



LABOR ADMISSION TEST AND NEONATAL OUTCOME

Dr. R. Sumathi

Assistant Professor, Dept. of OBG, ACSR Govt. Medical College, Nellore.

Dr. R. G. Suresh Kumar*

Assistant Professor, Dept. of OBG, ACSR Govt. Medical College, Nellore.

*Corresponding Author

ABSTRACT**Purpose:** Purpose of the study is to study the Mode of Delivery and Perinatal outcome in relation to the admission test in the study group.**Method:** All women in latent phase of labor were subjected to admission test with CTG machine and tracing recorded. Any complication arising during labor and the perinatal outcome were recorded.**Results:** Incidence of fetal distress, need for operative delivery, low apgar scores, low birth weight, admission to NICU and perinatal deaths are significantly more in non reactive admission test group.**Conclusion:** Admission test is economical, non invasive, and readily available screening test. Non reactive patterns predicts well the incidence of perinatal complications and Neonatal mortality.**KEYWORDS** : Electronic fetal monitoring, Fetal hypoxia, Perinatal outcome.**INTRODUCTION**

Admission test is noninvasive technique by which a short 15 – 20 minutes external electric fetal monitoring on admission in early labor can be used as a screening test to identify a sub group of fetuses who would benefit from more intensive monitoring, while others can be monitored with intermittent auscultation only. This test can also detect fetal hypoxia already present at the time of admission, which is not apparent clinically. It provides early information of fetal basic status and predict asphyxia that could develop during labor. An abnormal tracing might indicate and identify potential compromise at a stage early enough to allow timely intervention, furthermore a normal AT offers reassurance. Aim of the study is to study the Mode of Delivery and Perinatal outcome in study group.

MATERIAL AND METHODS

The study conducted in the Department of Obstetrics and Gynecology, Government General Hospital, Nellore from March to June 2018. 100 low risk term pregnant women in labor were taken for study.

Inclusion Criteria

- 1) Term singleton pregnancy
- 2) Cephalic presentation
- 3) Intact membranes
- 4) Latent labor

Exclusion Criteria

- 1) Congenital malformations
- 2) Multiple pregnancy
- 3) PROM
- 4) Mal presentation
- 5) Acute hypoxia like Abruptio placenta and card prolapse
- 6) Previous Cesarean section

On admission a detailed history has been taken, general and obstetric examination including pelvic examination has been done to determine the stage of labor. All women in latent phase of labor were subjected to admission test after the informed consent. Admission test was conducted with CTG machine and tracing recorded.

OBSERVATIONS**Admission Test – Interpretation (Table 1)**

Result	No. of Admission test	Percentage (%)
Reactive	145	72.5%
Equivocal	27	13.5%
Non Reactive	28	14%

Incidence of Meconium stained liquor (Table 2)

	Reactive (N - 145)	Equivocal (N - 27)	Non Reactive (N - 28)
Meconium stained Liquor	5 (3.45%)	10 (37.03%)	12 (42.85%)

Incidence of Fetal distress (Table 3)

	Reactive (N - 145)	Equivocal (N - 27)	Non Reactive (N - 28)
Fetal distress	0	7 (25.93%)	28 (100%)

Apgar Scores (Table 4)

Apgar Score	Reactive (N - 145)	Equivocal (N - 27)	Non Reactive (N - 28)
>7 at 1 min	140 (96.55%)	17 (62.96%)	16 (57.14%)
<7 at 1 min	5 (3.45%)	10 (37.03%)	12 (42.86%)
>7 at 5 min	4 (80%)	9 (90%)	8 (28%)
<7 at 7 min	1 (20%) NICU admission	1 (10%) NICU admission	4 (14.29%)

28.57% of the patients with non-reactive pattern delivered low birth weight babies as compared to 6.89% with reactive patterns. Significant no. of Low Birth Weight babies had an abnormal Admission Test.

Non reactive patterns was associated with significantly increased incidence of perinatal deaths 10.71%, compared to 0.68% in reactive group i.e. one still birth due to cord thrice around the neck.

DISCUSSION**1. Admission test – Interpretation.**

In analyzing the admission test results of present study compared well with Aparna Hegde, Vinitha Das in reactive admission test group. A slightly less incidence was reported by Shakira Praveen 75%, Chowdary reported 38% of reactive test but he did admission test only in high risk pregnancy. Less number i.e. 13.5% equivocal group compare to the other study. The Non- Reactive group incidence is comparable to that of Vinitha Das only. Chowdary at al reported a very less percent of reactive admission test 38% only. But he has analyzed the admission test result only in High risk group. In equivocal admission test group the result in the present study is comparable to Aparna Hegde. Chowdary had 52% higher incidence again because of high risk women.

2. Fetal distress.

Very low incidence of fetal distress reported in reactive admission test by Shakira Praveen and none in present study. Where as Vinitha

Das and Shakira Praveen reported higher incidence when compare to Pankaj Desai 30.5%. Incidence of fetal distress 60%, 66.6% respectively in the non-reactive Admission test group. In the present study fetal distress noted in non reactive cases i.e. 100%.

3. Reactive Admission test

Mode of delivery was studied by Aparna Hegde, Shakira Praveen & Chowdary. In the Reactive group all the authors except for Chowdary had Normal Vaginal Delivery are nearly 90%. Chowdary reported lesser incidence i.e. 78.3% in the admission group has Normal Vaginal Delivery. Instrumental vaginal delivery occurred in 8% of Reactive group in the present study and study of Chowdary when compare to 3% of instrumental delivery by Aparna Hegde and Shakira Praveen. The present study had the Cesarean section rate of 3.4% only as compared to 6.6% by Shakira Praveen, 8% by Aparna Hegde 13.5%, by Chowdary.

4. Equivocal admission test

In the Equivocal admission test present study has i.e. 48.1% only where as Chowdary reported incidence of 62.5%, Shakira Praveen 66.3%, Aparna Hegde highest incidence of Normal Vaginal Delivery 78%. Instrumental delivery were considered the present study was 37%. Cesarean section was compared with the Equivocal admission test group. The present study and the study by Aparna Hegde had similar incidence of Cesarean Section i.e. 15%, Where as Shakira Praveen reported a higher incidence i.e. 22.7%. In the non reactive of admission test group the present study and study by Aparna Hegde the Cesarean rate were comparable i.e. 91% & 100%, where as Shakira Praveen and Chowdary 33% and 10% respectively.

5. Apgar Score.

The Apgar scores were comparable to some extent only with that of Pankaj Desai only where as poor correlation as observed with that of shakira praveen and Aparna Hegde.

6. NICU admission

Shakira Praveen is the only author who reported the admission to NICU. She reported higher incidence in reactive and Equivocal admission test groups and low incidence in non reactive group compared the the present study.

CONCLUSION

Admission test is economical, non invasive, and readily available screening test. It can predict fetal well being during the next few hours of labor. Reactive admission test can predict good neonatal outcome. Non reactive tests are associated with significant increase in Cesarean section rate for fetal distress. Equivocal admission test needs more vigilant monitoring and operative interventions are more. Non reactive patterns predicts well the incidence of fetal distress and the need for operative delivery, low apgar scores, admission to NICU, low birth weight and Neonatal mortality.

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