HOW TO SAVE THE PERINÆUM BY THE DELIVERY OF THE ANTERIOR SHOULDER FIRST.

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On various occasions I have inquired of obstetricians and general practitioners which shoulder, anterior or posterior, in vertex presentations, they seek to deliver first. On the day this article is being written, my question was answered for the first time with positiveness and directness by a fellow-practitioner, who replied, without hesitation, "the anterior shoulder,"—that is to say, the shoulder presenting under the pubis.

It occurs to me that a few years ago I read an article on this subject, but an extended search among my pamphlets has not rewarded me with finding it; my recollection, however, is that the writer of the article had a similar experience with mine, and that he could get very few, if any, to answer that they paid any special attention whatever to a particular shoulder to be delivered first. The author, if my recollection serves me correctly, favored the anterior shoulder. The article passed out of my recollection, and for a long time the idea went with it.

One of the hobbies I have ridden in obstetrics has been the protection of the perinæum. I once wrote a paper on the subject, stating that for over a year I had had no torn perinæums. For a long time after the paper was published I tore nearly every perinæum I encountered. I adopted all known methods for its preservation, but none got me back to that lucky year.

There are times when, in spite of all care, the perinæum will be torn.

Some of my cases, even in the presence of apparent caution, which, however, has often proved delusive, have had even complete tears, and have otherwise all gone wrong.

These exceptions do not, however, make the rule; but th do make us pause and ask ourselves as to why they so happ If we are content with bad results we do not attempt to f nish an answer, and we call our misfortune "bad luck." we are bent on allowing no ill experience to repeat itself, pause for an investigation of our methods. Often this proc of trying to get at the cause is followed by no more "l luck" in that direction, because, after a study of our metho we have found a cause for our failures, and have fortified o selves against their repetition.

The perinæum, in my obstetrical cases, is never torn with a careful rehearsal by me afterward of the methods I ha pursued, and never without an honest endeavor on my part assume my full share of blame for the occurrence.

I am still studying the subject, and, unfortunately, am still lowing some of my perinæums to be torn. I am not ready to lieve that any one method or series of methods has been vised which will certainly insure protection for the perinæu against rupture. A clear understanding of the anatomical ch acter of the structures of the vaginal outlet, liable to ruptu and stretching, coupled with the individual characteristics the parts, such as rigidity, unusual narrowing, etc., will, wh associated with the anomalies of labor, such as non-rotated cipito-posterior head presentation, etc., cause us to have l confidence in our skill to ward off rupture, and will also ma us all the more ready to confess our comparative helplessn in the presence of the inevitable.

Some one long ago devised the simple operation of epi otomy—lateral incisions in the perinæum—in that class cases where the perinæum presents all the essential aspects an ensuing tear. This operation, so useful, but not oft enough employed, was simply the outcome of an experien which, like our own, was not satisfied with existing metho and sought new solutions of a problem all-important to t future integrity of the maternal parts.

In a primipara, in whom the levator muscles and the pe neal body have the ordinary firmness, excellent opportunity given us for watching the process of distention as the on-comi head advances against the firm muscular pillars passing up each side of the vagina, and finally as the head impinges

the perineal floor and distends the fourchette. With the advancement of the occiput up from under the pubis, if we hold our fingers against the stretched muscles on either side, we will feel them give, and finally yield. In some instances the yielding gives the distinct sensation of a tear, which may or may not be subsequently superficially apparent. If the advancement of the head has been slow, and the muscular vaginal entrance has been stretched by the operator, as labor advances, into a more pliant condition, which is all the more easy under anæsthesia, this tearing, usually inevitable under a let-alone policy, can often be prevented.

But the observation I have mentioned is instructive, and, to the obstetrical practitioner who considers it worth his while to have a technique which he can justify, and of which, by reason of results, he can boast, it is most profitable.

To me, the mechanics of labor is one of the most instructive in the field of medical art, and one object of this somewhat general paper is to urge upon the practitioner a little more study and consideration of the subject than is usually given it. It is an old subject, but it is an ever-abiding one; and, as the statistics of our clinics show the existence of numerous torn and stretched vaginal outlets following labor, its importance as a matter of discussion cannot be regarded any less now than it ever was.

This article is not written for the purpose of giving in detail all the methods to be employed to prevent disaster to the vagina in labor; but, in addition to an aim to arouse renewed thought in the matter, its purpose is to refer to the question with which the article starts out: Which shoulder, anterior or posterior, pubic or sacral, in head presentations, should, as a rule, be delivered first? My answer is the one given by the practitioner already mentioned, who stated that he delivered the anterior or pubal shoulder first.

It matters little to the child, except occasionally, as to whether it enters the world with one or the other shoulder first; but, if my theory is correct, it often matters much to the mother, for the reasons I now give.

My observation has been, that what the head has not accomplished in the act of muscle-rupturing, the shoulder passing over the perinæum, and, perhaps, though in a slighter degree,

the hip, does effect. A feeling of annoyance has always bee associated with these after-head tears, and in the effort to d away as much as possible with the cause, two or three yea ago I recalled the article I had read on the shoulder questio It is impossible for me to state whether the author gave an reason for the delivery of one shoulder rather than the othe but my reason for so doing is that in delivering the anterio shoulder first we the more readily protect the perinæum agains injury from that source.

Assuming a case in which the head has glided safely by th side muscles of the vagina, and has lifted itself over the peri næum, the neck of the child now rests on the perinæum the posterior shoulder is on the vaginal floor, and is press ing, during pains at least, in an outward and downward direc tion against the perinæum. In the delivery of the head th resultant of the forces is outward and upward, in the directio of the continuation of the parturient curve; but as soon as th head is delivered, the trunk takes the place of the head, an the direction of expulsion is somewhat changed to one which tends to jam the lower or posterior shoulder against the raised perineal body and fourchette, if they have been left wholly o partially intact. If this direction is not changed, a tear is almost inevitable.

Frequently the contractility of the outlet relaxed by the ob truding fœtal head is quickly restored and the neck is firmly encircled by the perinæal muscles, behind which are the shoul ders.

At this period the attendant is apt to view the situation with anxiety. The child's face is becoming blue, the maternal efforts have ceased or have greatly eased up, and the shoulders are wedged behind the contracted outlet. Delivery at this time should be prompt. With the head delivered and the shoulders unborn, many fœtal lives have been lost in the delay, due to strangulation of the neck. Unless delivery is quick, and the shoulders immediately follow the head over or through the perinæum, which is lax or has been torn recently or anciently, it is obviously impossible to deliver both shoulders at the same time—one or the other must advance first. If the posterior shoulder is first delivered, it must be by reason of the anterior shoulder being restrained under and behind the pubis, the

result of the propelling forces being to carry the child up and forward in the direction of the axis of the parturient canal, which means that the already delivered fœtal head shall also be carried along this imaginary line, which is contrary to the laws of gravity.

If the labor is quick, this is the usual mechanism, with consequent perineal rupture; but in ordinary labors, where, after the delivery of the head, there is a rest given to the maternal forces, which interval is evidently designed to enable these forces to reorganize themselves for further effort, the head now falls over the perinæum, as already pointed out, which would seem to indicate nature's intention with respect to delivery of the shoulders—namely, that the posterior shoulder shall be restrained, and even forced back, by the sagging downward of the head. Now, if this manifest intent is utilized, and the patient is drawn by the attendant over the edge of the bed or table in the dorsal position, with the buttocks freely overhanging, the head of the child should be forcibly pressed downward, while slight traction is exerted which communicates itself to the anterior or pubic shoulder, the woman being urged to bear down, while the nurse is grasping the fundus of the uterus through the abdominal wall and following its contraction as the child is expelled. The anterior shoulder is brought by this manœuvre from under the pubis, and the posterior shoulder is forced back from the perinæum toward the hollow of the sacrum.

The amount of traction and downward pressure needed to be employed in this procedure is sometimes considerable and may alarm the beginner, but after one or two experiences this fear will subside, and the operator will become quite skillful in the manipulation. It is essential to have the patient well over the edge of the bed or table, in order to give room for the downward movement of the head.

The shoulder, as it presents above, can be hooked under with the operator's finger, and considerably aided in the delivery. The arm can then very readily be brought out, and we now have a condition in which the anterior arm and shoulder are free in front of the pubis, the neck of the child rests on the perinæum, and the lower shoulder is within the vagina posterior to the muscular bulwark.

Rotation of the shoulders and trunk can now be readily effected, which swings the original anterior shoulder over and outside of the perinæum, and raises the former posterior shoulder up under the pubis. It is now an easy matter to deliver the anterior shoulder—in fact it is usually delivered, in the transit of rotation, before it reaches the pubis.

The philosophy of the mechanism, as I suggest it, is to have all the fœtal parts likely to tear the perinæum sweep up toward and from under the pubis, and thus furnish the needed protection to the perinæum. I do not claim any originality in the matter, but believe I am almost alone among obstetricians in making the procedure I suggest a rule of action with a specific purpose in view.

It is perhaps needless for me to state that there are instances in which no fixed rule will apply; propulsive pains are uncontrollable, or, in using forceps, traction suddenly meets with non-resistance, and the child is delivered into the world with a rush, tearing everything before it in spite of all efforts to control it.

I am hopeful this article will elicit discussion in the matter, which should be profitable.

Summary:

1. Seek to deliver the pubal shoulder first.
2. Bring the patient far over the edge of bed or table.
3. After the birth of the head, restrain the propulsive maternal efforts while the head is being depressed, restore the posterior shoulder to the hollow of the sacrum, and bring the anterior shoulder from under the pubis. Aid the delivery of the pubic shoulder and arm by a finger in the axilla.
4. Sweep the pubic arm from under the pubis, and then secure rotation of the shoulders, the anterior shoulder gliding down and over the perinæum, while the perineal shoulder is swung upward and outward as it reaches the pubis.

In my obstetrical practice this procedure has saved many perinæums.