TREATMENT OF DIFFICULT SHOULDER DELIVERY IN HEAD-FIRST CASES.

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Most writers on obstetrics, after describing at great length the evolutions of the head, dismiss in a few words the different steps by which is completed the birth of the child; the majority, on the question as to which shoulder is born first, hold that it is the posterior one. Differences of opinion, however, are found to verge on the question as to whether the posterior shoulder is liberated primarily while the anterior still remains hidden *behind* the public arch, or else whether it sweeps past the perineum only after the anterior one has come down far enough to be *seen* at the vulva *under* the arch. The latter opinion is that of Cazeaux and of Tarnier. Pajot, the most lucid teacher on mechanism of labor, settles the question in the following words: "As soon as the head has completely cleared the vulva, the contraction bring about first the rotation of the body back from the transverse to the same conjugati diameter in which it was found during the progress of labor; the shoulder behind the pubis appears under the arch, engages its acromiocervical sinus under it and remains fixed there; the posterior shoulder, thanks to this gain of nearly an inch, is then able to slip into the concavity of the sacrum and sweeps down the perineal plane, thereby incurving the body latterally, and emerges at the fourchette; as soon as the expelled part is no longer supported by the perineum, it falls by its own weight, thus disengaging the anterior shoulder, and the following contraction completes the birth of the child."

Normally, then, the anterior shoulder is born first, it plays the role of the occiput, it emerges first for the simple reason that the anterior wall of the pelvis being much shorter and straighter than the posterior or sacral wall, it gets to the outlet much sooner than the posterior shoulder, it finds there an aperture under the pubic arch and forthwith occupies it; no matter if the whole anterior arm does not come out be-

fore the posterior one, it is, nevertheless, the anterior shoulder which clears the pelvic outlet first.

Some writers make the point that this happens in primiparae, but not when the perineum has been relaxed or damaged by previous confinements; so much can be granted without weakening the theory of the regular mechanism.

Let us examine now how we are to apply this knowledge in practice to the cases which we have occasionally to face when the head being born, either by the unaided efforts of the mother, or else, thanks to the use of the forceps, there occurs a protracted standstill, perhaps because the child is a very large one, or else for the reason that the visatergo is for the time being exhausted, in other words, because there is uterine inertia. Such cases have embarassed me more than once, and I must say that the literature on the subject has only increased my perplexity as to what is best to do.

We are advised, and our own impulse prompts us to grasp the head between the two hands, with the fingers spread about the base of the skull, and to make tractions downward in order to engage the shoulders into the pelvic outlet; if this fails to bring the anterior shoulder to view, the next natural move is to elevate the head, also with traction, so as to favor the lateral inflexion of the body and deliver the posterior shoulder; but success from this manoeuvre is by no means the rule. I shall further on explain why, and so we return to our first attempt on the anterior shoulder, thus pulling up and down the head of the unlucky baby under the eyes of terror stricken relatives, sometimes, too, of a grinning midwife whom we have been fetched to relieve.

After weighing the various manoeuvres recommended for this difficulty, such as the expresson of the fœtus, traction on posterior shoulder after pushing the anterior one behind the symphysis, Winkel's methed of traction on both shoulders, and finally, the use of the blunt hook, a careful study of the natural mechanism as exposed above has prompted me to submit to the discussion of this body to the following mode of procedure, as it has given me satisfaction in two cases.

First of all, having secured the intelligent assistance of some one to press with both hands on the fundus in order to replace in a measure the failing vis a tergo, it is necessary to find out whether the shoulders have completed their rotation so as to place themselves in the antero-posterior diameter of the outlet; if they have not done so, it will be well to effect that rotation by inserting two fingers in front of and two behind the head so as to exert a pressure in opposite directions on the shoulder, as the rotary motion with the head would in most cases be unsuccessful.

This done, we must decide which shoulder to bring out first and stick to it. I think it should be the anterior one, for two reasons: It requires less effort, and the distension of the vulva being thereby minimized, there is less danger of a laceration of the perineum. This is not a mere statement. If the anterior shoulder has come down enough to lodge itself under the pubic arch, which we are unable to prevent, during the emergence of the posterior shoulder the vulva is distended to its utmost as both shoulders are at once in its circumference, and yet it has not met the worst, as the posterior elbow is near at hand, and it is at this moment that many a peryneum gives way which had resisted the passage of the head; you will find writers enough who warn you against that elbow and yet cannot advise you to meet this new danger, as in most cases there is no possibility of pushing the arm away toward the anterior plane of the child and so keeping it from acting as a wedge.

I have stated a while ago that less effort is required to bring down the front shoulder, for in a direct traction downward the whole effort tells; on the contrary, in the traction on the posterior one the effort is decomposed into two diverging forces owing to the incurvation of the child on its lateral plane; the first of these forces is applied on the anterior plane and is lost by the resistance of the pubic arch against which that shoulder is wedged; the second force is exerted on the posterior plane and is alone useful to bring the body down and out, therefore half the effort brought to bear on the posterior shoulder is lost.

In regard to the technique of the traction, I have found of advantage to exert it on the head with one hand only, the fingers spread apart, the index and the thumb in the occiput, the other fingers against the lower maxillary, while the other hand, open in pronation, pushes the posterior shoulder through the bulging perineum into the concavity of the sacrum. If necessary the blunt hook can, after a few tractions, be insinuated in the armpit so as to spare the head too protracted pressure.

In bringing this paper to a close, I beg again to emphasize the point that it covers only cases in which the strength of the mother is exhausted, the child large and the perineum intact; under different conditions and in most cases met in practice traction on the posterior shoulder first while pushing the anterior one behind the pubis will be successful nine times out of ten.