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THE MODIFIED SCANZONI MANEUVER IN THE TREATMENT OF VERTEX-OCCIPITO-POSTERIOR POSITIONS*

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THE occipitoposterior position is without doubt the most important complication of obstetrics. Important, not in respect to the maternal mortality associated with its occurrence as compared to that of some of the more infrequent but more serious conditions of the mother, but on account of its extremely frequent occurrence; the apparent inability of a large percentage of physicians who practice obstetrics to properly manage such cases, the fetal morbidity and mortality and maternal morbidity as well as the unnecessary suffering and fatigue of the patient resulting from mismanagement. In the management of this complication the physician has fallen so far short of the possibilities of treatment that the posterior position still remains the most mismanaged obstetric condition. On account of the extreme frequency of this complication more damage has probably been done in the course of treatment than in all other obstetric complications put together. And yet it is a condition which may be easily met and the case handled to the utmost satsifaction and with excellent results if proper methods are used.

To one who has carefully made a diagnosis of presentation and position early in labor, it is apparent that the occipitoposterior position occurs far more frequently than the usual statistics would lead us to believe. For example, of my own cases 30 per cent have been occipitoposterior.

In many of these cases the head will rotate spontaneously to an anterior position, but in a large percentage of cases the rotation will

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occur only after hours of unnecessarily prolonged labor and in a considerable proportion of cases there will be either no rotation or the occiput will rotate posteriorly.

In this paper I am not concerned with that small group of cases in which, especially in multiparae, after full dilatation and rupture of the membranes the head rotates with the next pain or two. These will take care of themselves. However, altogether too much stress is laid upon the fact that spontaneous rotation commonly occurs and statements to this effect are used as an argument against the necessity or advisability of interference or assistance on the part of the obstetrician. Such arguments do not take into consideration the fact that rotation is usually associated with prolongation of the second stage of labor with the accompanying dangers, suffering and fatigue. To these dangers the patient is subjected unnecessarily for they may be avoided by the proper management of this complication.

This paper is presented to specialists, to obstetricians who are striving toward scientific advancement in their specialty, who are watchful for every means of relieving not merely those conditions which are associated with danger to the life of mother and child and with absolute obstruction to the passage of the presenting part, but also to simplifying labor to the extent of relieving the suffering of the patient, of allaying her fear of going through labor, and of reducing her fatigue to a minimum. To such it must be apparent that the occipitoposterior position is a distinct abnormality accountable for these unfortunate features and disasters of labor and that as an abnormality it should be corrected.

Does the fact that in a large percentage of posterior positions the head will eventually rotate, constitute a reason for allowing the labor to continue in the presence of such an abnormality, and a contraindication to resorting to methods which will convert the abnormality into a normal condition? I would answer with a most emphatic no. At the meeting of this Association held two years ago, in a discussion of forceps rotation in occipitoposterior positions, the statement was made by one of our members that if I had performed this maneuver in several hundreds of cases I had done it unnecessarily, because his statistics showed that in most of these cases rotation would eventually occur. He also stated that the modified Scanzoni maneuver was a dangerous and difficult procedure, often associated with damage to the child's head and laceration of the vaginal wall.

These statements more than anything else prompted me to again speak on a subject which I have presented to this Association on at least two previous occasions.

Obstetric practice has changed very materially in recent years, and in some instances the changes in procedure have without doubt been

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too radical. However, the general trend has been to make obstetric practice a more exact art and to get away from the former policy of indefinite watchful waiting, during which the physician did little or nothing for his patient. Every innovation has met with strong opposition and has been the subject of strenuous discussion as the minutes of this Association will show. However, many have been eventually adopted. Thus for several years these meetings furnished the occasion of bitter discussion of the advisability and even propriety of administering anesthesia during labor and yet what obstetrician is there present who does not at the present time administer anesthesia in labor?

While I do not agree with some of the more radical and revolutionary views advanced for the termination of labor, I am very firmly convinced that it is our duty as obstetricians to use all the skill which we possess in relieving our patients of the necessity of trying to overcome such an abnormality as the posterior position, which it may take them hours to overcome when we are able to correct that abnormality in a few minutes with safety for the mother and child. We must have realized long ago that most of the textbook indications for the termination of labor fell very far short of fulfilling the possibilities of first-class treatment. As a rule they consist of signs of danger to the life of the unborn child, signs of risk to the life of the mother, or utter fatigue; or absolute lack of advance of the head after a certain number of hours in the second stage of labor with no reference to or discrimination as to the cause of the lack of progress, but seldom is there reference to what we may call humanitarian reasons for interfering. However, aside from the question of humanity, prolonged labor in a case of occipitoposterior position must have a distinctly bad effect upon the mother, for extreme fatigue in labor not only carries with it its immediate dangers, but has a decided bearing on the convalescence of the patient, and prolonged pressure upon the head of the child may materially endanger its future development.

The writer believes very firmly in the correction of the posterior position early in the second stage of labor regardless of the fact that the head might rotate if the patient were allowed to continue in labor two or three or four or more hours longer. He believes that the obstetrician should do his part in such a labor and not expect his patient to do everything.

These statements are made with a full knowledge that a tremendous number of cases of occipitoposterior positions are greatly neglected.

The title of this paper is "The Modified Scanzoni Maneuver in the Treatment of Vertex-Occipito-Posterior Positions." However, I do not wish you to think that I consider this procedure the only proper way of handling such cases. There are in my opinion two approved

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methods of terminating labor when the posterior position exists, namely podalic version and forceps rotation and delivery. Each has its proper place. My selection of these methods is about as follows: In all cases in which the head is in the pelvic cavity, forceps rotation is used. If the greatest diameter of the child's head has not passed through the pelvic brim there is a choice between version and forceps rotation, depending largely upon the tonicity of the uterus and the amount of water present, both of which depend upon the length of time which has elapsed since rupture of the membranes. Roughly speaking these procedures are used in about an equal number of cases when the station of the head is high.

In the group of cases in which forceps are to be used, the modified Scanzoni maneuver stands out above all others as the operation of choice. I know of no obstetric procedure which is more fascinating and which gives such uniformly excellent results. It is not a dangerous procedure as has been stated and not a difficult procedure. At the Cleveland Maternity Hospital all members of the Visiting Staff use this method and all of the Resident Obstetricians are taught to perform it. Failures in attempts to perform this maneuver or injuries to the child or birth-canal are all due to improper technic. I am firmly convinced of the fact that the reason why the modified Scanzoni maneuver is not more generally used is because the technic is not understood and hence I shall devote the remainder of my time to pointing out the most vital points in the proper technic and some of the crude and improper methods of using forceps in occipito-posterior positions.

I. Full dilatation of the cervix should be present before forceps are used. Efforts toward pulling a head through an undilated os and against a resistant cervix must be condemned.

II. No traction should be made while the head is in a posterior position or during the rotation. The method of drawing the head down to a lower pelvic plane before rotating is absurd. The reason the head does not descend spontaneously is because of the posterior position. There are many cases in which a rapid and almost precipitate birth would take place were a normal anterior position present, and yet in these same cases the head may remain at the pelvic brim in spite of very forcible pains. To drag such a head down in a posterior position requires force which is absolutely unjustified. If the head were rotated it would descend with practically no traction. Making traction and turning at the same time, thus producing a spiral movement, is responsible for the tears in the vaginal wall which have been held up as an argument against the Scanzoni procedure. The head should be rotated in the station in which it lies and no traction made before or during the rotation. This part of the ma-

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neuver aims simply at correcting the abnormality and not at advance of the head.

III. An accurate cephalic application should always be made, as this prevents the possibility of the blades slipping during the rotation.

IV. Rotation should be made in such a way that the blades of the forceps shall remain in approximately the same axis. With the usual forceps which have a pelvic curve this may be accomplished only by making the handles of the forceps describe a large circle during the rotation. Failures in attempts at rotation are very often due to simply twisting the handles, which tends to make the tips of the blades deviate from their axes and describe a circle which of course they cannot do since such an attempt would only force the child's head against one side of the pelvis and rotation would not occur.

V. Rotation should be continued until the sagittal suture lies in the anteroposterior diameter of the pelvis and not merely to the oblique diameter. If rotation is carried only to the oblique diameter the head will very likely slip back to the posterior position before the reapplication of the forceps.

VI. After complete rotation and before the removal of the blades enough traction is made to fix the head in its new position. The blades are then removed and reapplied to the head which is now in a normal position.

VII. In the reapplication of the forceps the posterior blade should always be applied first to support the head and avoid the possibility of forcing it back into its original posterior position during the application of the anterior blade.

Success or failure of attempts to perform the modified Scanzoni maneuver depend entirely upon whether the obstetrician adheres strictly to these vital points in technic.

Rotation of the head manually, while a thoroughly scientific procedure in that it corrects the abnormality before traction is made, offers the objection that the head must be considerably displaced during the manipulation and also that there is greater danger of its slipping back to the posterior position before forceps are applied. The application of a volsellum forceps to the child's scalp to prevent backward rotation of the head after manual rotation seems a very crude and unnecessary procedure.

In conclusion, my plea is for correction of posterior positions early in the second stage of labor as one of our greatest means of simplifying labor. This may be done by podalic version and by forceps in the groups of cases especially suited to each procedure.

When forceps are used the modified Scanzoni maneuver is above all the procedure of choice.

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DR. ARTHUR H. BILL, Cleveland, O., read a paper entitled **The Modified Scanzoni Maneuver in the Treatment of Vertex-Occipito-Posterior Position.** (For original article, see page 342.)

DISCUSSION

DR. JAMES A. HARRAR, NEW YORK.—I am the member of the association who made the statement two years ago which instigated Dr. Bill to write this exceedingly interesting paper. I am in hearty concord with all his ideas on how he does the Scanzoni with forceps, especially his point not to make traction while rotating.

There are two general rules which call for interference in these cases. One, when there is no advance in posterior occiput with strong pains, and secondly when there is no advance with increasing extension.

The reason for my statement two years ago, that Dr. Bill seemed to do Scanzoni rotation more frequently than I have found it necessary, and also, that a manual rotation was safer for the baby than forceps for rotation, was based on the following figures from the New York Lying-in Hospital Service which I published in 1907. In 41,800 observed labors there were 1,446 persistent occiput posterior positions, and out of these 1,013 were born spontaneously, face to pubes. Of course in this 1,013, there were a large number of small babies and a large number of women with relaxed perineum and easy rapid delivery. Only 433 cases required artificial assistance including forceps operation 286 times. The result of the rotation with blades alone gave us a fetal mortality of 10.5 per cent. In manual

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rotation done before the forceps were applied, we had a fetal mortality of 5 per cent, less than half.

In manual rotation it is very important to assist with external manipulations on the baby, pushing the fundus down to keep the head from slipping away, pushing the anterior shoulder across, with the hand that is not used in doing the Scanzoni, and it is certainly safer for the baby to turn it as a whole, than to twist its neck.

DR. GEO. CLARK MOSHER, KANSAS CITY, MO.—I should like to comment on the necessity of avoiding traction with forceps when doing a rotation. A great many years ago Blundell stamped on the blades of his forceps "Arte Non Vi." I think that is the rule we ought to observe in any forceps delivery. It is not a matter of how much strength you may have in your arms, it is a matter of really using forceps, with the minimum of effort.

Dr. Harrar's statistics would indicate that perhaps 10 per cent is too high a number of nonrotating heads, but the Scanzoni, when it is applied in a careful manner, and by a good operator, I conceive to be a good practice in obstetrics.

DR. JAMES K. QUIGLEY, ROCHESTER, N. Y.—I quite agree as to the frequency of occipitoposterior positions. One point not brought out is the danger of contraction ring dystocia in the persistent cases, and as a prophylactic, early delivery either by version or forceps.

I do not think all cases of rotation should be done by the forceps as suggested by Dr. Bill, or that all cases should be delivered by version as proposed by Dr. Potter. In a multipara if the head is high I would prefer to deliver by version, in a primipara with engaged head I have much better success with manual rotation of the head, followed by a forceps application.

DR. IRVING W. POTTER, BUFFALO, N. Y.—I want to comment on one statement that was made, that to me is a little misleading, namely, that it is out of the question, or not good obstetrics to do a version when the head was in the pelvis, that those were the cases, if I understood Dr. Bill correctly, where the forceps should be used in Scanzoni procedure.

Our experience is entirely different. To be perfectly frank with you, I have never done a Scanzoni, but I have no doubt you know that I am the radical man he mentioned.

I want to say about the correction of this posterior position, that it is far easier to put your properly gloved hand up inside that uterus once, do a version and bring the baby out than it is to apply your forceps, twist, and then reapply them and twist again, and then pull.

DR. BILL, (closing).—Statistics show that fetal mortality where the Scanzoni method is used, is greater than where manual rotation is used. There should be no fetal mortality from forceps rotation *per se*. Whether there were stillbirths following the delivery of the child or not has nothing to do with the rotation, whether manually or by forceps, but with the subsequent extraction of the child. The rotation simply corrects an abnormality, changes an abnormal to a normal position, making the further management of the case the same as if there has originally been an anterior position. Injuries to the child's head or to the birth-canal are due to the extraction and not to the rotation. As Mosher said, it is important to reduce traction force to a minimum. The traction handle described was devised more than anything else with that in view. We try to make forceps work easy work. If a forceps delivery is a difficult one, we think forceps are contraindicated.

As far as spontaneous rotation is concerned, I agree with Harrar, statistics show that a large per cent of cases will rotate spontaneously, and I granted this in my paper, but Harrar does not say how many hours elapse from the time of

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full dilatation until delivery; to how many unnecessary hours of labor the patient is subjected, which is the point which I emphasize more than anything else. Why subject a woman to hours of needless labor when we can, in a simple and safe procedure, whether it be forceps rotation or version, correct an abnormality and deliver the patient?

In regard to what Dr. Potter said concerning the use of forceps when the head is in the pelvis and the use of version in higher cases, that with one intrauterine manipulation he did a version, let me point out that in forceps rotation there is no intrauterine manipulation. If you put your hand up into the uterus and try to turn the child's body over as Quigley has suggested, I agree with Potter absolutely. I would prefer to seize both feet and do a version with one manipulation. But in forceps rotation we do not do that. The hand is not introduced into the uterus, the head is not displaced from the station in which it lies, but is simply rotated in this station, making without doubt the simplest method of delivery.

In regard to the choice between version and forceps, I think that every physician should be perfectly familiar with version and perfectly familiar with forceps work. Being perfectly familiar with each and having no choice, he can use his judgment in the individual case. Personally I have no choice and like to do one as well as the other. We must consider entirely the welfare of the patient and realize that there is a class of cases in which the forceps rotation is the simplest, and the best for the patient, and there is another class in which version is the best. Whichever of these procedures is used it may seem radical to interfere so much in posterior cases, but as I said in my paper, we are specialists; we are trying to improve obstetric art, and yet for years we have said in connection with all such procedures that they would not do in practice in general. Instead of bringing our art down to the level of general practice, let us bring our art up to a higher level and educate those who do obstetrics to that point.

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