

PARACERVICAL BLOCK IN ACCELERATION OF ACTIVE PHASE OF LABOUR IN PRIMIGRAVIDAE

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SUMMARY

To study the effect of the paracervical block on the duration of the active phase of labour, 50 primigravidae in the beginning of the active phase of labour were chosen. Of these, 25 were given the block, and 25 served as the control group. A striking difference was observed in the results in the 2 groups. The duration of the active phase was considerably reduced in the study group. The paracervical block did not influence the mode of delivery and no caesarean section was needed. No maternal or fetal complication were encountered.

Introduction

For most women labour is a time for fear and agony. This need not be so. As obstetricians we can make this ordeal relatively painless and easy, by reducing its total duration, keeping in mind that maternal and neonatal morbidity and mortality is not increased. In 1926 Gellert first mentioned the paracervical block which was demonstrated by Rosenfeld in 1945. It gained popularity in the following two decades.

Material and Methods

To study the effect of the Paracervical block on the duration of the active phase of labour, we carefully chose 50 primigravidae in the beginning of the active phase of labour at 3-4 cm dilatation. Cephalopelvic disproportion was ruled

out and there were no medical or obstetric complications. All the patients were at term.

25 patients of the study group were administered the block using aseptic precautions and with the help of a specially constructed needle with a guard 7 mm from the tip. After confirming that no blood vessel was punctured 5 cc of 2% lignocaine solution was injected transvaginally into the posterolateral fornices between 4 and 6 o'clock position on one side and 5 minutes later between 6 and 8 o'clock position on the other side.

Close intrapartum monitoring was done. The pulse, blood pressure, fetal heart sounds were checked every 5 mins for 15 mins and then every 15 mins till no changes were recorded. No other method for acceleration of labour was used and artificial rupture of membranes was avoided. Response of the patients to uterine contractions, time interval from injection to full dilatation, duration of the 2nd and 3rd stages were noted.

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The block acted by blocking the sensory and sympathetic pathways from the uterus and cervix to the T 11 and T 12 spinal segments via Frankenhauers ganglion. The cervix reacted by softening and relaxing allowing dilatation to progress at a more rapid rate.

Results

Relief of pain was considerable as seen in Table I. The data after analysis showed a striking difference in the 2 groups. As seen in Table II, 15 patients from the control group were in active labour for 6-8 hours but only 1 patient from the study group was in active labour for 6-8 hours.

TABLE I
Relief of Pain

| | |
|-----------|----|
| Poor | 1 |
| Fair | 13 |
| Good | 10 |
| Excellent | 1 |

TABLE II
Duration of Active Labour

| | Control Group | Study Group |
|----------|---------------|-------------|
| 2 hrs. | Nil | Nil |
| 2-4 hrs. | Nil | 11 |
| 4-6 hrs. | 10 | 13 |
| 6-8 hrs. | 15 | 1 |

TABLE III
Duration of Stages of Labour

| | Control group | Study group |
|-----------------------|-------------------------------|---|
| 3 cm.—Full dilatation | 6 hrs. 12 mins. (4-9 hrs.) | 3 hrs. 48 mins. (2 hrs.-5 hrs. 40 mins.) |
| 2nd Stage | 38 mins. (25-60 mins.) | 35 mins. (20-60 mins.) |
| 3rd Stage | 8 mins. (5-15 mins.) | 8 mins. (5-15 mins.) |

The average duration of the active phase from the time of injection to full dilatation was 3 hrs 48 mins in the study group as compared to 6 hrs 12 mins duration of active phase in the control group, which is statistically significant.

No significant difference was noted in the duration of the 2nd and 3rd stages, as seen in Table III.

We encountered 2 cases of fetal bradycardia in the study group. In the first patient there was a drop in the FHS. from a baseline of 150 beats/min to 120 beats/min 7 mins after injection. But they picked up to the baseline within 5 mins after giving the patient left lateral position, nasal oxygen and running a 5% dextrose drip intravenously. In the 2nd patient bradycardia persisted till delivery but the mystery revealed itself when meconium stained liquor poured out when the membranes ruptured.

Table IV shows that the block did not

TABLE IV
Mode of Delivery

| | Control Group | Study Group |
|----------------|---------------|-------------|
| Spontaneous | 24 | 24 |
| Vaginal | | |
| Vacuum/forceps | 1 | 1 |
| LSCS | Nil | Nil |

influence the mode of delivery. A vacuum extraction was carried out on the patient who had meconium stained liquor in the study group.

By using the paracervical block we hastened labour successfully. The patients in the control group fought their way through the active stage. An outlet forceps was applied to one such patient who suffered maternal exhaustion.

As seen in Table V all the babies in the study group had an Apgar score of more than 8 at 5 mins.

TABLE V
Apgar Score

| | Control Group | Study Group |
|-------------|---------------|-------------|
| Less than 4 | Nil | Nil |
| 5-7 | 1 | Nil |
| 8 and more | 24 | 25 |

Conclusion

It is seen from our study that the Paracervical block has not only accelerated labour but has also imparted relief of pain, so that when these patients entered the 2nd stage they were less worn out, more confident and cooperative whilst bearing down.