THE PRELIMINARY STAGE OF LABOR*

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BY THE "preliminary period of labor," I designate all the presumptive symptoms of labor that may be present before there is evidence of progressive softening, effacement, and dilatation of the cervix. This term was suggested by the observation of patients sent into the hospital with pain that persisted for hours or even days without notable evidence of progress. From watching this group of patients, I was frequently in doubt as to whether a patient was in labor. Later, as I analyzed case records, I was impressed with two problems in the management of this period.

First: The influence the management of this period had on the succeeding stages of labor.

Second: The high instance of interference that seemed to have its incipiency in this period.

The psychology of patients developed from hours of pain without progress was a problem of major importance. All patients had had prenatal care, and they were made familiar with the importance of cooperation during the prenatal period. In an attempt to control the psychology of patients during this preliminary period, full information was given to

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each patient at the time of her prenatal visits. She was told that there might be a period of pain of many hours without progress. We also described the types of pain that might be present during this period and the symptoms of true labor. The results were most surprising. At the time of labor, patients discussed the symptoms they were experiencing and many times differentiated progress pains from preliminary pains. Rest periods were asked for instead of complete sedation. Later patients discussed their "preliminary period" of labor rather than "long labor" and "rest periods" rather than "painless labor."

Such observations interested me, but as yet my observations were only an impression. One thousand consecutive cases were studied, and our findings are presented as a basis for discussion.

A study of 1000 cases reveals the data as shown in Table I.

TABLE I

Preliminary Labor

	TOTAL CASES	TOTAL NUMBER WITH PRELIMINARY LABOR	TOTAL NUMBER WITHOUT PRELIMINARY LABOR	AVERAGE DURATION PRELIMINARY WHEN PRESENT
Primiparae	539	375	164	15 hr. 51 min.
Multiparae	461	306	155	15 hr. 7 min.

Average Duration of Labor

	FIRST STAGE	SECOND STAGE		THIRD STAGE
		WITH PRELIMINARY	WITHOUT PRELIMINARY	
Primiparae	9 hr.	2 hr.	2 hr.	9 min.
Multiparae	6 hr. 55 min.	48 min.	56 min.	8 min.

Interference

PATIENTS WITH PRELIMINARY LABOR	PATIENTS WITHOUT PRELIMINARY LABOR
177 or 17.7% in 1000 cases	70 or 7% in 1000 cases

Three groups of patients were observed, those having true labors, those having false labors, and those having preliminary labors. Each group was classified from symptoms or events that suggested the nomenclature. In Group 1, true labors, there were 319 cases or 31.9 per cent.

SYMPTOMS AND EVENTS (GROUP 1)

1. The patient was sent into the hospital because of pain and other presumptive symptoms of labor.

2. The pains were progressively regular in time and in intensity.

3. There was early evidence of progressive changes in the cervix, notably softening, effacement, and dilatation, and changes in station.

4. Painless labors were seldom accomplished yet when sedatives were used cautiously and judiciously they were more effective in this period.

5. When a labor was well managed, the termination of labor was spontaneous or easy if interference was necessary.

In Group 2, false labors, there were 126 cases or 12.6 per cent.

SYMPTOMS AND EVENTS (GROUP 2)

1. The patient was sent into the hospital because of pain and too often the pain was caused by the giving of castor oil.

2. The pain was characteristic since there was little or no evidence of progress.

3. There was little or no change to be found in the mechanism of labor.

4. In time all symptoms subsided from unknown causes or from the use of sedatives.

5. All patients were sent home and in time all returned to the hospital in true labor. In previous years bags had been used or the membranes ruptured to hasten true labor. We now believe that the onset of true labor is safer to the patient and that sending the patient home avoids interference.

In the preliminary group (Group 3) there were 681 cases or 68.1 per cent. It is this group that we would emphasize since the management of this period has had such a definite influence on the succeeding stages of labor.

SYMPTOMS AND EVENTS (GROUP 3)

1. Patients were sent into the hospital because of pain and other presumptive symptoms of labor.

2. Frequently the membranes had been ruptured for twenty-four or thirty-six hours before the onset of pain.

3. In this group almost every type of pain seen in labor was observed. The pains were regular or irregular, in time and in intensity, and were described by patients as painful, cramping, or pressure pains. Most characteristic was pain without progress.

4. Even after hours or days there would be little evidence of changes in the station or changes in the cervix.

5. Sedatives would modify the pain for a time, yet the pain persisted.

6. The persistency of the pain and the lack of progress made it impossible to send patients home.

7. Prenatal judgement that the patient could have her baby enabled us to wait complacently. Rupturing the membranes in selected cases seemed to have merit, but we were not convinced that it should be done routinely. However we were convinced that the use of bags is contraindicated in this period.

8. In time there was definite progress in the mechanism of labor, especially descent and progressive changes in the cervix, notably softening, effacement, and dilatation.

9. If this period was well managed the onset of true labor was the same and the management the same as in Group 1.

10. With each succeeding patient, we became more convinced that the management of this period determined later interference or a normal delivery.

11. Prenatal information to patients that they could have a normal spontaneous delivery and prenatal information to patients as to the importance of this period developed a cooperation that materially influenced interference.

12. The termination of this period is marked by progressive softening, effacement, and dilatation of the cervix. If the strength of the patient was maintained, the force and intensity of pains were conserved and dilatation was frequently very rapid.

These observations with this classification causes us to attempt to answer the question, when is a patient in true labor? We now would suggest that a patient is having true labor when there is progressive softening, effacement, and dilatation of the cervix with progressive descent. Furthermore, we would suggest that all the presumptive symptoms of labor that are present before there is evidence of progressive changes in the cervix and descent be known as the preliminary stage of labor.

This period may consume hours or even days. In one case alone it was one week from the onset of pain before the patient was delivered. Yet by maintaining the physiologic balance of the patient, it is interesting to note that the patient delivered normally with a pulse rate in the eighties. It is also interesting to relate that the duration of true labor was only seven hours. In this series it was not unusual to have a preliminary period of twenty-four to forty-eight hours followed by true labor of four to eight hours and a normal delivery.

The large number of cesarean sections reported for cervical obstruction has not been in keeping with my own experience. In our midwestern area we have found if patients have the right kind of contractions the cervix will dilate. Likewise, with few exceptions if patients have the right kind of contractions the baby will be pushed through the pelvis. This experience caused me to wonder if the preliminary period of labor might not be the explanation of the error of judgment in many cases when cesarean sections are done. With this thought in mind all the cesarean sections done in 17,000 cases were reviewed and only 3 cases were found in which a cesarean section was indicated. One was a cancer of the cervix, a second was a high cervical amputation without sterilization, and the third was a high cervical amputation with ventral fixation and without sterilization.

It would seem that 3 cesarean sections done for cervical obstruction in 17,000 deliveries would warrant the suggestion that cervical obstruction per se is a rare condition. It would seem that a better understanding of this period of hours of pain without progress might limit the number of cesarean sections done for cervical obstruction.

In this series the question frequently arose as to what symptoms determine a test of labor. I recognize that this series is too small from which to make a positive statement, yet the suggestion that true labor is characterized by progressive softening, effacement, and dilatation of the cervix seems to be a noteworthy fact. At least it may serve as a basis for determining the type of pains necessary to dilate the cervix and push the baby through the pelvis.

SEDATION

The judicious use of morphine alone or combined with scopolamine has served me well in the management of this period. Complete sedation for hours of pain without progress has been most disappointing. I am led to believe that complete sedation is only possible with progressive softening, effacement, and dilatation of the cervix and then disappointing in many cases, if the interference rate is to be considered.

In this series there were 539 primiparae. Of this number, 164 had no preliminary period and 375 had an average preliminary period of fifteen hours and fifty-one minutes. The length of true labor of these with and without a preliminary period was eleven hours and nine minutes. There were 461 multiparae. Of this number 155 had no preliminary period while 306 had a preliminary period of fifteen hours seven minutes. The average duration of true labor of those having no preliminary period was seven hours fifty-nine minutes while those with a preliminary period had seven hours fifty-one minutes. The interesting problem was that both in the cases of primiparae and of multiparae where there was a preliminary period, it was slightly more than fifteen hours, which emphasizes the hours of pains that were present without progress. These facts suggest a different conception of the duration of labor and should be a means of differentiating those cases in which sedatives are most successful.

Another point of interest was that those patients having no preliminary period had an interference incidence of 7 per cent, while those with a preliminary period had an interference incidence of 17.7 per cent or a total of 24.7 per cent against a similar series that had an interference incidence of 47 per cent. This thought became the more impressive as patients were instructed prenatally what to anticipate when they were sent into the hospital. Equally impressive was the change in the attitude, toward the clinical course of labor, as members of the staff, internes and nurses developed this conception of hours of pain without progress.

It is very evident that interference is the fungus growth that is dwarfing our maternal and child welfare development. I do not believe our national superinterference has had a malicious environment; however there is sufficient evidence to warrant the suggestion that leaders in our specialty frequently do not appreciate the far-reaching effects of their influence. Too often well thought out procedures for definite groups become routines to the detriment of expectant mothers. It is my belief

that a more complete knowledge of the clinical course of labor and a better understanding of the significance of pain will go far toward lessening interference.

In the many years I have cared for women in labor my problem has been those patients with hours of pain without progress. My own mistakes of management and the high incidence of cesarean section and other forms of interference seen and being reported, cause me to suggest the preliminary period of labor as a part of the clinical course of labor.

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