavours ought to be directed to subdue it, if proved so. As the amount or duration of pain affords no satisfactory indications that the abortive process will take place, it is the duty of the practitioner to ascertain by other means, whether measures calculated to prevent or expedite the expulsion should be employed.

The hæmorrhages which take place, whether trifling or profuse, ought always to be suppressed, because we cannot judge to what degree the ovum has become separated, from this symptom alone. The existence of vitality in the ovum is a sufficient reason why every effort should be made to arrest the expulsive process. On the contrary, the death of the embryo would justify the application of means which tend to expedite it. Unfortunately, however, the signs of the life or death of the embryo or foetus in the early months are so uncertain, and indeed obscure in most cases, that rules of practice cannot correctly be based upon them.

As, then, none of the above symptoms, either alone or collectively, enable us to treat the case, it may be asked, What ought we to depend upon to guide our proceedings? I shall now endeavour to show.

A vaginal examination ought, in the first place, to be made in every case of threatened abortion, for it is impossible to treat it on scientific principles, or with justice to the patient, if this exploratory operation is not performed. It affords information to ground the diagnosis, prognosis, and treatment, more correctly than can be obtained by any other means. Although this operation is so important, it is generally omitted, and the cases are treated on routine and empirical principles, regardless of the real condition of the uterus or its contents.

The development of the gravid uterus is confined during the early months to the body and the fundus, but afterwards the cervix changes and progressively contributes a share to enlarge the cavity of this organ. The expansion and shortening of the cervix, although mentioned by writers as uniform, is not always so, but the difference is not so great as to interfere with the practical deductions derived from an admeasurement of this part.

The gravid uterus of the early months is of a globular shape above, consisting of the body and fundus, and the cervix, which forms a stem-like projection below, which is gradually and progressively shortened until it is completely effaced. At the end of gestation this organ is of an oviform shape. The lips of the os uteri become more tumified, and the aperture changed in shape and plugged up with mucus.

The changes which take place in the cervix of the uterus during the abortive process strongly resemble those produced by the normal development of this part. The upper portion of the cervix becomes the first expanded, and successively the lower portions are mechanically affected, until the stem-like projection is altogether lost, so that the uterus now presents the oviform character.

The changes which take place in the os uteri in the early period of miscarriage or abortion can alone be produced by sympathy, except the disengagement of

the mucous plug, which is frequently, and indeed generally, loosened by the blood passing downwards to be discharged.

These organic changes of the cervix and os, accompanying the abortive process, are readily ascertained by an examination per vaginam. The length of the cervix can be easily measured and its shape clearly ascertained by passing the finger along its surface, and computing the different degrees of the angle of reflection of the vaginal membrane, and comparing its relative length with that of the normal state.

The state of the body of the uterus is also changed during the abortive process, and is felt to be enlarged in consequence of, and in proportion to, the addition it has received from the expansion of a portion or the whole of the cervix. The tangible characters of the body during this period, presented to the finger by a vaginal examination, are very different from those of the same part when the uterus is in a normal gravid state of the same date. It has lost the abrupt angle, and assumed, in proportion to the cervical development, a line represented by a more obtuse angle, and is by degrees ultimately reduced to the oviform shape. When the cervix is completely distended no line of demarcation nor line of difference can be traced between this division and the body of the uterus. These changes are not always produced within the same time; in some cases they rapidly take place, but in others, a considerable time elapses before they are effected.

In the early period of miscarriage the finger should never be introduced within the os uteri, for this procedure alone would most likely bring on, in some cases, uterine contraction. The length of the cervix presents an insurmountable obstacle to the finger coming into contact with the ovum.

From the foregoing facts the following practical inferences may be drawn:—

1st. As flooding is never unattended with danger, if it is allowed to continue unchecked for a length of time; and as it may exist in different degrees of violence, without inducing uterine contraction, it ought, if possible, to be suppressed.

2nd. As pain may exist in different degrees of violence, and for a considerable length of time, but yet may be subdued if proper means are adopted; on the contrary, if it is allowed to proceed without interference, the expulsion of the ovum is sure to follow.

3rd. The first duty in the treatment of abortion is to make a careful vaginal examination, to ascertain the state of the cervix uteri. If its figure, size, thickness, and length are normal, it is the duty of the obstetrician to adopt means to preserve the ovum, and subdue the attendant symptoms; on the contrary, if we find the cervix uteri is shortened, partially or entirely distended, so that the figure of the uterus is changed, and is beginning to assume, or has assumed, the oviform shape, the abortive process should be encouraged by every means in our power, at the same time that we have due regard to those contingent circumstances which are attended with hazard.