



PROSPECTIVE STUDY OF FETOMATERNAL OUTCOME IN SEVERE OLIGOHYDRAMNIOS IN TERTIARY CARE CENTRE

Obstetrics & Gynaecology

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ABSTRACT

Introduction : Importance of amniotic fluid volume as an indicator of fetal status is being appreciated relatively recently. Around 3% to 8% of pregnant women are presenting with low amniotic fluid at any point of pregnancy. The present study was undertaken to study the outcome of pregnancies with Oligohydramnios [(amniotic fluid index) AFI<5 cm] at or beyond 34 weeks. **Methods:** This study consists of 100 cases of antenatal patients with severe oligohydramnios (AFI<5 cm) at or beyond 34 weeks of gestation compared with age and gestation matched 100 normal liquor (AFI≥5 cm and ≤25 cm). The outcome measures recorded were labor, gestational age at delivery, amniotic fluid index (AFI), mode of delivery, indication for cesarean section or instrumental delivery, APGAR score and birth weight. **Results:** In this study perinatal outcome with AFI< 5cm is compared with control group. About 100 cases were studied in each group. 76% of study group and 66% of control group belong to 20-30 yrs of age. In study group, 29% had vaginal delivery and 71% had LSCS delivery. In control group, 62% had vaginal delivery and 38% had LSCS delivery. The rate of caesarean section for fetal distress was higher in study group compared to control group. The difference was found to be significant (p - <0.05). Induction of labour was higher in study group (28%) compared to control group (20%). The difference was not found to be significant. Meconium stained liquor in study group was 19% and control group was 8%. The difference was significant (p - <0.05). Babies weighing less than 2 kg were 6% in study group and 2% in control group. This difference was found to be significant (p- <0.05). 20% of babies in study group were admitted in NICU, but only 8% of babies in control group were admitted in NICU. The difference was found to be significant. Neonatal death occurred in 5% in study group and 1% in control group.

KEYWORDS

Amniotic fluid index, APGAR score, Fetal heart rate, Intra uterine growth restriction

INTRODUCTION

Oligohydramnios is one of the major causes of perinatal morbidity and mortality. Oligohydramnios is a relatively common complication of pregnancy and such case is often encounter in clinical practice. It refers to amniotic fluid volume that is less than expected for gestational age. It is typically diagnosed by ultrasound examination and may be described qualitatively (e.g, normal, reduced) or quantitatively (e.g, amniotic fluid index [AFI]. The sonographic diagnosis of oligohydramnios is usually based on a AFI<5 cm or on a single deepest pocket of amniotic fluid<2 cm. Our study was aimed to study the perinatal outcome in oligohydramnios.

AIMS OF THE STUDY

- To determine the Perinatal outcome in severe Oligohydramnios.

MATERIAL AND METHOD

Present study is a hospital based study on perinatal outcome in term gestation with AFI<5cm and control group AFI≥ 5cm, was carried out in Department of Obstetrics & Gynaecology, Shri M.P. Shah Govt. Medical College, Jamnagar, Gujarat, during the period of May - 2023 – May 2024. Ethical clearance was obtained for this study from the institution.

INCLUSION CRITERIA:

- Singleton pregnancy with Gestational age ≥34 weeks
- Pregnancies without anomaly with intact membranes
- AFI 5

EXCLUSION CRITERIA:

- Singleton pregnancy with gestational age <34 weeks
- Patients with multiple gestation
- Patients with fetus having congenital anomalies like renal agenesis, polycystic kidney disease
- Ruptured membranes or draining PV
- Polyhydramnios

MATERIAL

Study group:- 100 cases

- Sonographically proven case of sever oligohydramnios,
- AFI upto <5cm.
- Gestational age more than 34 weeks Singleton pregnancy.

Control group:- 100 cases

- AFI 5cm
- Gestational age more than 34 wks
- Singleton pregnancy.

RESULTS:

Table 1 : Demographic Representation of the Subjects

Age	STUDY GROUP		CONTROL GROUP	
	No.	%	No.	%
<20 years	12	12%	10	10%
21-30 years	76	76%	66	66%
> 30 years	12	12%	24	24%
Total	100	100%	100	100%

Table - 2 : Gestational age wise distribution

GESTATIONAL AGE	STUDY GROUP		CONTROL GROUP	
	No.	%	No.	%
37 weeks	20	20%	22	22%
38 weeks	40	40%	38	38%
39 weeks	21	21%	28	28%
40 weeks	8	8%	7	7%
>40 weeks	11	11%	5	5%

Table - 3 : High risk pregnancy wise distribution

High Risk	STUDY GROUP		CONTROL GROUP	
	No.	%	No.	%
Pre eclampsia	12	12%	12	12%
Postdated	8	8%	4	4%
Breech	8	8%	6	6%

Uncomplicated	46	46%	48	48%
Previous LSCS	26	26%	30	30%

Table - 4 : Onset of labour wise distribution

Onset of labour	STUDY GROUP		CONTROL GROUP	
	No.	%	No.	%
Induction	28	28%	20	20%
Spontaneous	32	32%	72	72%
Direct LSCS	40	40%	8	8%

Table - 5 : Colour of liquor wise distribution

Colour of liquor	STUDY GROUP		CONTROL GROUP	
	No.	%	No.	%
Clear	81	81%	92	92%
Meconium stain	19	19%	8	8%

Table - 6 : Mode of delivery wise distribution

Mode of delivery	STUDY GROUP		CONTROL GROUP	
	No.	%	No.	%
Natural Labour	29	29%	62	62%
Emergency LSCS	43	43%	30	30%
Elective LSCS	28	28%	8	8%

Table - 7 : Indication of LSCS

Indication of LSCS	STUDY GROUP		CONTROL GROUP	
	No.	%	No.	%
Fetal distress	10	14%	7	18%
Severe Oligo	42	59%	-	
IUGR	6	8%	3	7%
CPD	6	8%	7	18%
False induction	2	2.8%	8	21%
Others	5	7%	13	34%

Table - 8 : Baby weight distribution

Baby Weight	STUDY GROUP		CONTROL GROUP	
	No.	%	No.	%
Below 2 kg	6	6%	2	2%
2 - 2.5 kg	28	28%	31	31%
2.5 - 3 kg	52	52%	51	51%
Above 3 kg	14	14%	16	16%

Table - 9 : NICU Admission wise distribution

NICU Admission	STUDY GROUP		CONTROL GROUP	
	No.	%	No.	%
Yes	20	20%	8	8%
No	80	80%	92	92%

Table - 10 : Final outcome

Final outcome	STUDY GROUP		CONTROL GROUP	
	No.	%	No.	%
Normal	89	89%	94	94%
Death	5	5%	1	1%
IUGR	6	6%	5	5%

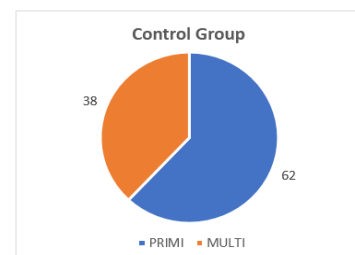
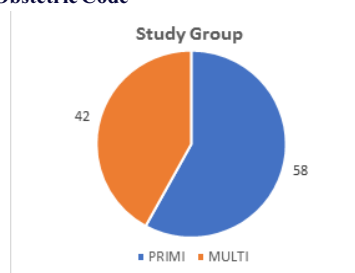
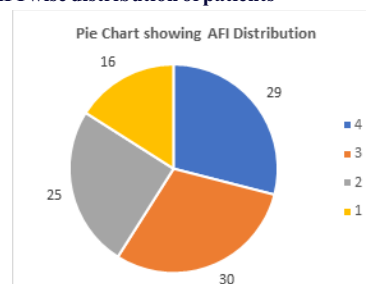
DISCUSSION

- In this study perinatal outcome with AFI<5cm is compared with control group. About 100 cases were studied in each group.
- 76% of study group and 66% of control group belong to 20-30 yrs of age.
- In study group, 29% had vaginal delivery and 71% had LSCS delivery. In control group, 62% had vaginal delivery and 38% had LSCS delivery.
- The rate of caesarean section for fetal distress was higher in study group compared to control group. The difference was found to be significant. (p < 0.05)
- Induction of labour was higher in study group (28%) compared to control group (20%). The difference was not found to be significant.
- Meconium stained liquor in study group was 19% and control group was 8%. The difference was significant (p < 0.05)
- Babies weighing less than 2 kg were 6% in study group and 2% in control group. This difference was found to be significant. (p < 0.05)
- 20% of babies in study group were admitted in NICU, but only 8% of babies in control group were admitted in NICU. The difference was found to be significant.

- Neonatal death occurred in 5% in study group and 1% in control group.

CONCLUSION :

- Oligohydramnios is being detected more often these days due to routinely performed obstetric USG.
- Oligohydramnios is one of the indicators of poor perinatal outcome.
- It is associated with fetal heart rate abnormalities, meconium staining of amniotic fluid, umbilical cord compression, poor tolerance of labour, low APGAR score of fetal acidosis.
- Pregnancy induced hypertension, postdated pregnancies are the commonest causes of reduced amniotic fluid during third trimester of pregnancy.
- Mode of delivery depends on severity of oligohydramnios and status of fetal wellbeing.
- Caesarean section is mostly required for cases with anhydramnios with intrapartum fetal heart abnormalities. Babies are relatively more prone for certain complications like intrapartum fetal distress, MAS, and birth asphyxia.
- Oligohydramnios associated with IUGR carries a poor perinatal outcome (increased neonatal death, NICU admission, increased rate of caesarean section for fetal distress, very low birth weight). Hence, they need good neonatal care.
- From this study, we conclude that oligohydramnios is a high risk pregnancy and proper antepartum care, intensive fetal surveillance and intrapartum care are required in patient with oligohydramnios.
- Every case of oligohydramnios needs careful antenatal evaluation, parental counseling, individualization, decisions regarding time and mode of delivery.
- Continuous intrapartum fetal monitoring and good neonatal care are necessary for better perinatal outcome.

Graph 1 : Obstetric Code**Graph 2: AFI wise distribution of patients**

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