

INDUCTION OF LABOR AT TERM AS A MATTER OF ROUTINE.*

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FOR the purposes of this paper it will be considered that the duration of an ordinary pregnancy is about 270 days, or nine calendar months, at the end of which time the patient has reached full term. It will also be supposed that pregnancy may be, and is frequently, prolonged three, four, or five weeks after term.

The following is a brief report of a case not unusual in obstetrical practice. Mrs. A., aged thirty-five, IV-para, suffered considerably from vomiting early in pregnancy, and other effects of toxemia at a later stage. She expected labor January 1, and made arrangements accordingly. At the end of four weeks thereafter there were no signs of labor. Patient became very weary, sleepless, and depressed. Her husband became cross and angry, as he wanted to go to British Columbia, but was afraid to leave his wife before confinement on account of her serious condition. Apart from this disappointment he was not

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pleased about paying \$18.00 a week to the waiting nurse who was engaged for January 1. The accoucheur started for Europe January 28, leaving in his place, however, a competent man. The newcomer had rather a sorry time for five days, but was much pleased when labor commenced, February 2. The labor was prolonged and very difficult, forceps being used finally. The child, well-formed, healthy-looking, and weighing 12 1/2 pounds, died in half an hour. The mother was seriously ill for many weeks, confined to her bed for four months, and now, four years after, has not fully recovered strength.

This case illustrates very well the fact that unduly prolonged pregnancy involves serious danger to mother, and child, and great inconvenience and worry to friends, nurse, and physician.

These evils are generally recognized, and many obstetricians say we should induce labor before grave dangers arise, but the recommendations made are not sufficiently definite to be of much use, especially to general practitioners. The majority of obstetricians consider that the induction of labor is a serious interference with Nature's work, involving some danger. If, however, we can perform the operation in such a way that it causes no danger, or at least very much less danger than the prolongation of the pregnancy, to the patient, we might justly conclude that early interference after term is not only justifiable but advisable. Those who have given up the barbarous methods adopted in so-called accouchement forcé are now inducing premature labor by simpler means and with much less danger to patients as compared with the results of a few years ago.

During the last three years I have followed a rule which I have been reluctant to describe until I had sufficient experience to enable me to recommend it with confidence to others. Thus far I am well pleased with the results. My rule is to commence *to induce labor within three days after the patient has reached term as a matter of routine in all cases.*

The following reports will illustrate to some extent the methods employed and the results obtained.

Mrs. B., aged thirty. Second pregnancy. Expected confinement June 10. On the evening of June 10 the nurse was summoned, and on her arrival prepared the patient for labor. On the following morning a vaginal tampon was introduced, after which the patient got up and went about the house as usual suffering no inconvenience from the tampon. Next morning, June 12, the tampon was removed and another introduced.

When this was removed on the following day, June 13, the cervix was softened, os softened and slightly dilated, pelvic floor and vulva softened and dilatable. A bougie was then introduced into the uterus and a tampon into the vagina. Uterine contractions commenced about midnight, fourteen hours after introduction, and the child was born four hours after. Easy labor.

Mrs. C., aged forty. Fourth pregnancy. Had one convulsion in second month and afterward serious symptoms of melancholia. When five months advanced, a consultation was held, but it was decided not to empty the uterus then. Expected confinement July 14. No sign of labor July 15. After preparation a vaginal tampon was introduced. On the next day, July 16, the tampon was removed and a second introduced. Labor commenced six hours after, the parts being fully dilated in five hours. Easy forceps delivery.

Mrs. D., aged thirty-two. Third pregnancy. Expected confinement August 15. No sign of labor August 18. Introduced tampon, and the patient got up and went about as usual. Next day, August 19, removed tampon and introduced second tampon. August 20, removed this tampon and introduced bougie. There was some resistance after the bougie had been passed apparently three inches within the uterus, but with a little coaxing this was overcome, and the bougie was pushed to the fundus. The membranes were ruptured high up, and the amniotic fluid commenced to discharge while the tampon was being introduced into the vagina. The operation was finished at 11 A. M. Labor commenced at 1 P. M., and the child was born at 4 P. M. Easy labor.

It was noticed in these and other similar cases that it was easy to induce labor at term. The patient is not, as a rule, excited or alarmed. It is only necessary to say, "We will not do much, but we wish to assist Nature in bringing on labor." After the tamponade the patient can generally go about and do her ordinary work, and sometimes does not even know that the vagina is plugged. As a rule, she does not know after the introduction of the bougie that anything of the sort is in the uterus. After such introduction, however, it is not considered advisable to allow the patient to walk about. The vaginal tampon appears to have to a two-fold effect: First, it softens and dilates the cervix and tends to cause uterine contractions. Second, it softens and dilates the vagina, pelvic floor, and perineal body

in a way that makes expulsion or extraction through these parts much more easy than under ordinary circumstances.

METHODS OF PROCEDURE.

It will be noticed that the methods employed are not exactly those of Krause or Schauta, but are a combination of the two. The plan (so far as I know), first recommended by Schauta, of inducing abortion and labor by vaginal tamponade would always be admirable if it were effectual. Many who have tried it say that it is practically useless. But do such men understand Schauta's method? Certainly, many do not. In the first place, it may be stated that the vagina cannot be properly plugged while the patient is lying on her back or on her side. The patient must be put in Sim's position. The perineum and pelvic floor must be thoroughly retracted by a Sim's speculum, and the vagina properly ballooned, so that its vault being thus distended may be completely filled by the material used for packing. It is only necessary to pack tightly about the upper two-thirds of the vagina. The mistake commonly made of packing the entrance of the vagina tightly generally causes great pain, and frequently retention of urine.

As before mentioned, after this minor operation is performed the patient may walk about with little or no inconvenience. The material used for packing is 5 per cent. iodoform gauze or a rather fine iodoform cheesecloth.

In introducing a gum elastic bougie (11 or 12, English size) the safest way is to place the patient on her back, introduce a weight speculum, seize the anterior lip of the cervix with a Volsellum forceps, pull slightly, pass in the bougie, and push it up between the membranes and the uterine wall to the fundus if possible. Frequently, we do not use the weight speculum, but introduce two fingers of one hand, place the tips behind the os, and pass in the bougie over these finger-tips. This method was adopted in the case of Mrs. D., but it will be noticed that the introduction of the bougie was followed by an outpour of amniotic fluid. It may appear to some inconvenient and awkward, when both the bougie and gauze are used, to place the patient on her back for the introduction of the bougie, and then in the semiprone position for the vaginal tamponade. This, however, is a small matter, especially if one is assisted by a skillful nurse.

It may be said that we cannot always tell when the patient has reached term. That, of course, is true, and such uncertainty

may cause some perplexity. Under such circumstances we may find that the cervix is "taken up," and if so we need not delay. In any case it is better, as a rule, to deliver two weeks before term than to wait for four or five weeks after term.

In conclusion the following recommendations and explanations are made:

Induce labor in all cases within two or three days after the expected date of confinement without waiting for any signs of labor.

First plug the vagina according to the Schauta method, making a special effort to pack the vault tightly.

After packing allow the patient to get up and go about if she wishes.

Remove the tampon in twenty-four hours, introduce a new plug, and again allow the patient to get up and go about if she chooses.

Remove the second tampon in twenty-four hours after its introduction.

If by this time labor has not commenced it is generally advisable to pass a bougie into the uterine cavity before introducing the third tampon.

In such cases we have found that labor always commences shortly after this Schauta-Krause operation.

In a fairly large proportion of cases the use of the bougie has not been found necessary, as labor comes on shortly after the first or second vaginal tamponade.

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