THE MANAGEMENT OF NORMAL LABOR.[1]

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Essential to the proper management of labor is a watchful supervision of the health and habits of the pregnant woman during the carrying period. Next to absolute cleanliness nothing is doing so much to lower the morbidity and mortality rate as the practice now growing with obstetricians of observing and studying their cases before labor. Physicians should inculcate the idea among their patients that it is absolutely necessary that women who are pregnant should place themselves under medical care as soon as they become aware of their condition.

The management of a normal case begins with the first visit to the physician's office. He must at that time dictate to the patient how to conduct herself with reference to diet, care of nipples, teeth, dress, amusement and exercise. She would be directed to provide herself with a proper nurse—one that has been trained is preferred. The physician must insist that a sample of her urine be furnished him once a month until the eighth month; then every week.

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The urine must be examined, not alone for albumen, but quantitatively for urea and indican. If it contain albumen it must be examined microscopically to determine whether there be any structural change of the kidneys. If the twenty-four-hour sample of urine contains less than 300 grains of urea, then the patient should be kept under close observation and a daily examination of the urine made. I firmly believe that the percentage of eclampsic seizures, which are now one to three hundred, can be materially reduced if proper examinations of the urine are made and appropriate treatment early administered. Many women do not call on the physician until the seventh or eighth month and are then in most deplorable condition to undergo the severe strain of labor, with congested kidneys, swelled legs, varicose veins, bowels constipated, and suffering from auto infection. These cases require very vigorous treatment, the use of diaphoretics, diuretics, laxatives and directions to observe the strictest dietary and hygienic precautions until the beginning of labor.

With the end of the eighth month begins the most critical period of pregnancy. At that time a careful pelvic examination, both external and internal, should be made. A great deal of information can now be obtained without causing any pain or inconvenience to the patient as to the size of the pelvis, condition of the cervix, vagina and perineum. If a diagnosis of the position of the fetus is made at this time, it will usually hold good at the time labor actually begins; this is especially true in primipara; presentation and position rarely change during the last month. The breasts and nipples must also be examined. If the nipples are small or depressed they should be drawn out with the thumb and forefinger for a few moments every morning and night; if inverted, they should be drawn out with a breast pump, which should be employed with strict attention to surgical cleanliness. If there be any disease or tenderness of the nipples, proper treatment should be instituted at once, for proper care of the nipples at this time may be the means of averting painful and even serious disturbances to mother and child after lactation is established.

The physician should see the room that the patient intends to occupy. If there has been a contagious case occupying it recently it must be condemned and another selected if possible; if not, it must be repainted, repapered and refurnished as simply as possible, yet with enough furniture to make the room comfortable and cheerful. The room must be kept well aired and so arranged that it may be kept at a proper temperature. Everything necessary for the labor should now be in the house and the patient should be told to send for the physician as soon as the pains become regular or the water has broken. If the latter has happened she must also send for the nurse at once.

We now come to the consideration of actual labor. I shall give but a brief review of the technique of a case of normal labor as I usually find it in private practice. Clinically labor is divided into three stages. The first stage: If an examination has been made at the eighth month, matters will be much simplified, as we then know the size of the child, amount of liquor amnii and what the presenting part is. If no examination has been made the physician must prepare himself to make one by a proper cleansing of the hands. They should be washed with green soap and hot water, using a brush; the nails should be well cleaned; then the hands and arms should again be scrubbed with green soap and hot water and then dipped into a 2 per cent. solution of lysol. While the hands are being washed, the nurse puts the patient in bed, which has been made up of clean materials, and washes her genitals, thighs and entire pubic region with green soap and warm water, using a soft brush, and afterwards pouring over the genitals about a quart of 1 per cent. lysol solution.

The patient being on her back, a careful examination should be made, and then, after again washing the hands, an internal examination; this is done to verify the first diagnosis, also to see how far the labor has progressed. To make the internal examination, the patient being on her back, the knees are flexed, the nurse separates the labia, and in full light the examining fingers are introduced into the vagina. The greatest care should be observed that the examining fingers do not touch anything before entering the vagina, because the most painstaking disinfection of the hands comes to naught if the fingers happen to touch the bedclothes or even the hair surrounding the parts, which usually are loaded with pathogenic bacteria, despite the most careful cleansing. This examination must be done very carefully, so as not to prematurely rupture the amniotic sac. It is also better to take time at this examination to determine all things we wish to know, than to make half a dozen short and incomplete examinations, for the fewer times we enter the vagina with our fingers the less chances of infection by that means. If the external os is of the classic silver dollar size and the pains recurring with increased frequency and at regular graduated periods, the nurse should prepare the patient for bed, first seeing that rectum and bladder are emptied, for after this time the patient will not be allowed to go to the closet. The physician now prepares to deliver the patient. Everything that is necessary should be placed near at hand; instruments should be made sterile and so placed that they will remain sterile. The physician should put on a sterile gown and endeavor to keep it so. The Kelly pad should now be placed on the bed, and the patient put there to stay. If the dilating pains are especially painful I pour a few drops of chloroform on a handkerchief and allow the woman to hold it as she likes. I am also using ether with a like result. I know there is considerable objection to the use of anesthetics in labor, but accurate ob-

servation in some of the large continental lying-in hospitals has demonstrated that an anesthetic, if not pushed too far, has no influence on the power, duration or frequency of the pains, and that by relieving the dreadful suffering of the dilating pains that in some cases causes an exhaustion as profound as would follow the most tremendous physical effort, the danger of post-partum hemorrhage and subinvolution of the uterus are actually avoided; besides, it is only humane, and I have yet to see my first case that was not grateful to me for using an anesthetic.

As labor advances and the first stage is about to pass into the second, usually the bag of water breaks; if it does not, the physician must rupture it, doing so between the pains, being careful to know that it is the amniotic sac and not the thinned cervix. As the head now advances toward the vulva, gradually dilating the perineum and the orifice, we must be on the alert not to allow the head to be delivered too fast; as the perineum gradually thins out we must place the hand on the descending head and tell the patient not to use too much force, or have the patient take several rapid breaths. If this does not stop the head from coming too rapidly and a tear of the perineum seems imminent, the head must be pushed forward toward the symphysis with one hand, while the other hand draws the tissues of the back from about the sacrum forward, thus giving about all support possible to the stretching perineum. If this does not hold the head sufficiently, we must push the anesthetic to control the voluntary muscles, and at the same time apply cloths wrung out of hot water to the perineum until it thins out and softens sufficiently to allow the head to slip over without a tear; I have done this many times and it has worked very well. I do not believe there is one single plan of preventive treatment or method of supporting the perineum that will avail in all cases, but I do believe that if the descending head is watched and the time regulated for it to pass over the perineum, we will have less extensive tears and will most surely prevent the total destruction of the perineal body. There are excuses for the lesser grades of laceration, and no one, be his skill what it may, who can absolutely avoid this accident; but a tear through the rectum is rarely justifiable. As soon as the head is born, the physician must pass his fingers between the child's neck and the symphysis of the mother, to find if the cord encircles it; if it does, he must draw the least resisting part of the cord forward and pass it over the head. The eyes of the child must now be wiped with pledgets of cotton wrung out of a saturated solution of boracic acid and water, and a clean cloth placed over them until labor is completed. We must now wait until nature rotates the head and shoulders and the uterus recovers sufficiently to expel the remainder of the body of the child. We may assist by rubbing the fundus, but must not pull the head, as by doing so we may injure the child's spine or rupture the perineum with the child's shoulders. I have seen this done more than once. As soon as the child is born it should be placed on its right side away from the vulva; its eyes should be washed again with clean pledgets of cotton, its mouth should be wiped out, using a clean cloth over a clean finger; after a few minutes—about five—the cord should be tied, using sterile thread, and cut, and the child then handed to the nurse.

We are now in the third stage of labor and the puerperineum. This stage embraces the period of retrograde changes in the sexual and other organs affected during the pregnancy, and lasts from the time the placenta is delivered until the patient has entirely recovered and is able to attend to her usual duties; this takes from four to seven weeks.

The physician places his hand over the fundus of the uterus, so as to keep it down until the placenta is delivered. I usually wait until the patient has had two or three good contractions, when, with a little pressure on the uterus from before, backward, the placenta is expressed; this usually occurs in from ten to twenty minutes after the birth of the child. The placenta is caught in a vessel and afterward examined to see if it is intact.

After the placenta is delivered the physician must keep his hand on the fundus, thus making it contract and expel all clots. A full dose of ergot should be administered for the same purpose. It is the accumulation of blood clots in the uterus that usually causes the after-pains, and it is the same clots that so easily break down and attract saprophytes and their spores that swarm in the purest atmosphere and so cause a toxemia. So, if the uterus be kept well contracted, closing the large blood vessels, it is obvious that there is lessened danger from hemorrhage and sepsis, not to speak of the comfort to the woman if she have no after-pains. The hand should be kept on the uterus for at least an hour. The patient should now be washed, all soiled cloths removed, and the physician should look for tears in the external soft parts. If there are any they should be repaired, and repaired carefully. These slight tears are often the source of infection.

The abdominal binder, reaching from below the trochanters to the lower border of the breasts, pinned so as to fit the body snugly, may now be put on, and the vulvar pad of absorbent cotton, wrung out of a 1 per cent. of lysol solution, pinned to it. The nurse should be instructed to watch the pads, and if the bleeding be at all excessive, to place her hand on the fundus and expel all clots. The nurse should change the pads about once in two hours. She should place the child to the breast about six hours after birth, and three times daily until lactation starts, then every two hours afterward. She should keep a record of the pulse, temperature, the bladder, bowels and lochia; its color, odor and quantity;

also a record of the child, with reference to its bowels, bladder, the umbilicus, eyes and its weight. These records should be shown to the physician at every visit. If anything at all questionable arises, the physician should examine the child. Many things are easily cured or prevented at this time, which, if not attended to, can give us considerable trouble a short time afterward. Many a sudden death of the new born that cannot be explained could be avoided by greater watchfulness and care.

The nurse must see that the woman has perfect rest, both mental and physical. No visitors are to be allowed in the lying-in room; no loud talking or other noises should be allowed in adjoining rooms. The patient should be in bed for at least twelve days, only allowing her to sit up in bed to use the vessel, after which she may be allowed to move to the lounge, where she may rest for a few hours, and then be returned to her bed. After the third week she may begin to move about the house, but she should not attempt to do any manner of real work until the sixth week. At that time the physician should again examine her, and if the uterus has returned to nearly its normal size and position she may be discharged.