

## Original Articles.

## THE FUNDAMENTAL CONCEPTIONS WHICH SHOULD GOVERN MODERN OBSTETRIC PRACTICE.\*

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In the last twenty years surgery has gone through an evolution familiar to all, the successive steps of which have been: a decreased danger in operative work from the introduction of asepsis; following that a great increase in the frequency of operation; as a result of that, rapid advance in technical skill, followed by a still further decrease in the dangers of operation, and hence a justified readiness to adopt operative treatment for many diseases which were formerly considered to be only fit for prolonged medical palliation. Surgery now cures many cases which were formerly left practically to nature.

Obstetrics has been through this same evolution; nobody would to-day dream of permitting the excessively prolonged labors which were so frequently endured a generation ago; but the advances due to asepsis have been thoroughly assimilated and the newer developments in both surgery and obstetrics rest upon bases of later development than asepsis.

In surgery we may hope that the era of indiscriminate operating is past; we already see that the successful surgeon of the immediate future, or rather the man who is to-day qualified for further success, is not the mere operator, but is rather the man whose knowledge of symptomatology, of the natural history and physiology of surgical disease, either untreated or under medical treatment, enables him to choose wisely those cases which should be subjected to the knife, and to separate them from those in which operative treatment will not do symptomatic good comparable to the risks and disadvantages of operation. In obstetrics, similarly, the advances of recent years have followed a new conception of the relation of the physiology of labor to difficulty in labor which has only gradually gained recognition.

In ancient days all labor was regarded as natural and normal. With the advance of civilization it was realized that certain cases of extremely prolonged and exhausting labor were due to the intervention of pathological causes and that when pathological factors were present the natural process must be aided by the obstetric art, but we have been until very recently, and many men are to-day, too much dominated by the obsolete and crude conception that all difficulty in labor is due to the intervention of mechanical obstacles of pathological origin. We have not only failed to recognize until very lately the importance of the vital conditions which make for ill success in labor, but we have been slow in realizing that both the mechanical and vital conditions which make labor difficult are often due to individual variation within physiological limits,

and it is, therefore, only within the last few years that the old conception of a sharp line of division between the normal and the pathological has been replaced by the far more scientific view that even in non-pathologic cases the favorable shades by infinite variations into the difficult, and that we must consider all the factors in the problem, the vital as well as the mechanical.

From a scientific standpoint it is interesting to observe how completely this more recent conception is in accord with evolutionary law and with the observed data of the comparative anatomy of the pelvis and genitalia.

It is one of the fundamental laws of evolution that the more recently developed a generic variation, the greater is its variability among individuals, and, in corollary thereto, the more important the function of a changing organ, the more liable it is to variation during the period of change. Since the assumption of the erect posture by man is admitted to have occurred in a geologic yesterday, i. e., to be one of the most recent great changes in structure of which we have any knowledge, it would be expected, *a priori*, and in accordance with this law, that the alterations of structure dependent upon this posture would be among the most variable in the human frame; and an examination of the three great factors in labor<sup>1</sup> in the light of this law is of great practical interest.

No one of the many alterations in anatomy which have been caused by the gradual assumption of the erect posture is more marked, and none is more fundamental to this attitude, than the change from the slightly constructed, loosely jointed, cylindrical and straight pelvis of the quadrupeds, with its low opposition in labor, to the solid, closely united and highly curved pelvis of the human race, and hence in obedience to evolutionary law none should be more variable in the individual. In full accordance with this law it is an observed fact, easily capable of demonstration, that not only the racial, but the individual variations in the shape and size of the pelvis of man present so extreme a range of very diverse types that the pelves of individuals of this single genus often show greater differences of shape than are found between the pelves of allied genera among the quadrupeds. Moreover, the range of this variability between individuals of the human race appears to be greater in the female than in the male, and this is in striking accord with the more diverse and important functions of the changing organ in the female. Thus the results of observation and of organic law again support each other.

It is certainly a fact that many pelves which offer considerable mechanical difficulties in labor are non-pathological and are, in fact, merely individual variations from the average, both in size and shape.

Turning to the uterus we find that while this organ varies widely in shape and power among the different genera of the mammalia, it is in all the animals except ourselves a thin-walled, flaccid

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<sup>1</sup> The pelvis, the uterus, and the head.

bag of comparatively little muscular power, which is unopposed by any group of muscles designed to close the outlet; is uniformly two-horned,<sup>2</sup> i. e., is substantially undifferentiated from the Fallopian tubes, by the union of which it is formed; and rests in stable equilibrium upon the horizontal anterior abdominal wall. It is only in the genus homo that we have the solid, thick-walled, single cavities uterus with its horns distinctly specialized into Fallopian tubes. It is held in place, in very unstable equilibrium, by a complicated arrangement of well-developed ligaments which are hardly foreshadowed in the other animals; its action as an obstetric engine is opposed by a differentiated cervix adapted to close its orifice with a force unknown in any other species, and the outlet of the pelvis is closed by a group of well-differentiated perineal muscles which are elsewhere unknown (except in a few of the higher quadrumana, in whom they are so slight as to have but little functional value).

All these changes in the soft parts are most marked and most recent changes dominating a function of the utmost importance, and their consequent inevitable instability of type is well demonstrated upon the one hand by the frequent occurrence of lack of balance between the propelling and opposing muscular forces in labor, and upon the other hand by the astounding frequency of their failures to withstand the requirements of ordinary life, upon which so many lucrative gynecological practices have been built.

The great variations in the size and ossification of the third great factor in labor, the fetal head, are also dependent upon the other geologically recent changes which make man different from the brutes, but, unlike the other factors, these great variations in the fetal head have been too long recognized to need discussion.

One part of the latest conception of obstetrics is, then, that a function dependent upon factors all of which are so highly variable, must in itself be subject to variations of the widest degree even without the intervention of pathology, and that even physiological variations often indicate assistance in labor.

In considering the meaning of these variations, as in other evolutionary study, we must always distinguish between the interests of the race and those of the individual. When man assumed the erect posture nature was confronted by a problem of the greatest difficulty. The ordinary necessities of locomotion required a solid pelvis such as had never been needed before, and demanded the closure of its outlet by structures previously unknown; but while these were the requirements of the pursuits essential to individual life, the preservation of the race favored the retention of the ample pelvis and open outlet which had been characteristic of all previous life. In the race as a whole evolution has effected a more or less successful compromise between these opposed requirements, but nature cares only for the race and for the ultimate production of a

successful type. Evolution is always utterly heedless of the sufferings of the individual, while, upon the other hand, we, as physicians, are concerned mainly with the interests of the individual under our charge.

In the care of individuals, the modern conception of the normal in labor is, then, that combination of a moderately sized and ossified head with a powerful uterus and a large and well-shaped pelvis which permits of a natural labor without undue fatigue to the mother, or danger to her or to her child. Fundamentally and always such labor as this is better than any efforts of the obstetric art, but the modern conception realizes also that although among the great variations in the human genitalia there are many individuals whose type of variation tends toward the structure which permits easy labor, there are also other equally normal individuals whose type of variation is towards that which is more useful for the other purposes of life in the erect posture and away from that which leads to ease in labor.

These individuals are normal, i. e., they are not pathological, but in them nature's compromise has been inimical to the interests of the individual in labor, and it is with the interests of the individual in labor that the obstetrician is immediately concerned. In many of these obstetrically less favorable variations natural labor may well be less desirable than the skilled efforts of the obstetric art.

The first great point in modern obstetrics is, then, as it seems to me, the comparatively recently admitted frequency and importance of the mechanically scanty pelvis (as an addition to the long admitted occasional pathological contractions); and it is important to remember that all recent clinical observers are agreed upon this practical point, without regard to whether or no they admit what has been said here as to its etiology.

We must, then, extend our ideas to cover not only the long-recognized pathological alterations in the pelvis, but to recognize and when possible to measure the unfavorable physiological variations also; and we must estimate all this not only in connection with the varying sizes of the head, but with the characteristics and amount of force of contraction of the individual uterus, and with an estimation of what may be termed the "staying power" of the individual patient; which form together the study of the vital conditions which may be termed the second great point in the modern conception of the duties of the obstetrician.

The study of the characteristics of the contraction of the uterus involves, too, observation not only of the variations in its power, but also in the suffering of the woman; and in estimating the individual in labor both these factors must always be considered.

In the older obstetrics there was no dogma more firmly founded than that women were so made that they were unharmed by any amount of the pains of labor which they might survive, i. e., that their suffering and exhaustion had no remote effects.

<sup>2</sup> In the functionally one horned species the other horn is usually only functionally non-existent.

It is certainly true that the amount of suffering and fatigue which the more robust and brutal peasant type of women can sustain in labor without ill-effect is most surprising, but there is no fact of which we can feel more sure to-day than that in the more delicate, less stable type of women a prolonged and unduly painful labor is not infrequently the starting point of protracted neurasthenia.

That over-painful labor is in itself an evil of such severe degree as to imperatively demand relief is a belief so startlingly at variance with past creeds that there are still many obstetricians of the older type who have not grasped it, but there are now, on the other hand, many obstetricians to whom this idea has appealed as in accord with the results of past experience for years enough to have enabled them by now to have submitted it to the test of extensive observation; and I think I may say that of those who have been watching it during perhaps the last five years with open mind there are but few to whom it does not seem a well-established principle. It is only fair to say here that there are still a few dissenting minds of high authority, but it is surely true that a large majority of leading obstetricians will assent freely to the proposition that, in the care of labor, pain *per se* is no small evil, not merely from the standpoint of the patient's suffering, but from the standpoint of her future health as well.

This proposition needs, however, some further explanation. It is probable that the observed ill-effects of excessive pain during labor in the production of subsequent neurasthenias is in reality not so much the effect of the pain alone as of the conditions which produce that pain, and we must recognize two varieties of over-painful labor.

Excessively painful labors occur occasionally in robust women from special causes, all of which it is impossible to enumerate here, but which may be instanced by citation of the occasional cases in which from individual peculiarities in the position of the head or the shape of the pelvis, the fetal cranium makes direct pressure on the sciatic nerve, the starting point of many of the intractable sciaticas of later life. The sudden appearance of such excessive pain as occurs in this or other conditions of this class is always recognized as unnatural and usually receives prompt attention.

The second class of excessive pain, that with which we are now more immediately concerned, the excess of pain in proportion to progress throughout the labor, and especially in the earlier stages of labor, until lately almost entirely neglected, appears only in one class of women; they are often the hot-house plants of the more luxurious classes; they are sometimes the overworked and under-cared-for of the less prosperous; but they are always women who are by their original makeup prepared for neurasthenia; and it appears especially often in that large proportion of these unfortunate women who have had ill-developed uteri from the start.

To take up the same point more from the standpoint of clinical obstetrics, over-painful labor is

the rule in women in whom the pains of labor are irregular from the beginning, both in duration and interval, and are at the same time unsatisfactory in force. Such pains are always unduly painful. It has long been recognized that whether they are severe or not, they fatigue the patient much more than the effective pains of forceful and progressive labor. It has only lately been observed that unless such pains promptly become regular and effective they result in one unfailing sequence of unfortunate events.

In such cases there is an early production either of annular contractions of the uterus which restrain the progress of the child and, indeed, the dilatation of the cervix; or there appears a tonic rigidity of the whole uterine muscle throughout the interval, attended by moderate increase of contraction during the pain, or perhaps both of these conditions are developed together. It is of the first importance to realize that any of these three states tends to rapid exhaustion of the patient without progress. If left untreated, a certain proportion of such cases end in the performance of imperative operations under all the difficulties and dangers which attend extraction by any of the operations in the face of a rigid uterus; and these operations of delayed necessity are always difficult and dangerous operations because in them the uterine muscle is opposing rather than aiding the obstetrician. Not all these cases end in operation, however; in perhaps a larger proportion of them the opposing circular fibers of the uterus which have been in undue activity finally tire out, and the child is then driven through; but even in these more fortunate cases this final progress has always been attained only at the cost of great and usually unnecessary exhaustion of the mother. It is a most certain fact that after either ending such cases usually make a disturbed and slow convalescence. It is only of very recent years that we have grown to recognize the connection between such labors and subsequent and sometimes permanent neurasthenias.

This is not yet universally recognized, but it is not theory. It is the result of the direct observation of many men and is to-day the accepted view of most obstetric authorities.

Such labor is never powerful. It is only painful. Its treatment usually depends upon the mechanical conditions to which the imperfectly acting uterus is opposed. Under easy mechanical conditions, and if taken at the start, some few cases may be relieved by so trifling an expedient as temporary anesthesia. More may be successfully managed by partial or complete artificial dilatation of the cervix. Even under easy conditions some few require forceps, and under difficult mechanical conditions they almost invariably indicate an early extraction. Very exceptionally such a case may be best dealt with by primary delivery in one form or another, but with the details of treatment it is not my province to deal to-night.

Cases of this kind demanding minor treatment in the early stages of labor are extremely common and should always receive it. Cases of more

extreme degree are not uncommon, but it must be remembered here that an over-readiness of the inexperienced to use the major methods for the relief of pain as such, or for the prophylaxis of remote results, may well do more harm in the community than a limitation of their efforts to safer fields, a point on which I shall have more to say later in this paper.

The third point which seems to me fundamental is that prophylactic use of operation which lies so close to the root of our modern conception of the care of labor.

In illustration of the importance of this point, I must use at the start a simile drawn from a source which seems far distant. It is characteristic of a great lawn tennis player that he rarely makes a stroke at disadvantage. He is rarely forced into a corner and obliged to play under conditions imposed by his adversary, and when he is so forced he usually loses the rally.

In the management of labor, too, most of the unfortunate results occur in cases in which the obstetrician has allowed himself to be forced into operating after the conditions have become adverse. The modern obstetrician in his own practice rarely sees the difficult extractions which were the rule in practice twenty years ago. When he does it is because the art is a difficult one and he has failed in judgment, i. e., he has either failed to foresee the onset of difficult conditions, and is operating too late, or he has failed to select the appropriate method of delivery. So long as we are human, we shall make mistakes, but the principle holds always.

The ultra-difficult extractions are always due either to the application of the intra-pelvic operations to cases in which the mechanical obstacles are too great for the safe use of these operations, or to their use after the failure of progress has rendered the soft parts rigid and the conditions adverse. Many a case which would yield an easy forceps operation if the instruments were applied at the first moment when progress fails will result in a desperately difficult extraction only a few hours later, either because the uterine muscle clasps the shoulders and furnishes a restraining rather than a propelling force, or because the head has become molded in a position in which it cannot readily pass the pelvis, and is, therefore, ill adapted to the position in which it must be placed for extraction; or from similar mechanical causes. Only he who has become familiar with the ease of operative extraction when instituted at the very beginning of difficulty, and practically in advance of it, and whose past experience enables him to compare these cases with the extreme difficulties of late extractions, can fully appreciate the advantages to mother and child of early operating.

Upon the other hand, the routine application of high forceps or podalic extraction to every case in which there is delay, irrespective of the probability that nature will be able to overcome it, is poor obstetrics even in the hands of the most expert obstetricians, whose work may be expected to show a minimum of even the minor disad-

vantages and mishaps. It is the worst of bad practice in the hands of those of less highly cultivated skill, with whom such mishaps are sure to be more frequent.

The art of selection of unfavorable cases in advance of labor or in the early stages of labor is a point of practice in which modern advance is strongly interested. Though it is far from having been perfected, it is one in which the advances of the last few years have effected so much progress that we may fairly hope that in another generation it may have reached a position of widely disseminated practical use. To-day its fuller applications must be limited to a comparatively few plainly marked cases, but in them it is already of the greatest importance, and in a very large number of all cases the art of prophylactic obstetrics, as it may be called, is of the first importance in the more limited and cautious forms of its employment.

No expert obstetrician ever goes to a case which he has seen and studied during pregnancy without a tentative plan of action laid out in his mind, to be modified or not by the progress of labor. He may have estimated a given case as one which will surely result sooner or later in successful delivery by the natural forces, or at most by low forceps, and which should, therefore, be given time to hammer out her own salvation; or he may have estimated her as one in whom the propelling and opposing forces are so nearly balanced that unless progress is steady and uniform the conditions adverse to progress will surely become augmented early, and who should, therefore, be given assistance at the first sign of delay. He may have placed her in any one of half a dozen categories, but this preformed estimate is the very essence of his attendance on her.

Every professed obstetrician also divides his difficult cases in his own mind into two very diverse classes with usually very different results. First, the cases which he has not seen until he is called in labor, usually as a consultant and always and without exception later than he would have liked to have arrived. Outside of eclampsia and a few of the other grave vital complications, he does not to-day expect many maternal deaths even in this class of cases, but he does expect that fetal deaths, broken bones and disabilities and for the mother extensive tears and other morbidities will be frequent in this class of cases. He does not waste much time in regrets over such accidents, for he always feels, and usually rightly, that they are to a greater or less degree the other man's fault for not having advanced far enough beyond ordinary professional attainments to do prophylactic obstetrics. In the second class, he places those difficult cases which have come under his own care in the course of their pregnancies, either as a consultant or in personal attendance, in whom he has been able to bring the patient up to labor in good condition for it, and with adequate knowledge on his own part of all the mechanical and vital conditions. In these cases he may fairly feel that even the minor accidents may be charged to his failure to attain perfection in his

art. No one can conduct campaigns without suffering occasional defeats; no one can practice obstetrics without incurring a percentage of the minor ill-results or without seeing occasional maternal deaths (usually from vital causes), but in the class of cases which have been adequately studied before labor and treated by prophylactic operation, i. e., by operation at any stage of labor at which it becomes advantageous, but always well before it becomes absolutely necessary, ill results are very rare.

We were taught twenty years ago that 95% of obstetric cases needed no attention, and that false dictum is still quoted. It is absolutely untrue. It is true that about 95% of labors will eventually result in a living child without operative interference, and that 97 or 98% of the mothers will survive, but this is not all that is demanded of us to-day. Many such children die afterwards, and many such mothers are the worse off for life, and we can give them better results than this. Most women are the better off for some sort of care in labor, but we must differentiate between the different classes of assistance.

I should estimate that 75% of all women were definitely the better for trained attendance in labor in minor ways: the care of the perineum, the hurrying of labor by proper management of the membranes, the occasional use of anesthesia, and the many small attentions which are the common property of the profession to-day.

I think most of you will agree that at least 60% of primiparæ have more favorable, less exhausting labors, and better convalescences, if the head is lifted over the perineum by the low application of forceps, and everybody knows that the percentage of stillbirths is less in cases treated in this way than after long perineal stages. It is also probable that 10 to 15% or more of multiparæ are the better for having a short perineal stage under the use of low forceps.

On the other hand, it is difficult, if not impossible, to estimate the percentage of all cases in which modern obstetrics advocates the use of high extractions, but the number of even these cases will certainly be much larger than the old-fashioned 5% of pathological labors who needed some attention. Much must depend on the operative ability of the obstetrician and on his capacity for planning out the campaign tentatively beforehand.

The estimation and classification of patients before labor implies the estimation of their mechanical conditions by physical examination and the estimation of their vital qualifications by history, symptomatology and physical examination. In practice all primiparæ should be measured. The determination of the degree of mechanical difficulty of adaptation may be difficult or even impossible in primiparæ without the supreme test of labor, but the separation of primiparæ into those in whom some question of difficulty exists and those in whom all the conditions are easy requires but a single examination, and such foreknowledge is of the utmost value to their interests.

It has long been said that women will not consent to examinations before labor; that, desirable as such general measurement is, it is impossible to adopt it in private practice, and this was certainly at one time true. I believe it to be utterly untrue among the intelligent classes to-day. The women of this community at least are almost invariably ready to take any precaution which is urged upon them as necessary by a physician whom they trust. The real difficulty is that most physicians are still insufficiently impressed with its importance. All primiparæ should be measured, and all should be estimated from the vital standpoint so far as this is possible.

It is not necessary to examine all multiparæ, but all multiparæ who have had difficult labors, or who have had unfortunate results from labor, should be examined in the most careful and thorough way in advance of the next labor. In my judgment, the essential thing of all others in obstetrics for the general practitioner to learn is that in the eyes of those best qualified by skill and experience to judge the question, nothing can wholly take the place of a thorough examination *during pregnancy*, without which that most important of all the principles of modern obstetrics, prophylactic operating, can hardly be wisely undertaken.

May I interpolate in conclusion of this point, and for fear of misunderstanding, that prophylactic operating does not mean the indiscriminate use of operative labor, or the use of operative extractions before any unfavorable conditions have arisen; but that it does mean a resort to operation at the very first indication of the appearance of unfavorable conditions which have been foreseen, anticipated, and provided for.

In summary of my three points, I think that all obstetric authorities now believe that mechanical obstacles of clinical importance are far more common than was formerly taught; that excessive pain in labor is a serious evil *per se*; that most obstetric difficulties can be avoided if they have been foreseen, and finally, and on all these counts, that careful skilled study before term is the most important technical element in the management of difficult labor.

There is, however, something which should be said on this point which may come perhaps more gracefully from one who, like myself, is now no longer active in obstetrics, who does not take normal labor and to whom even obstetric consultations are rather a side issue in practice, than from one who is directly interested in the care of labor and who might consequently feel that he could not decorously take what might seem an unduly interested stand; and that thing is that such work as the management of cases known beforehand to be difficult, by action anticipative of their evils, is work for experts and for experts only. It is neither politic nor usually in the interest of his patients that the family practitioner should undertake such cases without aid. Indeed, after a somewhat large experience with both I think I can truly say that it is my experience that major surgery with all its grave responsibilities

involves less thought and care than the wise conduct of really difficult obstetrics, and I think demands less special training.

Nothing is more gratifying to those who have taught obstetrics than the advance which has taken place in its practice in the last twenty years throughout the whole profession. Twenty years ago obstetric practice was extremely bad upon the average; to-day the general practitioner of the better class is competent and careful not only in the care of normal labor, but in the ordinary run of operations. He should, nevertheless, remember that high delivery for minor indications is justifiable only in proportion to its safety, to its immunity from minor evils as well as from a death-rate; in other words, that that which is permissible to one who has acquired special training is less and less desirable to the patient as the skill of the attendant lessens, till in a tyro's hands it may well be quite unjustifiable for the given indication.

It is one thing to be obliged to operate; it is quite another to hold that operation is preferable to a possible natural delivery in a given case. He who does the latter should know his business more than ordinarily well.

To the general practitioner the practice of obstetrics is a sheer necessity; he cannot hold his families if he does not attend their labors. Nothing helps his reputation more than a large and good obstetric practice. He is apt to think he hurts himself if he calls in an expert. After a fairly long experience in consultation practice I am sure that in this he is mistaken. It is always impolitic for him to attend unsuccessful cases; once he is a convert to the new obstetrics he will feel bound to give his patients its advantages; it is doubly impolitic for him to undertake alone the class of cases in which he knows beforehand that grave responsibilities will occur. He will have enough of difficult extractions in the emergencies which he cannot avoid. When circumstances lead him to think beforehand that a given patient may be better treated by early operation, either for mechanical or for other indications, whenever he even anticipates trouble, he will do wisely if he shares responsibility, and, indeed, forestalls it, by consultation before the advent of labor. We all know that even when an emergency or long exhaustion compels an operation, some patients will blame the doctor; but if misfortune follows an extraction undertaken early and for indications which are less evident to the laity, the doctor has the blame inevitably. The family practitioner is wise if he avoids this chance; the specialist must take it if he is called upon, that is his business, and, moreover, it is a well-known fact in human nature that with the same results, the specialist will often go scot free of blame when if the family practitioner had done the operation he would be held responsible for all that happened; finally, the justification for such action is its modern freedom from such accidents in skilled hands.

To leave policy, and take higher ground in the interests of the patient, the doctor who believes that there are certain cases which need special

treatment must, if conscientious, call special knowledge in on those occasions. It is a very narrow view of medicine which holds that every case must see some specialist. I am not afraid to say that many cases will only be the worse for it — those which are not special cases are usually wise if they avoid the specialist — but when the specialist, or rather when the progress of a given speciality gives notice to the general practitioner that certain cases demand new recognition and involve a grave responsibility, it is for him, the family practitioner, to decide whether that warning should be credited, and if, as time goes on, he feels it is, govern himself accordingly.

We were asked to-night to give such a summary, which is, in brief, again, that neither the pelvis, the soft parts, nor the uterus as an obstetric engine have any fixed normals, but, on the contrary, each of these all-important factors in labor is subject to wide variations within the normal limits. We must, therefore, recognize that there is no sharp line of demarcation between easy and difficult labor. Marked pathological conditions are now usually detected, but difficult labor is not necessarily nor always the product of pathological factors; on the contrary, we must recognize the fact that the conjunction of a normal but scanty pelvis with an essentially normal but weak and ineffective uterus and a large and hard head may often result, will usually result, in a seriously difficult labor. We must recognize, further, that when this conjunction of unfavorable variations of the normal fails of early recognition and is subjected to treatment late, it leads frequently to the most difficult situations which the obstetrician is ever called upon to face. It is worse than most prerecognized pathological labor. It can frequently be anticipated, in primiparæ, by study of the history and by a physical examination, and can almost always be detected in multiparæ who have had one difficult labor.

We must recognize that in weakly women the endurance of unduly painful and protracted labor is a not infrequent cause of subsequent neurasthenia and that the endurance of unnecessary pain is *per se* a considerable evil which the obstetrician should feel bound to spare his patient whenever her safety permits it.

There is to-day no point of greater importance to the general practitioner than an absorption on his part of the fact that the whole foundation of modern obstetric practice lies in prerecognition of probable difficulties; that when the consultant is called in after progress has failed he is confronted by difficulties and dangers which ought never to have been allowed to arise, and that whenever there is reasonable anticipation of difficulty and of a necessity for a consultant, he has a right to ask, and the patient has a right to demand, that he should be called in not after trouble is already present, but before the patient ever goes into labor.

This does not mean that the general practitioner must yield up his obstetric practice. It does mean that when he has beforehand the instinct which we all know that the given case may not



improbably prove a difficult one, he should not wait for blind luck in labor and the unfortunate results which are sure to attend it in a large percentage of such cases, but should avail himself of that mere suspicion to avoid the greater proportion of his difficulties and dangers by sufficiently careful examination beforehand, either by himself, if he feels equipped for it, or by the use of a consultant, and further that he should cultivate that instinct of coming danger by careful study of his pregnant cases. The use of a consultant during pregnancy should not, however, mean that the general practitioner necessarily turns over the case, but usually that he will enter upon its care himself, fortified by consultation and with a better plan of management than he individually might have obtained for himself. It means, in other words, that he should treat his obstetric practice as he treats the rest of his business, availing himself of advice upon all cases which he thinks may promise difficulty, and turning over to the specialist, or working in conjunction with him, only in those cases which he sees reason to believe will be the better for exceptional skill, and which it is not an advantage for him to attend alone. In the other departments of medicine no one to-day doubts that this is both the right and the wise course of action for the general practitioner; that it has not yet become the rule in obstetric practice is, I think, due to the survival of an obsolete contention on the part of obstetricians that all labor cases should be placed in the hands of specialists. There was some basis for this contention a generation ago. It has but little force to-day.

Most obstetricians still accept normal cases, but all of them would be ready enough to restrict themselves to the care of difficult cases only if the general practitioner would do his part by using them as consultants beforehand with the full confidence that they will not attempt to rob him. To indulge in prophecy, I believe that this will be the future of obstetrics; and, speaking as a gynecologist who from past associations has a peculiarly intimate knowledge of the obstetricians of this vicinity, I feel warranted in assuring you that is the spirit that you will find among them if you will use them as you should as consultants in advance of labor.

There can be no greater boon to the community than the diffusion through it of properly and carefully guarded prophylactic obstetrics, with its far-reaching results in the lessening of the so-called minor evils of fetal stillbirth and disability, of subsequent maternal local lesions and post-obstetric neurasthenia, due to foreknowledge of contraction, to the avoidance of delayed operations done under the adverse conditions of maternal exhaustion and soft-parts, obstruction, and to a recognition of the evil effects of pain *per se*.

**CORNERSTONE LAID.**—The cornerstone of the Children's Free Hospital, Louisville, was laid May 15, with impressive ceremonies.—*Jour. Am. Med. Asso.*

## WHEN TO INTERFERE IN PREGNANCY AND LABOR.\*

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WHEN to interfere during pregnancy or labor is one of the most important subjects with which we have to deal in the practice of obstetrics. Its importance can hardly be overrated when we consider that judicious interference with nature at some time during pregnancy or labor may result, first, in saving the life of the mother; second, in saving the life of the child; and third, in protecting the mother's health so that the strain of pregnancy and labor will have no undue effects on her after life. On the other hand, improper interference with nature may defeat the very object for which interference is undertaken. Although the subject is one of such great importance, it is a very difficult subject to treat systematically because of the various factors which enter into the choice of treatment, and because the personal equation of the individual attendant must be, in a large proportion of cases, the determining factor in deciding on interference.

For many years obstetric teaching has been open to the criticism that students are taught that 97%, more or less, of all obstetric cases will come to a normal satisfactory termination if left to nature, and that any interference with nature is contra-indicated, unless in the presence of some well-marked abnormality. This statement may be accepted as more or less true when we are treating labor among natural women, but the artificial conditions of our modern civilization have gradually brought about a change in the physical and nervous make-up of the patients with whom we have to deal, so that the old rule can no longer be fairly applied in a considerable proportion of patients. Furthermore, the development of aseptic technic has robbed surgery, whether obstetric surgery, or otherwise, of its principal danger, and obstetric textbooks and teachers have not kept pace with the increased safety of operations performed under modern conditions. I am willing to admit that for the man who has had no operative training and who, after entering practice, will apply forceps for the first time, obstetric surgery entails such danger to one or both patients that interference with labor by him should be considered as a last resort, but the man who has had an adequate training in obstetric surgery finds the traditions of obstetrics more and more obsolete, although he may find it hard to break away from his early teaching.

In considering this question, I assume that the men to whom this paper may be of value are the men who have trained themselves conscientiously in the technic of obstetric operating and can operate, not only at the right time, but in a proper manner, and, further, that they are conscientious enough to operate with the good of their patients as the only object in view. If these considerations are met honestly, I believe that obstetrics can be

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