

**OLIGOHYDRAMNIOS:- A COMMON PROBLEM WITH INCREASING INCIDENCE IN TERM PREGNANCY AND ITS FETOMATERNAL OUTCOME****\*Dr. Swati Yadav, Dr. Parul Shah, Dr. Rina V. Patel, Dr. Anjali Chavda and Mandar K. Shah**

Ahmedabad India.

**\*Corresponding Author: Dr. Swati Yadav**

Ahmedabad India.

Article Received on 13/06/2019

Article Revised on 03/07/2019

Article Accepted on 24/07/2019

**ABSTRACT**

Background: Oligohydramnios is commonly observed obstetric problem in term pregnancy which accompanies with increase incidence of meconium stained liquor, abnormal FHR tracing, low APGAR score, low birth weight, NICU admission, birth asphyxia and cesarean section for fetal distress. Objective: To study the incidence and fetomaternal outcome in women with singleton term pregnancy with AFI <5. Method and Material: A study of total 100 cases of oligohydramnios at term pregnancy was done over a period of 6 months. Biosocial characteristics, maternal and fetal outcome are collected and assessed in the form of percentage. Result: In present study oligohydramnios with term pregnancy had incidence of 2.8%. 72% patients are in age group of 20-29. 48% women are in 40-41 gestational age group. among these patients 9% had anhydramnios. The associated complications are pregnancy induced hypertension in 26% patients, IUGR in 20%, Anemia in 18%. 56% women were primigravida and 44% were multigravida. 48% delivered vaginally and 52% cesarean section was done. Perinatal mortality was noted 19%. Neonatal sepsis and meconium aspiration syndrome were main cause of perinatal morbidity. Conclusion: Oligohydramnios has increasing incidence due to increasing age of the patients and routinely performed obstetric ultrasonography. It is associated with significantly high incidence of cesarean section for intrapartum fetal distress, low APGAR of neonate and NICU admission. Fetomaternal outcome can be improved by careful antenatal evaluation and good neonatal care.

**KEYWORDS:** Oligohydramnios, fetomaternal outcome, AFI.**INTRODUCTION**

Oligohydramnios is the most frequent third trimester complication resulting in more number of cesarean sections mainly due to maternal and fetal risk. About 12% of women, whose pregnancy continue for two weeks beyond expected date of delivery; develop oligohydramnios due to declining placental function. AFI <5 related with expanded danger of intrauterine growth retardation, meconium aspiration syndrome, severe birth asphyxia, low apgar score, pulmonary hypoplasia and congenital anomalies. It may cause compression of umbilical cord, leading to fetal distress during labour. Oligohydramnios is also associated with maternal morbidity in form of increased rates of induction and/or operative interference. Hence the present study was carried out to find out incidence and fetomaternal outcome in term pregnancy with oligohydramnios.

**METHODS AND MATERIALS****Study setting**

Department of Obstetrics and Gynecology, V S General Hospital, Smt N. H. L Medical college, Ahmedabad, Gujarat

**Inclusion criteria**

1. Patients with gestational age 37-41 weeks.
2. Singleton gestation with cephalic presentation.
3. Patients with no complain of leaking per vaginum.
4. AFI<5

**Exclusion criteria**

1. Less than 37 weeks
2. Multiple gestation
3. Patients with PROM

**Sample size**

Total 100 cases of term pregnancy with oligohydramnios and AFI<5 fulfilling inclusion and exclusion criteria, admitted through OPD and emergency of over a period of 6 months.

**Method of data collection**

Data were collected from ward, labour room, OT records, neonatal units. Predesigned record sheet was filled up.

**Study design**

Observational Study.

## RESULTS

In the present series there were 100 confirmed cases of term pregnancy with AFI<5 out of 3500 deliveries giving an incidence of 2.8 %.

**Table 1: Age distribution.**

Age in years	No of patients
<20 years	20
20-29	72
>30	8

Table 1 represented that 72% of women with oligohydramnios were in age group 20-29 years. 20% are still in teenage group and 8% are patients >30years of age. This reflected the Indian trend of early marriage and pregnancy.

**Table 2: Gestational age.**

Gestational age	No of patients
37-38	10
38-39	16
39-40	26
40-41	48

By gestational age(table 2) 48% of women were in the gestational age group 40-41 weeks followed by 26% in 39-40 and 16% in 38-39 weeks.

**Table 3: By Amniotic fluid.**

AFI	No of patients
0	09
1	08
2	25
3	06
4	27
5	25

**Table 4: Parity.**

Primigravida	56
Multigravida	44

By parity 56% women were primigravida and 44% were multigravidas. This reflects the increasing age of female to conceive now a days.

**Table 5: Associated Maternal and Fetal conditions.**

Variables	No of cases
Pregnancy induced hypertension	24
Intrauterine growth retardation	20
Anemia	18
Fever	19
Anhydramnios	9
Fetal anomalies	6
Gestational diabetes	4

It was observed that pregnancy induced hypertension (24%), intrauterine growth retardation (20%), anemia (18%), fever (19%), anhydramnios (9%) were commonly associated maternal complications in women with oligohydramnios.

**Table 6: Mode of delivery.**

Spontaneous vaginal delivery	42
Operative delivery	58

**Table 7: By Birth Weight.**

<1000gms	02
1000-2000gms	36
2000-3000gms	58
>3000gms	04

**Table 8: Apgar Score<7.**

At 1 minute	15
At 5 minute	10

**Table 9: Neonatal Morbidity.**

Neonatal sepsis	6
Meconium aspiration	5

**Table 10: Perinatal Mortality.**

Still birth	4
Early neonatal death	15

At regards of mode of delivery it was observed that higher rate of operative deliveries were noted (58%) as compare to spontaneous delivery (42%). Birth asphyxia was more common in babies with oligohydramnios. Neonatal morbidity was mainly in form of meconium aspiration and neonatal sepsis. High perinatal mortality (19%) was observed in present study.

## DISCUSSION

In the present study 72% of cases were in age group 20-29 yrs, as compared to other age groups, reflecting the child bearing age of most of the women, similar study by Bangal VB et al, Chauhan P et al and Jan Zhang et al found the similar results. Incidence of term pregnancy with AFI <5 is 2.8% in our institute which is comparable to other studies. Obstetrical complications frequently associated with oligohydramnios were Pregnancy induced hypertension (PIH), intrauterine growth retardation, fetal renal anomalies and intrauterine fetal death. PIH was present in 24% of cases. Similar results were seen in other studies, they concluded that the incidence of oligohydramnios ranges from 10 to 30 % in hypertensive patients requiring hospitalization.

In the present study, intrauterine growth retardation was in 20% of cases and the rate of cesarean section was 58% and vaginal deliveries were 42%. Study by Casey B et al found that, there was increase rate of induction of labour

(42%) and cesarean section (32%) in oligohydramnios cases which is comparable to present study. In the present study, the apgar score was noted at 1 and 5 minutes after birth. Ten babies had low apgar score at 5min. Out of 10 babies 4 died during neonatal period. Three babies with low apgar score delivered by cesarean section. Similar result was seen in Bangal Vet. al and Casey B et al. incidence of meconium aspiration syndrome in infants with oligohydramnios was significantly higher.

In the present study, there were 96% live births and 4% still births. 15 babies died in early neonatal period. Bengal Vet al and Wolff F et al had similar perinatal mortality which was 24% and 7.2%. Overall perinatal mortality is markedly increased in patients with oligohydramnios.

### CONCLUSION

Oligohydramnios is more often detected these days due to routinely performed obstetric ultrasonography. Pregnancy Induced hypertension, Intrauterine growth restriction and anemia are most commonly associated with oligohydramnios in term pregnancy. Inductions of labour and operative deliveries are increased. Cesarean section mostly indicated in patients with fetal distress and anhydramnios. Babies are relatively more prone to complications like meconium aspiration syndrome, neonatal sepsis and birth asphyxia. Continuous intrapartum fetal monitoring and good neonatal care are necessary for better perinatal outcome. Every case of oligohydramnios needs careful antenatal evaluation, parental counseling, individualized decision regarding timing and mode of delivery. All these efforts can give us better fetomaternal outcome.

### REFRANCES

1. D. C. Dutta: Textbook of Obstetrics, 9<sup>th</sup> edition, 2018; 34.
2. Park K. preventive medicine in obstetrics, paediatrics and geriatrics: Park's text book of preventive and social medicine. 20th edition. Jabalpur: M/S Banarasi Das Bhanot, 2009; 479-483.
3. Bangal VB, Giri PA, Sali BM Incidence of oligohydramnios during pregnancy and its effects on meternal and perinatal outcome. J Pharm Biomed Sci., 2011; 12: 1-4.
4. Phelan JP, Smith CV, Broussard P, Small M Amniotic fluid volume assessment with the four-quadrant technique at 36-42 weeks' gestation. J Repord Med, 1987; 32: 540-542.
5. Chauhan SP, Hendrix NW: Intrapartum oligohydramnios is not associated with adverse peripartum outcome among high risk parturient. Am J Obstet Gynecol, 1997; 176(6): 1130-1136.
6. Jun Zhang, James Troendle: Isolatel oligohydramnios is not associated with adverse perinatal outcome. Int J Gynaecol Obstet Mar, 2004; 3: 220-225.
7. Casey Brian M, Donald D Mcintire: Pregnancy outcomes after antepartum diagnosis of oligohydramnios at or beyond 34 weeks' gestation. Am J Obstet Gynecol, April 2000; 182(4): 909-912.
4. Wolff F, Schaefer R: Oligohydramnios- perinatal complications and diseases in mother and child. Geburtshilfe Frauenheilkd Mar, 1994; 54(3): 139-43.
8. Singhal SR \*, Gupta R Sen J, Low Amniotic fluid index as a predictor of adverse perinatal outcome an Indian perspective. Clinics in Mother and Child Health, Oct 2015, 12: 4.
9. Kaur Tajinder, Sood Ruchika, Feto- Maternal Outcome in pregnancies with abnormal AFL,IOSR Journal of Dental and Medical Sciences. March, 2016; 15(3): 71-75.
10. Gayatri Mathuriya, Megha Verma , Sudha Rajpoot, Comparative study of maternal and fetal outcome between low and normal amniotic fluid index at term. Int J Reprod Contracept Obstet Gynecol, Feb 2017; 6(2): 642-644.