To Study the Effectiveness of Para cervical Block in Accelerating Active Phase of Labour

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Abstract
The objective of the study was to ascertain the effectiveness of paracervical block in acceleration of active stage of labour in antenatal mothers [1] and to compare the results with controls, its effects on the fetus was also studied. Hundred cases of uncomplicated antenatal mothers with full term pregnancy were selected and randomized into two group of 50 each by single blind technique studied over a period of two years. The study was conducted using 20 ml 1% Lignocaine in 50 study group & and another 50% in control group didn't receive any medication. Time taken from administration of block to full dilatation was noted. It is noted from the study that paracervical block can accelerate the active phase of labour the p value falls (0.002) the cervical dilatation falls under 1.5cm to 2cm dilatation in the study group who have been given paracervical block for the patients [2].
Keywords: *Paracervical Block, Lignocaine, Apgar.*

Introduction

Labour is considered to be the most happiest moment for both the mother and family but the time process consumed in the process makes the mother and the relatives anxious, thus the study in the past researches have been centred around shortening the labour period with pain relief effect. Paracervical block is considered to be the safest and the most effective and simple method which can be done without any anesthetist.

Materials and Methods

Antenatal cases in labour are randomly divided into study and control groups after explaining the procedure and getting consent. Study was conducted in Rajah Muthiah Medical College and Hospital.

Patient with following conditions are excluded from the study.

- Uteroplacental insufficiency

- Diabetes, PET, post term, chronic Hypertension
- Malpresentation
- IUGR
- Multiple gestation
- Preterm
- PROM
- Congenital anomaly
- FHR aberrations

The study was conducted using 20 ml of 1% lignocaine in 50 study cases and no medication in 50 control cases. Injection were given at 2,5,7 and 110clock position in the lateral vaginal fornix with paracervical block needle with guide. 5 ml of lignocain was instilled at each position. Patients were monitored every 15 minutes for 30 minutes and then every 30 min, partogram was maintained to assess the process of labour. Time taken from the administration of block to full dilatation was noted, Mode of delivery was noted. Neonatal condition was assessed by Apgar score at 1, 5 minutes.

Result

21 women (42%) had 300 minutes in active first stage of labour, 11 women (22%) had 240 minutes in active first stage of labour, maximum number of women in study group had active stage of labour below 5 hours. In control group 17 WOMEN (34%) had 360 minutes in active phase of labour, 19 women (38%) had 420 minutes in active phase of labour, maximum number of women in control group had active phase of labour above 5 hours.

The results are statistically insignificant (p<0.001)

Duration of 1st stage (Min) * Group

Duration of 1st stage (Min)	Group				Total	
	Study		Control			
	No.	%	No.	%	No.	%
240	11	22.0	2	4.0	13	13.0
260	1	2.0	0	.0	1	1.0
300	21	42.0	9	18.0	30	30.0
320	0	.0	1	2.0	1	1.0
360	10	20.0	17	34.0	27	27.0
400	1	2.0	0	.0	1	1.0
420	6	12.0	19	38.0	25	25.0
470	0	.0	1	2.0	1	1.0
480	0	.0	1	2.0	1	1.0
Total	50	100.0	50	100.0	100	100.0

Chi-Square Tests

	Value	df	P value
Pearson Chi-Square	24.606	8	0.002
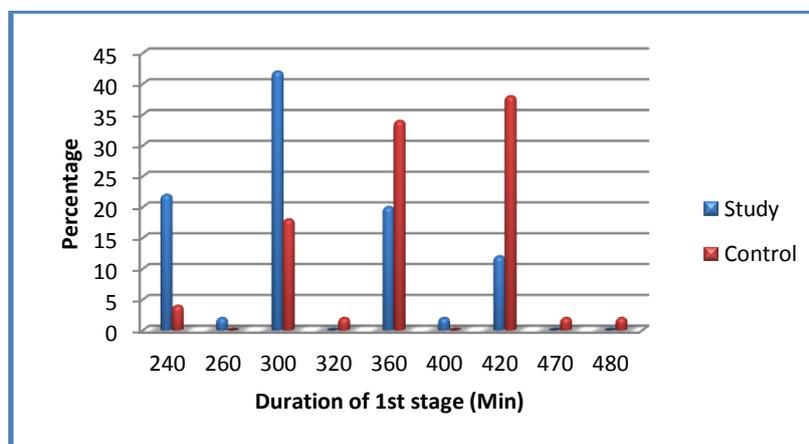
The rate of dilatation in study group for 23 women (46%) have 2cm /hr dilatation and 14women (28%) have 1.5 cm/hr dilatation maximum number of antenatal mothers have dilatation above 1.5cm. In control group 20 women (40%) have 1 cm/hr dilatation, 23 women (46%)have 1.5cm dilatation /hr maximum number of antenatal mother have dilatation below 1.5cm/hr dilatation. the p value is statistically insignificant (p<0.001) (5)

Rate of dilatation (cm) * Group

Rate of dilatation (cm)	Group				Total	
	Study		Control			
	No.	%	No.	%	No.	%
1	9	18.0	20	40.0	29	29.0
1.2	1	2.0	0	.0	1	1.0
1.5	14	28.0	23	46.0	37	37.0
2	23	46.0	6	12.0	29	29.0
2.5	3	6.0	1	2.0	4	4.0
Total	50	100.0	50	100.0	100	100.0

Chi-Square Tests

|	Value	Df	P value
Pearson Chi-Square	18.327	4	0.001

There was no significant difference in the duration of second stage and third stage in the study and control group

Duration of IInd stage (Min) * Group

IInd stage (Min)	Group				Total	
	Study		Control			
	No.	%	No.	%	No.	%
20	5	11.1	2	4.4	7	7.8
30	33	73.3	27	60.0	60	66.7
60	7	15.6	16	35.6	23	25.6
Total	45	100.0	45	100.0	90	100.0

Chi-Square Tests

	Value	Df	P value
Pearson Chi-Square	5.407	2	0.067
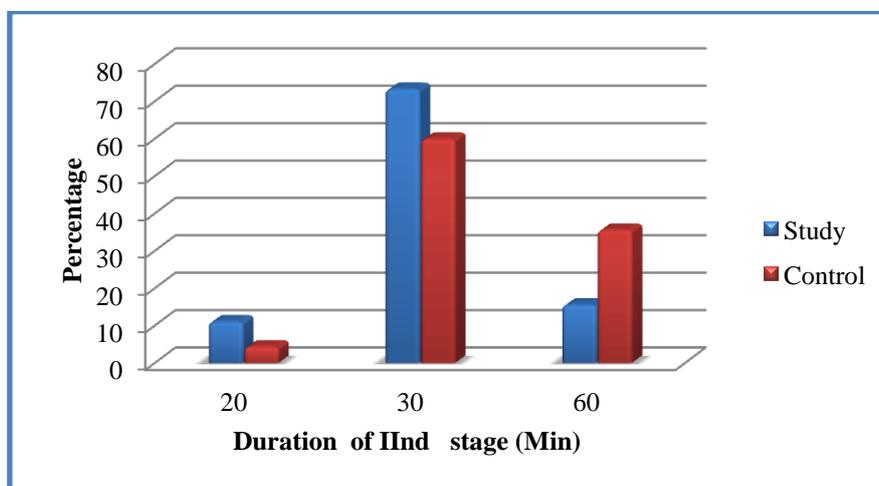
Duration of IIIrd stage (Min) * Group

IIIrd stage (Min)	Group				Total	
	Study		Control			
	No.	%	No.	%	No.	%
5	24	53.3	21	46.7	45	50.0
10	17	37.8	17	37.8	34	37.8
15	2	4.4	3	6.7	5	5.6
20	2	4.4	4	8.9	6	6.7
Total	45	100.0	45	100.0	90	100.0

Chi-Square Tests

	Value	df	P value
Pearson Chi-Square	1.067	3	0.785
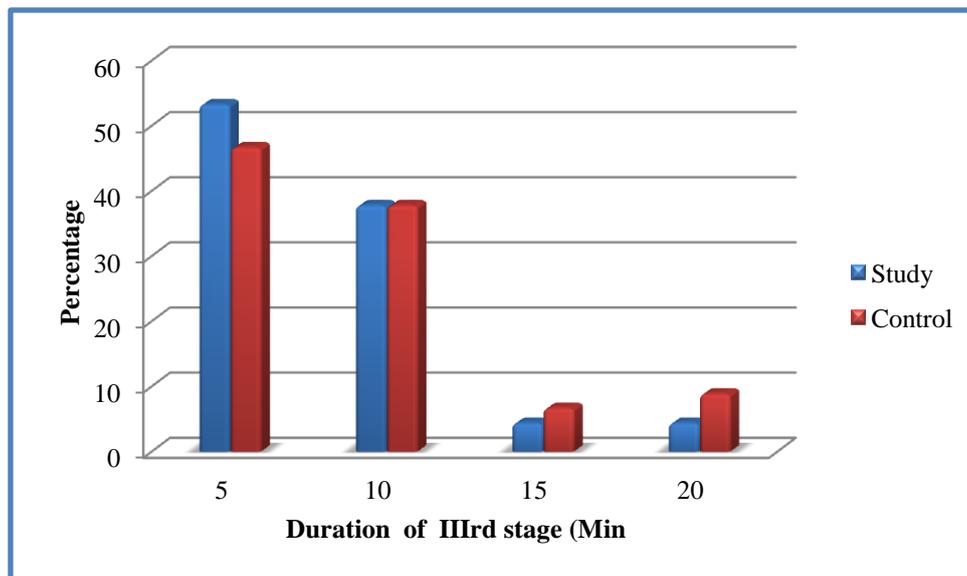
Apgar

Apgar at 5 min	Study n (%)	Control n (%)
< 4	0	0
5-7	5 (10)	2 (4)
> 8	45 (90)	48 (96)
Total	50 (100)	50 (100)
p = 0.24	NS p > 0.05	

None of the babies in the study group asphyxiated

Discussion

The study conducted in rajah muthian medical college among control and study group using 1% lignocaine proved that paracervical block was helpful in accelerating the active phase of labour and reducing the period of labour.

Mean duration of labour was found to be reduced in study subjects when compared with standard duration of labour. Similar results were reported by Deshpande et al in their study[2] The APGAR score is not affected by paracervical block as shown by the study of Nagal et al[4], Latha B. The results were found to be same in the randomized control study done by Z MEHRANGIZ [1].

Conclusion

PARA cervical block is the easiest and safest method which can be used without the expertise and helps in accelerating the active phase of labour which relives the mother from the excruciating pain sooner

References

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