



PREGNANCY OUTCOME IN OLIGOHYDRAMNIOS AT TERM – AN OBSERVATIONAL STUDY

Obstetrics & Gynaecology

Dr. K. Vandana

Professor & HOD, Department of Obstetrics and Gynaecology, Alluri Sitarama Raju Academy of Medical Sciences, Eluru, west Godavari district, Andhra Pradesh 534005, India.

Dr. M. Sravya*

Post Graduate, Department of Obstetrics and Gynaecology, Alluri Sitarama Raju Academy of Medical Sciences, Eluru, west Godavari district, Andhra Pradesh 534005, India. *Corresponding Author

ABSTRACT

Background: Oligohydramnios is defined as AFI less than 5cm or single deep vertical pocket of amniotic fluid measuring less than 2cm. Oligohydramnios complicates approximately 1-2% of pregnancies. It is associated with adverse pregnancy outcomes.

Aim: To study the pregnancy outcome after diagnosis of Oligohydramnios at term.

Materials and Methods: This is a prospective observational study consisting of 50 antenatal women with oligohydramnios at term admitted for delivery at ASRAMS.

Results: Out of 50 cases, 38% of cases have AFI between 4.1-5 cm, 34% have AFI between 2-3cm. NST was non reactive in 40%. Meconium stained liquor is seen in 60% of cases. 64% underwent LSCS. Neonatal outcome of LBW is seen in 62%. 64% of newborn babies were admitted in NICU.

Abbreviations: AFI=amniotic fluid volume, NST= non-stress test, LSCS=lower segment caesarean section, LBW= low birth weight, IUGR= intrauterine growth restriction, NICU= neonatal intensive care unit.

Conclusion: Oligohydramnios (AFI<5 cm) detected after 37 weeks of gestation is an indicator of poor pregnancy outcome. Oligohydramnios (AFI<5) is valuable for predicting fetal distress in labour requiring caesarean section, used as an adjunct to other fetal surveillance methods.

KEYWORDS

Oligohydramnios, AFI, Fetal distress, perinatal morbidity.

INTRODUCTION:

Amniotic fluid which surrounds the developing fetus in amniotic sac provides several benefits to the fetus. The purpose of taking group of women with oligohydramnios at term pregnancies are because the etiology, management and the outcome is different in late onset oligohydramnios compared to early onset oligohydramnios.

Progressive improvements in ultrasonographic techniques have made it possible to assess the amniotic fluid volume relatively accurately.

Oligohydramnios is defined as AFI less than 5cm or single deep vertical pocket of amniotic fluid measuring less than 2cm. Oligohydramnios complicates approximately 1-2% of pregnancies. It is associated with adverse pregnancy outcomes.

Although subjective and semiquantitative methods of estimating amniotic fluid volume ultrasonographically are in use, the best technique remains controversial.

However, the technique of four quadrant method of calculating amniotic fluid index (AFI) described by Phelan et al. In 1987 is accepted by most of the authors.

Many studies show that oligohydramnios is associated with variety of ominous pregnancy outcomes. Maternal morbidity such as increased rates of induced labour, operative interference and caesarean section. Fetal morbidity includes intrauterine growth restriction, Fetal distress, meconium aspiration syndrome, birth asphyxia, low APGAR score, low birth weight, perinatal morbidity, perinatal mortality. Hence this study was done.

Aim and Objectives:

1. To study the pregnancy outcome in oligohydramnios (AFI < 5) at term.
2. To find out the value of oligohydramnios in determining perinatal outcome and caesarean section rates in pregnancy beyond 37 weeks.

Methodology:

This study consisted of 50 cases with oligohydramnios diagnosed by ultrasound at or after 37 weeks of gestation.

This study consisted of 50 antenatal women who are satisfying the inclusion criteria and admitted in antenatal ward, ASRAM MEDICAL COLLEGE, ELURU. This was a prospective observational study done from July 2018 to July 2019.

Inclusion Criteria:

1. Singleton pregnancy
2. 37 - 42 weeks gestation
3. AFI<5cm
4. Intact membranes.

Exclusion Criteria:

1. GA < 37 weeks.
2. Associated fetal malformations.
3. Ruptured membranes
4. Malpresentation and Multiple gestation.

For all the selected cases, thorough history was taken and complete examination was done. Clinical evidence of oligohydramnios was made out. The previous obstetric records and ultrasound reports were reviewed. For all the women, ultrasound examination was done and amniotic fluid index was calculated.

For all women baseline investigations like Hemoglobin, blood group and Rh typing, routine urine examination were done. NST was done for all and BPP for selected patients.

Those who developed non reassuring NST or meconium stained liquor, corrective measures like change in maternal position, hydration, O₂ inhalation and stopping oxytocin were tried, Continuous EFM was done and delivered accordingly.

Various outcome measures recorded were, gestational age at delivery, nature of amniotic fluid, FHR tracings, mode of delivery, indication for caesarean section or instrumental delivery, APGAR score at one minute and five minutes, birth weight, admission to neonatal ward, perinatal morbidity and perinatal mortality.

The results were recorded and tabulated.

RESULTS AND DISCUSSION:

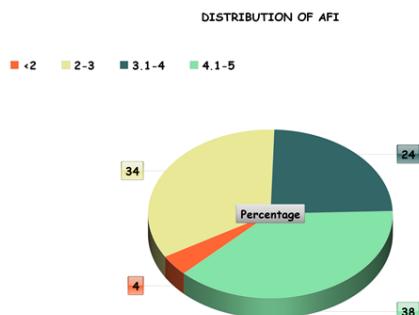
This study was done in 50 antenatal women of age group 18-30 years with gestational age between 37 – 42 weeks and with AFI < 5cm. The collected data was compiled in the following formats :

1. 18 cases (36%) were booked cases and 32 (64%) were unbooked cases in our hospital.
2. The mean age of incidence was 21-25 years of about 50% and 18-20 years were about 34% and 26-30 years were about 16%.
3. Of the total cases, 56% were primigravida, 32% were Gravida 2, 12% were Gravida 3.

4. The mean gestational age was 39 weeks.

5. FIGURE-1: DISTRIBUTION OF AFI

38% of cases have AFI between 4.1- 5, 34% of cases have AFI between 2 - 3, 24% of cases have AFI between 3.1 - 4, 4% of cases have AFI <2%.



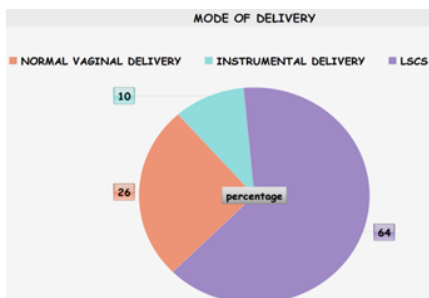
6. NST was reactive in 30 cases(60%) and non-reactive in 20 cases(40%). The most common FHR abnormality is the presence of variable decelerations.

7. TABLE -1: NATURE OF AMNIOTIC FLUID

LIQUOR	NO. OF CASES	%
CLEAR	20	40
THIN MECONIUM	6	12
THICK MECONIUM	24	48
TOTAL	50	100

8. FIGURE - 2: MODE OF DELIVERY

Out of 50 cases,32 cases (64%) underwent LSCS,13cases (26%) had normal vaginal delivery and 5 cases (10%) underwent instrumental delivery.



9. TABLE - 2: INDICATION OF LSCS

LSCS	NO. OF CASES	%
FOR FETAL DISTRESS	24	48
REPEAT LSCS	8	16

10. TABLE- 3: PERINATAL OUTCOME

BIRTH WT	NO.OF CASES	PERCENTAGE(%)
1.5 – 2	8	16
2.1 - 2.5	23	46
2.6 – 3	17	34
3.1 - 3.5	2	4
APGAR SCORE<7	NO.OF CASES	PERCENTAGE(%)
AT 1MIN	14	28
AT 5 MIN	4	8
TOTAL	18	36
	NO. OF CASES	PERCENTAGE(%)
NICU ADMISSION	32	64
EARLY NEONATAL DEATH	2	4

Low birth weight (<2.5kg) was seen in 31 cases (62%).APGAR score of <7 at 1minute and 5minutes was seen in 14 cases (28%) and 4 cases (8%) respectively.32 cases (64%) were admitted in NICU and early neonatal death was seen in 2 cases (4%).

CONCLUSION:

An amniotic fluid index of < 5 cm detected after 37 completed weeks of

gestation is an indicator of poor perinatal outcome with higher caesarean section rate.

Fetal complications associated with oligohydramnios like Non-reactive NST, abnormal FHR tracings during labor were observed. Incidence of thick meconium stained liquor, development of Fetal distress, increased rate of caesarean section, low APGAR score, low birth weight and perinatal mortality were high.

New borns were admitted in NICU for various morbidities like hyperbilirubinemia, Septicemia, IUGR, porsuckling, Birth asphyxia etc.

Determination of AFI can be used as an adjunct to other fetal surveillance methods. It helps to identify those infants at risk of poor perinatal outcome. It is also a valuable screening test for predicting fetal distress in labor requiring caesarean section.

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