THE MANAGEMENT OF FACE PRESENTATION.

By Edward Reynolds, M.D.,
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Face presentations are frequently caused by some one of the other mechanical complications of labor, such, for instance, as flat pelves, or small fibroids in the lower uterine segment; or they may be complicated by one or more of the accidents of labor, such as prolapsed funis, hemorrhage, or eclampsia. But the treatment of such cases should be primarily determined by the nature of the complication rather than by the abnormal presentation; and as the subject in itself is sufficiently long and its details sufficiently intricate for the scope of a single paper, I propose to limit myself to the treatment of face presentation pure and simple, and the opinions which I express must be interpreted as applying to uncomplicated cases only. So, too, I am addressing a paper to a society of experts, and I wish to state at the start that the position which I shall take is that which I think will yield the best results to men whose previous experience warrants a well-grounded belief in their operative skill; and my position is, therefore, not open to criticism on the ground that it might be dangerous in the hands of the inexpert. For the same reasons I shall omit all matters of technique, believing that such details would be only a waste of time for this Society. Even when so simplified, the subject is complicated enough to make a clear presentation of its details, in the several varieties of face labor, far from easy; but I think that the most satisfactory method will be

to discuss the treatment chronologically, *i. e.*, to take up the progress of face labor by stages, and to discuss the problems in the order in which they would come up in the course of a case.

First Stage; Unruptured Membranes.—At the very beginning of labor, with the membranes still unruptured and the presenting part unengaged, the temporary occurrence of a face presentation is not extremely rare, but, under favorable circumstances, the vertex is spontaneously re-established, in a large proportion of such cases, by the occurrence of a spontaneous flexion. This phenomenon is due sometimes to the contraction of the flexor muscles of the fœtal neck, sometimes to changes in the woman's posture and corresponding alterations in the fœtal axis, and sometimes to changes of pressure due to irregular contractions of the lower uterine segment. It is manifest that this possibility ceases when the face is once thoroughly engaged, or when the waters have drained away.

Treatment. If, then, a face presentation is detected while the conditions still render a spontaneous re-establishment of flexion possible, everything should be done to promote this most favorable result; further vaginal examinations should be absolutely interdicted, on account of the great importance of preserving the membranes, and the obstetrician should confine himself to a policy of watchful inaction, or should, at most, content himself with the adoption of postural treatment and attempts at furthering flexion by gentle external manipulations.

The patient should first be placed upon the side to which the abdomen of the child is directed, in the hope that, as the breech drops to that side under the influence of gravity, the relations between the axis of the child and the condyles of the occiput may be so changed as to permit the uterine pains to re-establish flexion. If this fails the woman should be placed in the knee-chest position, so that the presenting part may fall away from the pelvis, and should maintain this

position for the longest time possible, in the hope that flexion may occur under the action of the fœtal muscles. When this expedient is unsuccessful, flexion of the head by external manipulations after the method of Schatz should be given a fair trial.

If the vertex becomes re-established either by the efforts of Nature or by one of these minor artificial procedures, the membranes should be ruptured, the head should be crowded into the brim by pressure from above and held there till a firm engagement of the vertex has occurred.

If these measures fail, the greatest care must still be exercised to preserve the integrity of the membranes; for that the os should be raised to full dilatation, or at least to a condition of dilatability, by their activity is to be desired, not only because this result offers perhaps the only chance for a successful termination of labor by the efforts of Nature, but because even a partial completion of the dilatation by the pressure of the membranes is often sufficient to render the artificial completion of the process a safe and easy, instead of a difficult and somewhat dangerous, matter. So long as the membranes persist, the care of the first stage should be left to Nature. We have left for consideration, then, only the treatment of early rupture of the membranes and of the second stage.

First Stage; Early Rupture of the Membranes.—Dry face labor is not only extremely unlikely to terminate naturally, but, in the small proportion of cases in which Nature is efficient, the fœtus is exposed to great danger from the pressure which the dilating cervix necessarily exerts upon the great vessels of its neck—a danger which is increased by the fact that the size of the small and tapering face is insufficient to effect the complete dilatation of the os, and that the neck must therefore enter into the cervix before it reaches its greatest size. If, then, the membranes rupture while the os is still small and rigid, the prognosis for the child under the care of Nature is so very unfavorable that,

in my opinion, the expectant policy should be abandoned and some form of operative treatment should be resorted to at once.

Treatment of Early Rupture of the Membranes. Two general plans of action are applicable to these cases. The face presentation may be changed into a presentation of the breech by some one of the minor forms of version, after which the case may usually be left to Nature; or the os may be manually dilated and the hand passed into the uterus, with the intention of either restoring the vertex by a manual flexion of the head or of performing an internal podalic version. The choice between these two plans must depend, primarily, upon the size and condition of the os at the time when the membranes rupture.

When the os is but little dilated and the cervix is but little, if at all, shortened, or if the cervix, though partly dilated, is still so rigid as to promise real difficulty in its manual dilatation, the production of a breech presentation by external or bipolar version is a very safe procedure for the mother, and will usually be easy if the attempt can be made immediately after the escape of the liquor amnii, and, if necessary, under anæsthesia; or, if these attempts fail, a bipolar podalic version can always be performed, under anæsthesia and in uncomplicated cases, if the os is large enough to permit the extraction of the foot, *i. e.*, when it easily admits the two fingers which are necessary to the performance of the operation.

As the production of a pelvic presentation by one or the other of these methods is so safe for the mother, their adoption as a routine measure would be the best treatment for all cases of early rupture of the membranes in face presentations, were it not that experience has shown that even external version has a certain intrinsic fœtal mortality, which is probably due to compression or tension of the cord, and that to this must be added the not inconsiderable fœtal mortality incidental to breech labor. This combined fœtal mortality is,

indeed, likely to be less than that of dry face labor, but is still so considerable that I think that this form of treatment should be reserved for cases in which the membranes rupture before the beginning of labor; and also for the few cases in which the rigidity of the cervix is so great that manual dilatation is likely to involve a risk to the mother which is sufficient to offset the chance of a restoration of the vertex, that may be gained by a dilatation of the os to a degree sufficient to permit the intra-uterine use of the hand. Extreme rigidity is necessary for the production of this degree of danger, and the field for the minor forms of version is therefore, for me, somewhat limited.

It is probable that some operators would prefer to use external or bipolar version and immediate extraction in all cases in which version is not likely to be ultimately necessary, but my own somewhat extensive experience with it leads me to believe that both laceration of the cervix and stillbirth are somewhat more frequent when these methods of version are used than even after complete manual dilatation and internal version.

I therefore prefer to treat such cases by manual dilatation; and since this operation never stretches the os to a size which is sufficient to relieve the neck from pressure during the descent of the face, I think that manually dilated cases should never be left to Nature, but that they should always be immediately subjected to the appropriate operative after-treatment of which I am shortly to speak under the head of the treatment of the second stage. The expedients of external or bipolar version are, however, of great value in rare cases, and the possibility of their performance should not be forgotten.

Treatment of the Second Stage.—When the membranes have persisted till the os is almost or wholly dilated, or when manual dilatation has been done, the subsequent treatment should be influenced mainly by the position of the chin; and for the sake of clearness I propose to discuss the

treatment of mento-anterior and mento-posterior positions separately and as if they were separate abnormalities.

Mento-anterior Positions. It is well known that a considerable proportion of face cases terminate rapidly and easily, and that in favorable cases the prognosis of face labor is but little if at all worse than that of normal labor; and it is of the first importance to be able to detect in advance the conditions which determine these favorable results. I think that it will be found on observation that in all these cases the os has been fully dilated by the membranes and that the chin is anterior, or that, at all events, a posterior position is so rare that the possibility of the occurrence of a rapid and easy labor in mento-posterior positions may fairly be omitted in a formal discussion of the subject. I think, too, that it will be found that such favorable results are further limited to that class of anterior positions in which the adaptation between the child and the pelvis is so easy that no considerable degree of moulding of the head is necessary to the passage of the brim, and that when much moulding is necessary the results will be, as a rule, unfavorable to the child.

The unfavorable influence of even moderately tight adaptation in face labor is easily explainable, not only because the delay incidental to the moulding process necessarily exposes the child to increased danger of disturbance of its circulation from pressure on its neck, but because, in face labor, the moulding processes are directed against that part of the brain which is least able to withstand pressure, so that when moulding is necessary the vitality of the child is likely to be compromised early in a large proportion of the cases.

Treatment of Anterior Positions. If these observations are accepted as correct, it follows that when the chin is anterior and the dilatation has been spontaneously accomplished by the membranes, the obstetrician should content himself for the time with a careful observation of the processes of Nature. If the head makes steady progress through the superior strait, there is then every probability of an easy and rapid

delivery; but even when the head descends steadily and rapidly the fœtal heart should be watched with the utmost jealousy, on account of the danger of compression of the vessels of the neck which exists throughout the whole of the second stage of face labor; in the event of any irregularity of the fœtal circulation the expectant policy should be at once abandoned.

When the face has once passed the superior strait, in an anterior position, its progress is ordinarily rapid and the difficulties of the case are greatly lessened, since, if interference becomes necessary, the application of forceps to an anterior position of the face within the pelvic cavity is always a safe and easy operation.

When the passage of the superior strait is not rapid, I believe that it may be taken for granted that if the child is to be saved it must be saved by an operation in at least a majority of the cases, and in the long run it is better to adopt a policy of interference as soon as there is any arrest of progress, and without waiting for a failure of the fœtal heart, in all these cases. This position is to be defended not only on the ground of the well-known advantages of operating while both patients are in good condition, but also because in face labor the moulding of the head which is intended to render the passage of the face easier makes all the preferable operative procedures more difficult and dangerous, and is favorable only to the very dangerous operation of the high application of forceps to the face as such.

When an anterior position of the chin is to be delivered by operative means, the expedients at our disposal are the application of forceps to the face as such, internal podalic version, and the restoration of flexion by the hand. Of these the last named is, for me, the operation of choice.

The application of forceps to the face (high) is so difficult, and so dangerous to the child, that it should always be reserved as a last resort. If version is to be performed it should always be preceded by manual flexion of the head,

when this is possible, because the projection of the occiput which is incidental to the attitude of the child in face presentation not only renders the version more difficult, but exposes the uterus to an unnecessary degree of danger. We have left, then, for consideration in uncomplicated anterior positions of the chin, only the operation of manual flexion, at all events as a primary resource.

As a preliminary to this, or any, intra-uterine operative treatment of the face, the half-hand should be introduced into the uterus and made to thoroughly palpate the pelvic brim, the walls of the lower uterine segment, and the presenting part, in the search for any mechanical complication other than the face presentation. If such is found, the choice of operation must be determined by its nature.

If the case is uncomplicated, the head should be flexed by the hand, and the vertex will then lie in an occipito-posterior position. The case may then be treated in any one of four ways: its further progress may be left to Nature; forceps may be applied to the posterior occiput; the occiput may be rotated to the front and left to Nature, or treated by forceps; or, finally, version may be at once performed.

The discussion of the appropriate operative treatment of occipito-posterior cases is certainly not germane to the subject of this paper, and I do not intend to enter into it, except in so far as it is modified by the fact that the occipito-posterior position in question has been produced by an alteration of a face presentation, and even this feature I propose to discuss very sparingly. Such occipito-posterior positions should never, I believe, be left to Nature, because when the well-known tendency to extension which is characteristic of occipito-posterior labor has once produced a face presentation, it can usually be relied upon to reproduce it, if left to itself. The choice between the application of the forceps to the posterior occiput, the rotation of the occiput to the front, when it may be left to Nature or treated by forceps, and the performance of a version, will then rest upon the peculiarities

of the individual case and upon the bias of the individual operator, my own preference being for rotation of the occiput to the front and the application of forceps for a first choice, and version for a second.

I believe, then, that when the case is operated on early, an anterior position of the chin is best treated by manual restoration of the vertex and a subsequent operative delivery; but, since every operator must expect to be called to neglected cases, my paper would be incomplete if I omitted to discuss their treatment.

Treatment of Neglected Cases. Such cases are likely to be complicated by one or both of two unpleasant factors—marked moulding of the head and a tonic condition of the uterine muscles. If the head has been delayed at the superior strait until it has become thoroughly moulded to the configuration characteristic of face labor, the restoration of the vertex is likely to be difficult, while, even if it is accomplished, a re-extension is almost certain to occur so soon as the forceps is applied. This manœuvre should therefore be ruled out for such cases. The rapid alteration of the configuration of a much-moulded face presentation, which is likely to occur during the extraction of the after-coming head after version, exposes the child to great danger of death from intra-cranial hemorrhage; but this danger is, in my experience, less than that which attends the application of high forceps to the face, and I therefore think that version, after such flexion as can be accomplished, is the operation of preference for much-moulded heads.

When both manual flexion and version are rendered impossible or dangerous by the existence of constriction rings in the uterus, or by a thinning of the lower uterine segment, the application of forceps to the face is justifiable in anterior positions of the chin, and is occasionally successful in saving the child. The fœtal mortality in delayed cases is, however, very great, and, as has been said, the advisability of avoiding it is the chief argument for an early operation.

Mento-posterior Positions. The prognosis of posterior positions of the chin under the care of Nature is so nearly always unfavorable that I think it is the best plan to subject all posterior positions to operative delivery; and there can be, in my opinion, no question but that it is an inevitable corollary to this principle that the operation should be performed as soon as the membranes have ruptured and while all the conditions are still favorable.

If the cervix is extremely rigid we must do an external or bipolar version; but, if it is already dilated, or if its condition renders manual dilatation advisable, we have at our disposal four operations—the application of forceps to the posterior position of the chin, rotation of the chin to the front and the application of forceps, immediate version, and the restoration of the vertex by flexion.

There can be no question of choice between these operations. The application of forceps to posterior positions of the face is never justifiable, on account of the mechanical difficulties which follow the entrance of a posterior chin into the pelvis; the rotation of the chin, and the application of forceps to the face anterior, should be reserved for a last resource; version, as before, should be preceded by flexion; while, on the other hand, in posterior positions of the chin, the restoration of the vertex by flexion results in the production of the favorable occipito-anterior position of the head, so that this is, in uncomplicated cases, the operation of choice beyond question.

When an unmoulded head has once been placed in a well-flexed anterior position of the vertex there is comparatively little likelihood of its re-extension, and the case may usually be left to Nature. The patient should be allowed to recover from her anæsthesia, and the head should be held in position by external pressure till engagement of the vertex results. Though natural delivery will then frequently occur, such cases must nevertheless be carefully watched till the head has fairly passed the brim, and if re-extension does occur the

patient should again be anæsthetized, the head re-flexed and delivered by forceps. If for any reason the forceps operation fails, version can, of course, be resorted to, but will seldom be necessary.

Treatment of Neglected Cases. The likelihood of re-extension in anterior positions of the occiput is so small that flexion and the application of forceps may be resorted to in posterior positions of the chin whenever the moulding of the head is not excessive; much-moulded heads should, however, never be left to Nature after their flexion, but should be delivered by forceps immediately after the restoration of the vertex. Excessively moulded heads are so likely to re-extend during extraction by forceps that they are best delivered by version, unless the condition of the uterus rules out this operation.

When both flexion and version are contra-indicated, manual rotation of the chin to the front, and the application of the forceps to the face as such, is the only remaining procedure. That even this operation may occasionally be carried out with safety to the child I know from a case which I once had the pleasure of seeing with Dr. C. M. Green. By the successful performance of this manœuvre, he succeeded in extracting a living child in a long-neglected hospital case, in which both manual flexion and version were rendered impossible by the existence of a small fibroid in the lower uterine segment and a tight annular constriction of the uterus about the chest of the child and just above the occiput.

The treatment of mento-posterior positions which remain persistently posterior after their entrance into the pelvis as such, is an interesting branch of the subject which I am compelled to pass over, not only from lack of time for its consideration, but because I have had no personal experience in such cases, and am consequently ill-qualified to discuss them.

CRANIOTOMY *vs.* ABDOMINAL DELIVERY.—When, in any case of face presentation, all of the manœuvres which have

been already recommended are found to be impossible, the vitality of the child will almost invariably have been seriously, if not hopelessly, compromised; and the mortality of abdominal operations performed at such a stage of labor has always been so great that the risk to the mother is greater than we are justified in subjecting her to for the sake of an exhausted fœtus. The disgusting alternative of craniotomy in the living fœtus is then the only operation indicated; but it may be added that this can only be forced upon us as the result of bad obstetrics.

SUMMARY.—The conclusions by which my own management of face cases is directed, and which I wish to present to you for discussion, are as follows: When a face presentation is detected before the engagement of the face, and before rupture of the membranes occurs, there is always reason to hope for a spontaneous restoration of flexion. The obstetrician should therefore confine himself to the adoption of postural treatment and gentle external manipulations till the occurrence of engagement or the rupture of the membranes renders a spontaneous flexion improbable.

When the membranes rupture early, external or bipolar version should at once be performed, in any case in which the condition of the cervix renders manual dilatation of the os dangerous; but, in ordinary conditions of the cervix, manual dilatation should be undertaken immediately after the rupture of the membranes, the head should be flexed by the hand, and the subsequent treatment should be operative, but its details should be dictated by the position.

When the membranes persist until the cervix is completely dilated, an anterior position of the chin should be left to Nature, so long as its progress is rapid and the fœtal heart is steady; but when any irregularity of the fœtal pulse, or an even moderate delay at the brim, has been detected, the patient should be anæsthetized and the head flexed.

The posterior position of the occiput so produced should not be left to Nature, but should be treated either by version

or preferably by rotation to the front by the hand; it may then be left to Nature or treated by forceps.

Posterior positions of the chin should never be left to Nature, even though the os has been completely dilated by the membranes, but should always be subjected to immediate manual flexion.

The anterior position of the vertex which results may then be left to Nature, or may be delivered by forceps.

In neglected cases in which manual flexion is contra-indicated version should be chosen, if it is practicable, whatever the position of the chin; if version is contra-indicated, such cases should be treated by the immediate application of forceps to the face as such, but in posterior positions of the chin this operation should always be preceded by a rotation of the chin to the front.

In cases in which the face presentation is due to some other mechanical obstruction the treatment should be determined by the latter factor.

The abdominal methods of delivery are never indicated in uncomplicated face labor.

THE MANAGEMENT OF FACE PRESENTATION.

By Charles Jewett, M.D.,
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My views of the treatment of face presentation assume two things:

1. The mechanism of face birth is abnormal and may of itself constitute a serious complication of labor.

2. Presentation by the face is more frequently associated with other complicating conditions than are vertex births, *e. g.*, small pelvis, large child, prolapse of small parts.

The mechanism tends to dystocia. It is not necessary to assume with Penrose that the propelling force is not transmitted to the head as fully as in vertex presentation; nor, in mento-anterior positions, is it in anywise less effectual for propulsion. In the latter position the long diameter of the head conforms nearly to the axis of the birth-canal, and the driving force acts in the line of descent. When, however, the chin confronts the posterior half of the pelvis, the expelling power is in part lost, being expended more or less directly against the posterior planes of the pelvic wall. In other words, complete adaptation of the head to the pelvis is impossible in mento-posterior positions.

More important is the difficulty of rotation. The downward progress of the head is arrested before the chin rests upon the floor of the pelvis. The action of the inclined planes of the pelvic floor in directing the leading pole forward under the pubic arch is not as fully developed in extension as in full flexion of the head. In delivery by the face, therefore, the

forces concerned in the birth act at a mechanical disadvantage.

Yet it must be granted that the difficulty which proceeds from the malpresentation alone is but small—in mento-anterior cases is practically *nil.* In wholly uncomplicated face presentations spontaneous birth is the rule. The labors are somewhat longer, but the risk to the mother is not materially greater than when the occiput leads. The mortality for the child is increased, and the children who survive the birth doubtless suffer more frequently from intra-cranial hemorrhage and its effects.

The graver difficulties of face birth arise chiefly from its complications. It is in disproportion between the head and the pelvis, prolapse of fœtal members, or failure of the pains that the emergencies of this presentation are most frequently encountered. But these anomalies are much more frequent in face than in vertex births. According to Winckel, pelvic contraction is found in 21 per cent. of face presentations, and the children are larger than in vertex cases. Prolapse of the small parts occurs in from 12 to 19 per cent., and the pains oftener fail than in occipital presentations. The mortality for both mother and child is accordingly much greater in face than in vertex presentation.

While, therefore, in a large proportion of cases presentation by the face may be trusted to an expectant management, it is not always to be treated as a normal labor. Labors in which the maternal death-rate is approximately one in seventeen, and the fœtal one in ten, are not all to be contemplated with folded hands.

TREATMENT.—One of the first essentials in deciding the course to be pursued is an exact knowledge of the relative size of the head and the pelvis. When this question cannot be satisfactorily settled by the usual external and internal methods, after sufficient dilatation, the patient should be placed under an anæsthetic, and the hand carried into the passages alongside the head for more accurate exploration. Other conditions

which may have an important bearing on the treatment of the case, and which might otherwise escape detection, may at the same time be discovered with two fingers, or the entire hand, in the uterus.

For treatment we make two general classes of cases:

1. Those in which the head is movable at the brim, or can be made so by pushing it up.

2. Those in which the head is permanently engaged at the pelvis.

In cases of the first order, when the chin confronts the anterior portion of the pelvis, interference is not, as a rule, required in the absence of disproportion between the head and the pelvis and prolapse of small parts. The case can be trusted to go on as a face birth. Should the pains fail, a forceps delivery will present no special difficulty. With the head relatively large, or the cord or an arm prolapsed, version will, as a rule, best serve the interests of the child.

When the chin is turned toward the posterior half of the pelvis, with all other conditions favorable, spontaneous birth is still generally possible. It cannot be denied, however, that the child is more exposed to injurious pressure than in vertex births; unforeseen complications may arise in the cavity, and, at the best, labor is more prolonged and difficult. I prefer, therefore, in practically all cases of mento-posterior position, to reduce the presentation, if possible, to a simpler one. The first choice is, as a rule, to bring down the occiput. The operation while the head is freely movable at the brim is not usually difficult, and, I believe, if judiciously managed should result in no increased risk to the mother—certainly none to the child. On the other hand, if the attempt succeeds it converts a difficult or impossible into a comparatively easy labor. Anæsthesia is, of course, necessary. Attempts at correction failing or re-extension occurring, the trunk may, I believe, in most cases be rotated by backward pressure upon the anterior shoulder, aided by external manipulation till the chin sweeps to the front, and the case terminates as a mento-anterior face birth.

Conversion from face to vertex may be tried even after the face has sunk to some distance into the pelvic cavity, if the labor is arrested. With the aid of postural measures, under anæsthesia, it is sometimes possible to lift the head out of the pelvis after it has become moderately fixed in the excavation. In cases of disproportion, or prolapse of fœtal members, the same rule applies as in mento-anterior positions.

When an expectant management is adopted by choice or necessity, rotation is promoted by keeping the patient on the side which the chin confronts. During dilatation a colpeurynter may do important service in preserving the membranes, if they have not already been ruptured.

In the second class of cases—those in which the face has become too firmly fixed in the pelvis to be disengaged—no active interference is to be practised except for cause. In the absence of other complications spontaneous evolution takes place with few exceptions. Rotation is to be favored by placing the patient on the side to which the chin points, and, by upward pressure on the forehead or downward traction on the chin during pains, to promote extension.

The most rational and effective procedure in the cavity is that of Penrose. The hand passed behind the chin and pressed firmly forward during the pains, acts as an artificial pelvic floor, or rather as one-half of it, and frequently by this simple means the chin may be made to sweep promptly forward under the pubic arch. The vectis has no advantage over the hand. Here, as in general, manual measures are better than instrumental. When the hand fails, the forceps as a rotator will seldom succeed, and then only at great risk to the maternal soft parts. When the forceps must be used to bring down the face, rotation should be favored rather than forced. The forceps operation in posterior face cases is one of the most difficult and dangerous of instrumental deliveries, especially for the child. With the tips of the blades well forward, the traction force is expended mainly upon the occiput; the occipital pole is drawn down, and the long diameter of the head may become fixed

in the pelvis by partial flexion. On the other hand, with the blades farther back, the neck of the child, and possibly the cord, are exposed to injurious pressure. When the long diameter of the head lies in the transverse of the pelvis, the prospect for the child in forceps delivery is still more unfavorable than in ordinary positions. In an experiance in eighteen cases, reported by Salomon and cited by Von Weiss in a recent paper,[1] seventeen of the children were lost.

The alternatives of forceps must be considered when, after careful trial with forceps, the head is found immovably fixed in the pelvic basin, and one of them—symphysiotomy—may justly be given the preference where forceps extraction is possible only with extreme difficulty. The child being feeble, and particularly if the condition of the mother is unfavorable for opening the symphysis, the uncertain chances for the child must not be permitted to further imperil the interests of the mother. Here the maternal mortality under craniotomy should be *nil*. With a viable child and the woman in good operable condition, symphysiotomy has the first claim. In this class of cases the division of the pubic joint, done with the high, short incision of Morisani, should yield the best results possible to that operation. A moderate separation of the joint, such as may be had without division of the inferior ligament, will, I believe, afford ample space for easy correction of the malpresentation and prompt delivery. It would be unfair to cite the general mortality of symphysiotomy as an argument against the operation in these, the most favorable kind of cases for pubic section.

Of operative methods for correction, that of Schatz is, for its simplicity, always worthy of trial in suitable cases. Should it fail, as it very frequently does, no harm will have been done. It is unfortunately not so easy of performance in actual practice as upon the phantom.

Conjoined manipulation by the first method of Baudelocque

[1] Volkmann's Sammlung, No. 74.

has the advantage over the second that it can be undertaken early in the labor and that it entails a minimal risk of infection. Baudelocque's second manipulation, hooking the occiput down with the internal hand while the chest is thrust upward and backward with the external one, is more likely to succeed.

The combination of the Schatz procedure with the first of Baudelocque, with the aid of an assistant as practised by Ziegenspeck, or in two separate acts as done by Thorn, still further increases the chances of success with no additional risk to the mother.

When it is deemed advisable to attempt correction after the head is partially fixed in the excavation, advantage may be gained by placing the patient on the back with the hips in extreme elevation. The head may thus be pushed out of the pelvic basin with much less difficulty than in the usual obstetric position. The genu-pectoral posture, while perhaps more effectual, is less manageable.

The Trendelenburg posture, now so much used in gynecological practice, will, I believe, be found a convenient substitute for the genu-facial in many other obstetric applications.

For either correction after engagement, or for forceps-extraction, Walcher's position may lend important help. When correction is the object after the head is partially fixed in the cavity, this position may be combined with elevation of the pelvis. With the hips at the edge of the table and the thighs hanging in extreme extension, the sacro-pubic diameter at the brim gains from five to thirteen millimetres. This I have verified by experiments upon the cadaver and by measurements in the living subject.

THE MANAGEMENT OF FACE PRESENTATION.

By Edward P. Davis, A.M., M.D.,
Philadelphia.

The frequency of this abnormality in gestation is variously estimated at 1 in 130 confinements, by German observers; 1 in 276, by French; and 1 in 292, by British obstetricians. A hint, I think, may be taken from these statistics as to the methods of obstetric diagnosis employed in the leading maternities of the world. It is quite possible that the greater frequency with which this abnormality is said to occur among German patients is not to be construed into a belief that German women have more face presentations in labor than do British women, but that, owing to the practice of palpation and auscultation before labor, German obstetricians more often diagnosticate the abnormality than do English and French physicians. The importance of early diagnosis of this complication is indicated by the success of spontaneous labor in these cases, and the mortality which attends labor requiring instrumental aid. In a recent interesting paper by Von Weiss (*Archiv f. Gynäkologie*, 1893, No. 25) forty-six cases are narrated of spontaneous delivery attended with no mortality. Zeller, in forty cases, terminating spontaneously, lost no mothers and but two children. While these statements are not exhaustive as to the advantage of spontaneous delivery, the fact remains that such a termination of labor in face presentation is most desirable. Methods best adapted to secure this result must be based upon early diagnosis, and hence the importance of perfecting the knowledge

and practice of palpation. The treatment best adapted to secure spontaneous labor in face presentation consists in retaining the membranes unbroken until the time of spontaneous rupture; in sustaining the patient's strength and conserving her energies by suitable feeding, stimulation, and anodynes; and in placing her in such a posture as to favor the rotation of the chin anteriorly. When the face looks toward the left side of the mother's pelvis, she should lie upon the left side, her thighs flexed, and the uterus brought as nearly as possible with its long axis corresponding to the axis of her body during labor-pains. Should the face look toward the right side of her pelvis she should lie upon her right side. The relation of cause and effect which has been found to exist between obliquity of the uterus in the mother's abdomen, and face presentation, renders the maintenance of the uterus in a favorable posture during this complication a matter of considerable moment. It is quite possible in such cases for a face presentation to be spontaneously changed to a vertex, and even for the occiput to rotate spontaneously to the front, if these precautions are observed. The administration of such drugs as tend to maintain efficient uterine contractions is certainly indicated in these cases before the membranes rupture.

As soon as dilatation is complete, the obstetrician is to choose between radical interference by version, or an effort by the methods of Baudelocque and Schatz to correct the face presentation by converting it into a vertex. His choice should depend upon the size and shape of the mother's pelvis, the comparative size of the fœtal head, and the condition of the pelvic floor. When no disproportion exists between the head and the pelvis, and when the pelvic floor, although elastic and resistant, offers no undue obstacle to the mechanism of labor, it is certainly proper to allow the head, under good labor-pains and with good extension, to descend to the pelvic floor in face presentation, so that an opportunity may be given for the mechanism of labor to proceed spontaneously.

Where, however, there is a disproportion between the head and the pelvis, as evidenced by pelvic proportions less than the average, ascertained by pelvimetry, or a large fœtal head is recognized by palpation and a thorough vaginal examination under an anæsthetic, the case becomes quite different. The results of forcible delivery in face presentation under these conditions are anything but satisfactory. The literature of the subject abounds in illustrations of difficult deliveries by forceps, craniotomy, and, in some cases, by version, in which the life of the child has been lost and the mother seriously injured. In the light of our present knowledge, the duty of the obstetrician lies in completely changing the presentation, if the pelvis be roomy, by podalic version under chloroform-anæsthesia, or in so enlarging the pelvis that the mechanism of labor in face presentation can continue. Podalic version in face presentation is a familiar expedient, and is, in well-selected cases, a prompt and efficient method of treatment; symphysiotomy is a procedure of too recent date to occupy an established place in these cases in the resources of obstetric art.[1] My reasons for considering this a rational procedure are as follows: Personal observation in four symphysiotomies done for disproportion between the head and pelvis has led me to remark the decided increase of the oblique diameters of the pelvis which follows the separation of the pubic joint. In three of the four cases, the fœtal head presented in an occipito-posterior position—in two cases the right occipito-posterior, in one the left. In one of these cases the head presented by the right parietal bone before the pelvis was opened. Remembering the observation made by many obstetricians that face presentation is often developed out of occipito-posterior positions, it seems to me rational that any surgical procedure which should enlarge the oblique diameters of the pelvis, and which naturally favors the descent of the occiput in the arc of the pelvic curve lying between the sacro-

[1] Under date of June 18th, Dr. R. P. Harris writes me that he knows of no case of face presentation in which symphysiotomy was performed to rectify the position.

iliac joint and the spine of the pubes, would afford rectification of this abnormal presentation. The three cases of occipito-posterior position following symphysiotomy were readily delivered without injury to mother or child. Obstetricians are familiar with the facility with which faulty presentations of the head and shoulders may be remedied when these two conditions are present: first, complete anæsthesia of the mother; second, a pelvis of good size in its oblique diameters. Reasoning from my experience in the cases cited, these conditions are present after symphysiotomy; and were the spontaneous progress of labor in this presentation to fail, I would much prefer, if the pelvis was of good size and the head not impacted, to perform podalic version; or, if the head was impacted, and disproportion between the head and the pelvis sufficient to occasion difficulty in labor existed, face presentation persisting, I would hope for a favorable result from symphysiotomy, converting the face into a vertex presentation and delivering the occiput in the manner most easily available after the pubic joint had been opened.

DISCUSSION.

Dr. Charles P. Noble, of Philadelphia.—My name was put down for a paper without my knowledge, for this is a subject with which I am not very familiar, nor have I met with many cases of face presentation. The papers read undoubtedly present the subject in the best way, and I am practically in accord with what has been said. In neglected anterior face presentations, where the head has already descended below the brim or has become engaged, the author of the first paper recommended version after the waters had drained off. Since we know that the risks of version are very considerable under such conditions, I would suggest this condition as the proper field for symphysiotomy in the interest of both mother and child. Also, that in cases of posterior positions, with the head resting within the cavity of the pelvis, if the child is still alive, I would suggest symphysiotomy in preference to embry-

otomy upon the living child. I simply wish to make the suggestion that those are two conditions proper for the employment of symphysiotomy.

Then with regard to the use of the word "conservative" by Dr. Reynolds. I think that this is the most abused word in medical literature, and if it had been omitted from the paper and the term "expectant," or "do-nothing," or "let-alone," had been used in its stead, I would have derived nothing but pleasure and profit from listening to his paper.

Dr. R. A. Murray, of New York.—In considering this question I think that it is a vital point to look upon face presentation as an abnormality, and the first thing to do is to investigate why that abnormal presentation exists. It occurs, not as a mere accident from the position of the fœtus in the uterus, but because of the disproportion between the size of the head and the diameters of the pelvis. This cannot be determined with the finger or the pelvimeter alone, but requires an examination, first of the pelvis, then of the head. The point brought out in some of the papers should be emphasized, that the patient should be put under an anæsthetic and the hand introduced into the vagina so that we can determine the size and conformation, as well as the diameters of the pelvis, and also, as far as possible, the size of the fœtal head. Beside these, one of the best reasons is that when the hand has been introduced, we have immediately the means of rectification, and usually rectification should take place at the superior strait. Of course, neglected cases must be treated as they present themselves. Rectification by flexion, however, is not always the best means, for this reason: As I have said before, there is generally disproportion between the size of the head and the size of the pelvis, so that we should consider, while the hand is in the vagina, whether it is not better to proceed to version so as to give the child the advantages of the diminished diameters of a breech delivery; and we also have the opportunity to place the bi-parietal diameter in relation to the greatest diameter of the pelvis. In that way many children, I believe, can be saved which might otherwise be lost.

Frequently when the cervix has dilated the cases can go on to spontaneous delivery, but I am of the opinion that spontaneous

delivery can take place only in that class of cases in which the cervix dilates of itself.

In cases which have been mismanaged, Dr. Davis struck the keynote when he said that in many we can probably save the child by symphysiotomy. In a great many of them it is impossible to turn. By symphysiotomy we can certainly greatly increase the oblique diameters. In a few cases, in which the chin is posterior, we may attempt reposition or even extraction of the head with forceps, without enlarging the pelvic diameters. Craniotomy under these circumstances is, of course, an easy operation and should have no mortality. It should have no mortality anyhow; but in these cases it is especially easy.

Unless we see the patient very early, or there is some other complication, I think that Cæsarean section is not necessary. According to my observation, we have far fewer cases of face presentation than on the other side, especially in Germany, if we may judge by the statistics presented to-day. However, here such cases are not diagnosed early. The mortality for the child has been much larger, I think, than has been stated in the books. But, by introducing the hand for the purpose of making an examination, by flexion and version, and, if necessary, by symphysiotomy, we can certainly reduce the mortality, and by the former of these measures may have more spontaneous deliveries.

Dr. H. D. Fry, of Washington.—I have enjoyed the papers very much. There is one suggestion which I wish to make and which is in line with a method referred to by Dr. Jewett. We all know the great assistance in turning obtained by means of the genu-pectoral position. Although the head has descended into the pelvis, it can even be pushed above the superior strait and manipulations can be carried out in this position which would be impossible otherwise. Now, the great objection to the genu-pectoral position in obstetrical work is the difficulty of applying it with the patient under deep anæsthesia, which is necessary in order to have success with version. I have found it almost impossible under these circumstances, without four or five assistants, to hold the patient in the position after she has once been placed in it. The suggestion which I wish to make is

that we use the Trendelenburg posture which is so commonly applied in gynecological work. The thought came to me in a recent case of mento-posterior position in which, however, it did not prove necessary to apply the method. In the lying-in room one might place an ordinary chair upside down across the patient's bed, put a pillow where her hips would come, and draw her legs up over the bottom of the chair. This position, which might be applied with one assistant to give the anæsthetic, would, I believe, aid very materially in any manipulation, whether in flexion of the head or some form of version.

I was somewhat surprised to hear Dr. Reynolds speak of performing version by combined external and internal manipulation after escape of the amniotic fluid. I have never attempted it under these circumstances and am glad to hear that it can be accomplished. A condition considered necessary for the success of this manœuvre has been unruptured membranes.

Another point which has been brought up in the discussion, and to which I wish to refer, relates to the performance of symphysiotomy in face presentations. I can see that the operation might facilitate delivery in mento-anterior positions, but I do not understand what good the operation *per se* can do in mento-posterior cases. The obstacle to delivery here is the depth of the posterior pelvic wall, and division of the symphysis cannot diminish that.

Dr. H. T. Hanks, of New York.—I formerly had a large obstetric practice; at the present time I am occupied more in the department of diseases of women. Still, I am often called in consultation to-day in difficult labor cases, and I have seen in my own practice, and in the practice of my friends, a goodly number of face presentations. From reading, and from my own experience, I came to the conclusion many years ago that there were two or three rules which should always be followed in the management of face presentations. I have always tried to teach them to my younger friends, who called me in consultation in this class of cases.

1. Be sure that you have a face presentation.

2. If the forehead is front, and the chin posterior, at or above the promontory, push the chin upward with the fingers of one

hand in the vagina, and at the same time push the forehead upward by forcing the occiput downward with the hand above the pubes. Use gentle but continued pressure until this is accomplished, and the result is that the child's head will be brought into the first or second position.

3. If the chin is anterior, and the forehead posterior, above or at the promontory of the sacrum, place the patient in the knee-chest position and push the head back from the brim and give Nature a chance to change the presentation. The back of the child, if the bag of waters has not broken, will generally rotate to the mother's front, and if the patient keeps this position for a full half-hour, the child's head will again present in a less difficult manner. Chloroform should be resorted to if the waters have escaped and the uterus will not allow the child to rotate.

But, I am sure that we shall all be happy to hear from our President; for he has forgotten, possibly, more than some of us ever knew of this exceedingly interesting and important subject.

THE PRESIDENT.—There is nothing new to be said, as the subject has been so fully presented by those who have preceded me. I am very sorry that it seems to excite so little interest in the Society, but we all know that gynecological surgeons give too little attention to obstetrics. Yet nearly all respond to obstetrical calls as consultants, and I would like to have more of them know that it is not an easy thing to flex the head or to rotate the chin to the front if directed posteriorly; and I suppose that few are aware that if the chin is turned to the rear, the application of the forceps, either to rotate the head or for extraction, is going to be a very difficult matter.

I respond to the invitation to make some remarks especially because the only case in which I have performed symphysiotomy was one of face presentation. The medical attendants had applied forceps. The head was transverse. Before they had finished with the case they had broken the child's jaw, had cut deep gashes into the scalp, had torn the lower segment of the uterus, had cut with the forceps deeply into the vaginal tissues, and had then sent the patient to the Maternity Hospital in a dying condition. Now, there was not any real expectation of rescuing the woman by performing symphysiotomy, yet, as I could not

deliver with the forceps and version was out of the question, I decided to try that as the least serious procedure. The patient's temperature was 103° F. The interesting point in the case was the fact that after the symphysis was divided, the difficulty of flexing the head entirely disappeared. The forceps was then applied and the woman was delivered successfully. Of course, performing symphysiotomy does not cure a dying woman, and death took place within twenty-four hours after the operation, but the case carried with it a certain amount of instruction.

Dr. M. D. Mann, of Buffalo.—I would like to say a word on this subject, because I hold somewhat radical views. I do obstetric work only in consultation, and therefore the cases which I see are usually bad ones. An experience with a good many cases of face presentation convinces me that nearly all can be treated best by reposition of the head. I can see no reason why every case of face presentation should not be treated in that way. Face presentation is admitted to be abnormal; the labor is longer, and, while the child may come through all right, yet all will admit that the dangers are somewhat greater than in ordinary presentations. Now, if this is true, why should we not correct the position, if possible, in every case as soon as it is recognized? I believe that it is possible in almost every one. Prejudice against correcting face presentations has come down from pre-aseptic days, when the introduction of the hand into the uterus was considered dangerous. I do not believe that now the skilful introduction of the hand should be attended by any danger whatsoever; at any rate it is not nearly so dangerous as to let the face presentation alone. I would say, therefore, that every case which is seen before the face has become firmly wedged in the pelvis should be treated by reposition of the head. I have done it many times, and have found it a simple and easy thing to do.

Another point. Dr. Reynolds thinks that cases of mento-anterior position will terminate without interference. Undoubtedly they will; but a good many of them, after they have gone on a certain length of time all right, will develop trouble. But if you replace them, you have the occipito-posterior position, which in itself may give trouble. I believe, therefore, that in these cases,

when we have gone so far as to replace the head and have the occiput posterior, we should turn the head around. Only a quarter of a turn is necessary, when it will become a case of occipito-anterior position—a normal presentation in which the chances of the woman and child are better than they can be under any other circumstances.

If there is a mento-posterior position we may look upon it as an impossible labor. There are few recorded cases in which the labors have proceeded without interference—where the child was premature and the pelvis very large. These cases, therefore, if met with early, should be treated at once by reposition of the head. I have done it several times. Once I failed, and for a very curious reason. The child for three days after birth lay with the head drawn back, apparently from spasm of the muscles of the back of the neck. I tried my best to replace it before birth, but could not, and the retraction persisted, as said, for three days after birth; the child, however, recovered. That is the only case in which I have failed to replace the head in a case of face presentation.

As to the matter of postural treatment, I think that due credit should be given a physician in Buffalo. Dr. Hauenstein wrote a paper fifteen years ago advocating "postural position" in face presentation. He advised putting the patient in the genu-pectoral position before attempting replacement, as the manœuvre could afterward be carried out without trouble; he reported a large number of cases, for his consultation practice was large. He was accustomed to replace in every case. I believe, however, that we can accomplish the same purpose by anæsthesia, and in a better way. It is very hard to put the woman in the knee-chest position; what is accomplished by it is simply this, that the child is pulled away from the pelvis by gravity and relaxation of the uterus. This can be accomplished just as well, I think, by anæsthesia; by paralyzing the muscles completely, there is no resistance, and you can lift the head out of the pelvis without difficulty.

I have had no experience with symphysiotomy in face presentation.

Dr. Reynolds.—The first point to which I wish to reply is

that relating to symphysiotomy. I did not mention symphysiotomy at all, for the reason that I had ruled out of my paper the consideration of deformed pelves, which seem to me to furnish the chief indication for symphysiotomy. I cannot believe that this operation is ever indicated in uncomplicated face labor, unless in the treatment of persistent posterior positions within the pelvis, and that is a subject which a lack of personal experience forbade me to enter upon.

As regards the application of symphysiotomy to long-neglected cases, I do not believe that it has yet been shown to be a sufficiently innocuous proceeding to make it justifiable for the sake of saving a child whose vitality has already been seriously compromised, and I think that but few long-neglected cases in which the vitality of the child has not been seriously lowered will ever be found. I would rather sacrifice a few such children than perform a late symphysiotomy.

With regard to Dr. Noble's statement that I had recommended version in anterior positions of the chin after the liquor amnii had escaped, one must make simple and clear statements in a formal discussion of the subject. That there are cases in which version can be easily done after the liquor amnii has escaped is, I think, undoubted; that in severe cases of the kind the application of forceps to the anterior chin will be easier, I feel sure; and I think that one must leave such clinical decisions as these to the judgment of the attendant in the individual case.

As to another point made by Dr. Noble I agree with him, and shall be happy to correct the misuse which I made of the word "conservative."

Dr. Murray spoke of the introduction of the hand within the uterus for determining the relations between the child and the pelvis. I believe that the introduction of the hand to the pelvic brim is the only way in which safe information as to the shape and contour of the pelvis and its relation to the child can possibly be obtained.

Dr. Fry speaks with surprise of my reference to external version as being possible after rupture of the membranes. If I remember rightly, what I said was that external or bipolar version is usually easy if performed, under anæsthesia, in uncom-

plicated cases, immediately after rupture of the membranes. I have certainly seen a number of cases in which it was easy to do either an external or bipolar version, when the patient was anæsthetized immediately after rupture of the membranes and before retraction of the uterus had set in. I would never undertake an external version when sufficient time had elapsed to permit of any retraction of the uterus, but I have several times done bipolar podalic version when some retraction of the uterus was already present. There are a considerable number of cases in which the external hand can crowd the breech down so far that, with the whole hand in the vagina and two fingers passed up through a small os, a foot can be seized and the child can be turned, practically as is done in internal podalic version.

Dr. Mann failed to understand me with regard to occipito-posterior positions. I meant—and, I think, stated—that, in my opinion, the occipito-posterior position produced by alteration of an anterior position of the chin should never be left to Nature, but should always be delivered, either by rotation and forceps or by version.

I am very much pleased to see that the point to establish which I really wrote my paper has been advocated by everyone who has spoken, namely, that manual flexion of the head is a trifling operation, and that the well-known high fœtal, and rather high maternal, mortality of face labor is due to too much expectant treatment before operating, and not to the performance of the major operations *per se*. I heartily believe that it would be better to adopt the rule of doing manual flexion in every case of face labor than to adopt a rule which would lead one to wait too long for natural delivery; but I do think that there is quite a considerable proportion of face labors in which, with complete dilatation, the chin anterior, and the head not too large for the pelvis, an expectant course of treatment is better than manual flexion; and I believe further that the obstetrician should be capable of detecting those cases, or, if he makes a mistake in thinking that he is in the presence of one, he should be able to recognize his mistake early enough to still do a manual flexion.

Dr. Noble asked permission to state, in connection with Dr.

Davis's remarks on symphysiotomy, that the last time when he had performed this operation the case was a brow presentation—almost a face presentation. Forceps had failed; version had been attempted, and had likewise failed; yet extraction was extremely simple after symphysiotomy.

DR. DAVIS.—The question which I asked Dr. Harris, of Philadelphia, was whether symphysiotomy had been done in face presentation, not as a last resort in neglected cases, but deliberately chosen as an elective operation, and Dr. Harris's reply was that symphysiotomy had not been elected as an operative procedure in face presentations. The case reported by our esteemed President was a brow presentation in which the symphysiotomy was done, but the woman was *in extremis.*

The point which I make is this: It is much better to enlarge the pelvis when disproportion exists between the head and the pelvis. One may have a pelvis of large size to deal with; but, if the head is so much larger that it cannot enter the pelvis in the normal mechanism of face presentation, and we do not feel justified in performing Cæsarean section, it is much better to enlarge the pelvis by the comparatively simple operation of symphysiotomy, to allow the head to descend, to rectify its position by manual flexion, and then to terminate the case by forceps as indicated.

THE PRESIDENT remarked that he had reported his case simply to show what could be accomplished by symphysiotomy. He had been perfectly surprised at the manner in which it had caused the difficulties of delivery to disappear.