PAIN RELIEF DURING LABOUR BY PARACERVICAL BLOCK

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SUMMARY

A study was conducted in the department of obstetrics and gynaecology, J. L. N. Medical College Hospital Ajmer, on 200 cases, out of which 100 cases were control. Pain relief was excellent in 31% cases with average duration of pain relief was 37.4 minutes. There was no adverse effect on fetal heart rate, duration of labour was decreased by two hours.

INTRODUCTION

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. Use of systemic sedatives, narcotics and tranquilizers in the first stage of labour, even to the point at which maternal, disorientation and infant depression occurs, pain relief is often imperfect.

Paracervical block can be effective at any state of dilatation and even before dilatation has begun in patients with painful prodromal labour. The block should not be given too late, however the analgesia it provides is only for uterine contractions and cervical dilatation, it does not relieve the pain of distention of lower vagina and perineum.

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MATERIAL AND METHODS

A study was conducted in the obstetric and gynaecology department of J. L. N. Medical College, Ajmer. There were a total of 200 cases, 100 cases were taken as control. The patient was adequately informed about the procedure. Xylocaine was tested by cultaneous sensitivity. A

thorough general, systemic, per abdominal and per vaginal examination was done in all cases. Pulse, Blood Pressure and uterine examination was done in all cases. Pulse, Blood Pressure and uterine contractions were recorded before and after giving paracervical block. FHR was recorded before and after paracervical block, every 5 minutes for the first 15 minutes and every 15 minutes after wards.

10 ml of xylocaine 1% was given from a needle of 21 guage 11 cms long with a sheath of plastic tube limiting the penetration of needle only upto 7 mm. The injection was made at 4 and 8 O'Clock after a negative aspiration. In order to detect early maternal and fetal toxic effects due to the local anaesthetic approximately 2 uterine contractions of 5 minutes were allowed to elapse prior to injection on contralateral side. Patient's behaviour before and after injection, uterine contraction and progress of labour, was observed. The findings regarding pain relief were graded as follows :

Excellent - With the uterine contractions patient had no sensation of pain.

Good - The patient was aware of uterine contraction and experienced dullache in the back.

Fair - The patient experienced some pain or the relief was on one side only even with advancing labour with increased intensity of uterine contractions.

Poor- There was no relief of pain.

The mode of delivery and Apgar score of the baby was recorded.

OBSERVATION

As shown in table No. I, 56 cases were nulliparous, 25 were unipara, 18 were second para and one was third para. Pain relief was excellent in 37% of the cases and poor in 15% of the cases. Table II shows duration of pain relief, varied from 30 to 60 minutes, though the average duration of pain relief was 37.4 minutes. Table III shows changes in the fetal heart rate. FHR was normal in 97% of cases of study group and 90% of control group. In study group tachycardia occured in 1 case and bradycardia in 2 cases while in control group tachycardia occured in 3 cases and bradycardia in 7 cases. Apgar score of the new born was not affected and neonatal complica-

Table I

Degree of Pain Relief

Degree of Pain Relief	Nullipara	Unipara	Second para	Third para	Total %
Excellent	15	9	12	1	37%
Good	18	10	3		31%
Fair	13	2	2		17%
Poor	10	4	1		15%
Total	56	25	18	1	100%
Control Group	42	28	24	6	100%

tions were nil.

Table No. IV shows block delivery interval. Block was given at 3-4 cms dilatation and the time from 3-4 cms dilatation till delivery of the baby was noted in the study and control group. Block delivery interval was shortened by more than 2 hours in all patients of study group. Mode of delivery was not affected by block. 93 cases delivered normally, outlet forceps was applied in 6 cases. LSCS was done in one case for foetal distress in study group, while in control group LSCS was done in 2 cases for foetal bradycardia. Maternal complication were nil after block.

Table II

Duration of Pain Relief

Time in Minutes	Nullipara	Multipara	Total
Upto 30 minutes	4	8	12
30 - 60 minutes	42	31	73
No Relief	10	5	15
Average	41.5 minutes	33.4 minutes	37.4 minutes

Table III

Changes in Foetal Heart Rate

Change	Nullipara		Multipara		Total	
	Study	Control	Study	Control	Study	Control
Normal	53	38	44	52	97	90
Tachycarda	1	1	—	2	1	3
Bradycarda	2	3	—	4	2	7
Total	56	42	44	58	100	100

Table IV

Block Delivery Interval

Parity	Study Group	Control Group	Difference between study and Control
Nullipara	3 hrs. 17 min.	5 hrs. 34 min.	2 hrs. 17 min.
Unipara	2 hrs. 52 min.	5 hrs. 12 min.	2 hrs. 20 min.
Second para	1 hr. 42 min.	4 hrs. 5 min.	2 hrs. 23 min.
Third para	0 hr. 52 min.	3 hrs. 19 min.	2 hrs. 27 min.

DISCUSSION

Paracervical block consist of the transvaginal injection of local anaesthetic solution into the base of the broad ligament. The injection bathed the parametrial tissue and blocks the utero-vaginal plexuses thus interrupting the sensory pathways from the upper portion of the uterus, the lower uterine segment and cervix, so relieving the women of pain during the greater part of the 1st stage of labour.

In present study pain relief was excellent in 30% cases out of which 15 were nullipara. Same was the observation of & Agarwal (1991). The average duration of pain relief was 37.4 minutes, in nullipara it was 41.5 minutes. Which is similar to findings of Radha Jinna & Agarwal (1991) they reported 43 minutes in primigravida and 39.7 minutes in multigravida.

The fetal bradycardia occured in 2 cases of study group and 7 cases of control group so it is quite difficult to say that the bradycardia was due to paracervical block or other reasons. Shinder et al (1970) found high incidence of fetal bradycardia in infants who were premature or having preexisting distress.

The duration of labour and block delivery interval was shortened by approximately two hours in study group. Same was observed by Deshpande et al (1989)

The paracervical block can be effective at any stage of dilatation and even before dilatation has begun in patients with painful prodromal labour. The paracervical block is a simple, easy, safe and cheap method to relieve pain and does not require extra staff, sophisticated fetal or maternal monitoring.

REFERENCES

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