



## PROSPECTIVE OBSERVATIONAL STUDY ON MATERNAL AND PERINATAL OUTCOMES OF POLYHYDRAMNIOS IN A TERTIARY CARE HOSPITAL

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**ABSTRACT** **BACKGROUND-** Modern obstetrics is the clinical practice concerned with the healthy mother and healthy baby. Polyhydramnios is defined as amniotic fluid index >24 cm or amniotic fluid volume >2000ml at term or single deep pocket > 8 cm or above 95 percentiles. Disorders of amniotic fluid volume can predict an underlying foetal or placental pathology. This study was undertaken to evaluate the causes of Polyhydramnios and explain if these volume extremes may be with increased risks for adverse pregnancy outcomes. **AIMS AND OBJECTIVES-** To assess the maternal and perinatal outcomes of polyhydramnios in a Tertiary care hospital government General hospital Anantapur. **METHODOLOGY-** This prospective observational Study was carried in the department Of OBGY at government General hospital Anantapur from August 2021 to July 2022. **RESULTS-** Most pregnant women 45% were in the age group of 25-30 years, Multigravida 60%, the cause of polyhydramnios was idiopathic in 55% of cases. The risk of preterm labour is seen 20% of cases cesarean section rate was 60% both elective and emergency. Congenital anomalies were detected in 12% of cases but the perinatal outcome was favorable.

**KEYWORDS :** polyhydramnios, congenital anomalies, idiopathic

### INTRODUCTION

Modern obstetrics is the clinical practice concerned with the healthy mother and healthy baby. Amniotic fluid provides a protected milieu for growing fetus, Cushning the fetus against mechanical and biological injury supplying nutrients and facilitating growth and movement. The quantity of amniotic fluid at any time in the gestation is the product of water exchange between mother foetus and placenta. Disorders of this regulatory process can lead to polyhydramnios. With the advent of real time USG assessment of amniotic fluid has been possible resulting in earlier recognition of abnormal conditions and possible intervention.

It is associated with high risk of poor pregnancy outcomes. Reported prevalence of polyhydramnios is 0.2 -1.6%. Polyhydramnios is defined as amniotic fluid index >24 cm or amniotic fluid volume >2000ml at term or single deep pocket > 8 cm or above 95 percentiles. Polyhydramnios is the term used to describe an excess accumulation of amniotic fluid. Medical disorders such as diabetes, PIH, intrauterine infections, drug usage, placental abnormalities are associated. Mostly idiopathic.

Fetal conditions like congenital and chromosomal abnormalities, multiple gestations are generally associated with half of the cases.

### AIMS AND OBJECTIVES

To assess the maternal and perinatal outcomes of polyhydramnios in a Tertiary care hospital government General hospital Anantapur.

### METHODOLOGY

This prospective observational Study was carried in the department Of OBGY at government General hospital Anantapur from August 2021 to July 2022 100 pregnant women having singleton pregnancy at period of gestation 34- 40 weeks presenting with polyhydramnios AFI > 25 CMS were included in the study. While parturient complicated with antepartum hemorrhage, myomectomy, hysterectomy and antenatal mothers requiring elective LSCS for medical and Obstetrics conditions not related to amniotic fluid variants were excluded from the study.

On admission detailed history and clinical examination was performed. Dating of pregnancy was done by LMP if sure of dates if not sure of dates calculated from 1st trimester USG or early 2nd Trimester. An USG at 34- 36 weeks for various fetal parameters including AFI was done. AFI was calculated using the four- quadrant technique as described by phelentel, along with-it Doppler was done.

The labour was monitored Partographically. The maternal outcome was assessed in terms of

1. Vaginal delivery
2. Caesarean section
3. Preterm Labour
4. Induction of Labour
5. Postpartum hemorrhage

Perinatal outcome was assessed in terms of

1. Birth weight
2. NICU admissions
3. Intrauterine deaths
4. Still births
5. Congenital malformations

### RESULTS

**TABLE 1: PATIENT PROFILE [AGE]**

MATERNAL CONDITIONS	NO. OF CASES	PERCENTAGE
Pre-eclampsia	5	5%
Gestational diabetes	30	30%
Idiopathic	55	55%

The study was carried out on 100 parturient with AFI > 25 CMS at 34-40 weeks in department of OBGY at government General hospital Anantapur from August 2021 to July 2022 after taking consent for willingness to participate in the study.

**TABLE 2: PATIENT PROFILE [GRAVIDA]**

MATERNAL COMPLICATIONS	NO. OF CASES	PERCENTAGE
Preterm labour	20	20%
Cord prolapse	5	5%
Post partum haemorrhage	10	10%
No complications	65	65%

**TABLE 3: MODE OF DELIVERY**

AGE	NO. OF CASES	PERCENTAGE
20-25YRS	25	25%
25-30YRS	45	45%
>30YRS	30	30%

**TABLE 4: MATERNAL CONDITIONS**

MODE OF DELIVERY	No. of cases	Percentage
Vaginal (spontaneous)	37	37

Vaginal(induced)	13	13
Emergency LSCS	28	28
Elective LSCS	32	22

**TABLE 5: MATERNAL COMPLICATIONS**

FETAL OUTCOME	NO. OF CASES	PERCENTAGE
Alive	70	70%
NICU admission	20	20%
Intrauterine death	5	5%
Still birth	3	3%
Perinatal death	2	2%

**TABLE 6: FETAL OUTCOME**

PARITY	NO. OF CASES	PERCENTAGE
primigravida	40	40%
multigravida	60	60%

**TABLE 7: PERINATAL OUTCOME**

PERINATAL OUTCOME	NO. OF CASES	PERCENTAGE
Low birth weight	20	20%
Jaundice	10	10%
Congenital malformations	12	12%
Shoulder dystocia	5	5%
Difficult delivery	7	7%
No complications	46	46%

**DISCUSSION**

In the present study maximum parturient are in the age group OF 25 – 30 years which was similar to study kaur Et al Mean age group 27 yrs. In the present study 60 % parturient are multigravida. Similarly in Study Tashfeen et al and guin et al incidence of Polyhydramnios was most common in Multigravida which was 81.1% and 86.7 % respectively.

Maternal conditions like diabetes associated with polyhydramnios is present in 30 % of cases. In studies conducted by Kaur et al and Gauin et al the association of diabetes is present in 14.3% and 20%. The standard association of diabetes is 18 %.

The association of PIH in present study 5 %. In study conducted by Many et al 1.4% and Magnan et al 6%.

Idiopathic association is seen in 60% cases in present study. Induction of labour was done in 13% in present study, in study conducted by Magnan et al and Guain et al, it is 6% and 13.3%.

EMLSCS was done in 28% of cases, for indications like, malpresentation, big baby, cord prolapse, foetal distress, which was similar to the study conducted by Kaur et al 28.6%.

Preterm labour seen in 13% of cases in present study, which is due to excessive uterine distension, in study conducted by Many et al and Kaur et al, it is 18.9 % and 12.8%.

Low birth weight babies seen in 20% of cases in our study, in study conducted by Kauret al it is 16%.

NICU admission in 20% of cases in present study, in study conducted by Magnan et al and kaur et al, 10% and 15% respectively.

Congenital malformations seen in 12% of cases in study conducted by Kaur et al is 7.9 %. According to standard guidelines, CMF seen in 2-10% which are mostly diagnosed after birth.

**CONCLUSION**

The intention of this study is to create awake fullness among the pregnant women regarding polyhydramnios, and its associated complications like fetal anomalies, postpartum hemorrhage, cord prolapse. Early diagnosis and attending hospital for healthy mother and healthy baby.

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