

EVALUATION OF PARACERVICAL BLOCK IN THE MANAGEMENT OF LABOUR

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Labour and delivery continues to be an unpleasant experience. The labour pains cannot be easily forgotten, despite the pleasure that accompanies the new arrival. Till now, many methods like local infiltration of the perineum, transvaginal pudendal nerve block, paracervical block, low spinal anaesthesia, continuous lumbar epidural anaesthesia and continuous caudal anaesthesia have been tried to relieve the misery. In the developing countries like India we need an effective and easily administrable analgesic.

Paracervical block is simple to administer, does not require sophisticated foetal and maternal monitoring. It blocks the sensory pathway from the upper portion of vagina, lower uterine segment and the cervix. It also softens and dilates the cervix faster thereby reducing the duration of the first stage. The previous non acceptance of this method was due to the short duration of action of the anaesthetic agents needing repeated administration. With the advent of a long acting local anaesthetic agent Bupivacaine the hopes of a single, successful paracervical block has brightened.

Several authors have already used this method e.g. Gudgeon (1968), Hokeguard K. (1969) Hollman et al (1969) and Grenman et al (1986).

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A total of 200 cases of uncomplicated pregnancies in established early labour admitted in Nehru Chikitsalaya, B.R.D. Medical College, Gorakhpur, during the period from September 1988 to December 1989 were selected for the study. A single paracervical injection was given and its effect was compared with 50 control cases. The study was conducted using 1% Xylocaine in 100 cases 0.5% marcaine in 50 cases.

The injection was given at 3 and 9 or 4 and 8'0 clock position using Kobak's needle and guide. 10 ml. of 1% Xylocaine or 0.5% marcaine was injected on each side.

The parameters taken into account were -

The maternal pulse and blood pressure every 15 minutes for 2 hours. The uterine contractility by abdominal palpation. Fetal heart rate every 15 minutes for 2 hours. Progress of labour was monitored. Mode of delivery, block delivery interval Apgar score at 1 and 5 minutes were noted. Any adverse reactions to the drug were noted.

Patient was questioned regarding pain relief which was graded as follows:

Excellent - No pain with uterine contractions

Good - Dull ache with uterine contractions

Fair - Mild pain relief

Poor - No relief of pain.

All the patients were watched for post partum haemorrhage.

Pain relief was excellent in 80% of primigravidae and 76% of multigravidae given Xylocaine and marcaine block, Table II.

In the Xylocaine group the average duration of pain relief was 43 minutes in

TABLE I
Table showing onset of pain relief

Time	1% Xylocaine				0.5% Marcaine			
	No.	Primi %	No.	Multi %	No.	Primi %	No.	Multi %
Immediate	44	68	42	84	17	68	18	72
Within 1 minute	4	8	4	8	4	16	2	8
Within 2 minutes	0	0	2	4	2	8	3	12
Within 5 minutes	2	4	0	0	2	8	2	8
No relief	0	0	2	4	0	0	0	0

Observations and Discussion

Onset of action with Xylocaine was seen within 2 minutes in over 80% of primigravidae and multigravidae while only about 70% had immediate relief with marcaine block, Ranney (1966) Curtis (1969), Jencio (1968) also reported similar findings (Table I).

primigravidae and 39.76 minutes in multigravidae. No pain relief was seen in 4% multigravidae.

In the marcaine group, the average duration of pain relief was 128.96 minutes in primigravidae and 116.72 minutes in multigravidae (Table III).

TABLE II
Table showing degree of Pain Relief

Time	1% Xylocaine				0.5% Marcaine			
	No.	Primi %	No.	Multi %	No.	Primi %	No.	Multi %
Excellent	40	80	38	76	20	80	19	76
Good	4	8	6	12	3	12	4	16
Fair	6	12	4	8	1	4	1	4
Poor	0	0	2	4	1	4	1	4

TABLE III

Table showing duration of pain relief

Time	1% Xylocaine				0.5% Marcaine			
	No.	Primi %	No.	Multi %	No.	Primi %	No.	Multi %
Upto 30 minutes	6	12	2	4	0	0	0	0
31-40	18	36	22	44	0	0	0	0
41-50	16	32	18	36	0	0	0	0
51-60	8	16	6	12	1	4	1	4
61-90	2	4	0	0	3	12	7	28
91-120	0	0	0	0	10	40	11	44
121-150	0	0	0	0	4	16	1	4
151-180	0	0	0	0	4	16	2	8
181-210	0	0	0	0	3	12	3	12
More than 120	0	0	0	0	0	0	0	0
No relief	0	0	2	4	0	0	0	0
Mean	43 minutes		39.76 minutes		128.96 minutes		116.72 minutes	

There was no significant change in maternal pulse or blood pressure with either Xylocaine or marcaine block. There was a variable response on uterine contractility after paracervical block, but not effecting the labour untowardly. The block delivery interval was definitely shortened after paracervical block with both marcaine and Xylocaine as compared to controls. The average duration in primigravidae being 245.32 minutes in the Xylocaine group and 266.28 minutes in marcaine group (Control = 322.28 minutes). Paracervical block does not affect the mode of delivery significantly. In the xylocaine group spontaneous vaginal delivery occurred in 84%. Primigravidae (Control 92%) and 96% multi-gravidae (Control 96%) outlet forceps was applied in 8% primigravidae (Control 4%) and 4% multigravidae (Control 4%). In the marcaine group spontaneous delivery occurred in 92% primigravidae (Control 92%) and 96% multi-gravidae (Control 96%). Paracervical block does

not affect the Apgar score of the newborn. No local or systemic maternal side effects were observed after paracervical block.

To conclude paracervical block is a simple, easy and cheap method to relieve pains and does not require sophisticated foetal or maternal monitoring. It is good regional analgesic for majority of patients in our country.

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