Journal of Cardiovascular Disease Research

ISSN:0975 -3583,0976-2833 VOL13, ISSUE 08, 2022

# The Study of Maternal and Fetal Outcome in Pregnant Women with Thyroid Disorders

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**Received Date: 11-10-2022, Revised Date: 20-10-2022, Accepted: 10-11-2022**

**ABSTRACT**

**Aim:** To study the maternal and foetal prognosis in thyroid disordered pregnant mothers by evaluating TSH,T3,T4 levels in pregnant women screened during antenatal period who came during study period of one year in Government general hospital, Ananthapuramu.

**Methodology:** The study's goal is to learn about the maternal and foetal outcomes. The study was a prospective study comprising 101 pregnant women attending the antenatal clinic, of which 95 had high TSH (hypothyroidism) and 6 had low TSH (hyperthyroidism).

**Results:** In our study, the mean mother age is 25.8 years, with a P value of 0.679 that is statistically insignificant. With a p value of 0.657, which is statistically insignificant, 43% of the 101 pregnant women in our research are primigravida and 57% are multigravida. There was a significant increase in hypothyroidism in overweight and obese women around 61% and 85 respectively (P value<0.661). There was a substantial rise in hypothyroidism in overweight and obese women, with 61% and 85 percent, respectively (P value<0.661). With a P value of 0.345, which is not statistically significant, 52% of 101 women had a history of thyroid diseases and 48% have no history of thyroid disorders. In our study, the incidence of preeclampsia is 20% with p valve 0.001, which is statistically significant. GDM has a 6% incidence with a P value of 0.05, which is not statistically significant. In our investigation, the incidence of abruption was 6%, with a statistically significant P value of 0.001. In our analysis, the prevalence of oligohydraminos was 13%, with a statistically significant P value of 0.001. The mean gestational age of delivery in our research was 37.5 weeks, with a P value of 0.181, which is statistically insignificant. In our study, the incidence of caesarean section is 52%, spontaneous vaginal birth is 46%, and assisted vaginal delivery is 2%, with a P value of 0.926, which is statistically insignificant. The rate of newborn mortality is 6%, with a p value greater than 0.05 being statistically insignificant. The incidence of foetal discomfort is 32%, with a statistically significant p value of 0.001. The prevalence of IUGR is 24%, with a statistically significant P value of 0.05. The incidence of NICU hospitalizations is 13%, with a statistically significant P-valueless than 0.001.

**Conclusion:** In conclusion, maternal thyroid problems have a high potential to harm maternal and foetal outcomes, and they are also linked to a variety of other i problemsthat can harm maternal and foettal outcome. If the problem is found early, it is simple to treat with minimal risk to the mother and foetus. As a result, this illness requires early discovery, prompt treatment to start, proper follow-up, and, very significantly, adequate education of clinicians and patients about these goals, the relevance of this condition, and the simplicity and benefits of prompt therapy.

**Keywords: Maternal Complications, Thyroid, NICU, IUGR, Foetal Outcome**

## INTRODUCTION

After diabetes mellitus, thyroid disorders are the next most common etiology of endocrine dysfunction in femals of fertile age group. Thyroid hormone(T3,T4,TSH) imbalances can have an impact on fertility, maternal health, and foetal growth and development.[1,2]

Maternal thyroid disorders that manifest during early pregnancy can have an impact on pregnancy's outcome and foetal development. It is now established that both overt and subclinical thyroid dysfunction have serious consequences for pregnancy and foetal development. Miscarriage, pregnancy-induced hypertension, and its more severe form, pre-eclampsia, are among the negative pregnancy outcomes, as are placental abruption, anaemia, post-partum haemorrhage,[9,10] and increased foetal morbidity and mortality.

These obstetric complications contribute to an rise in overall frequency of adverse neonatal outcomes, such as preterm, low birth weight (any grade), and increased admission to NICU and increasing perinatal mortality and associated morbidity

Low iodine intake results in decreased iodine availability to the baby and a considerable increase in the incidence of stillbirth and abortion in pregnant mothers. It slows the learning disabilities and decreased motivation for performance in later childhood are caused by the neurological development of the fetus as well as cognitive impairment.

Contrary to hypothyroidism, hyperthyroidism during pregnancy is uncommon. During pregnancy, hyperthyroidism with no due treatment is linked mortality of foetus and mother.

ISSN:0975 -3583,0976-2833 VOL13, ISSUE 08, 2022

Graves' disease presenting in neonates, which affects 1-5% of infants, can be seen as a result of the mother's TRAb passing to the baby.
Some expert panels have recommended routine screening for maternal thyroid problems due to the potential negative effects of the condition and the clear benefits of therapy all pregnant women should undergo a thyroid function test.

The current study is being conducted to learn about the maternal - fetal outcomes in pregnant women who have thyroid problems. The study's goal was to find out how pregnant women with thyroid problems fared in terms of maternal - fetal outcomes.

**AIMS AND OBJECTIVES**

1. To study the maternal and foetal prognosis in thyroid disordered pregnant mothers by evaluating TSH,T3,T4 levels in pregnant women screened during antenatal period who came during study period of one year in Government general hospital, Ananthapuramu.
2. To reduce miscarriages, premature birth, preeclampsia, and abruption in pregnantwomen with thyroid problems.
3. To prevent IUGR, low birth weights, neonatal hypothyroidism, NICU admission

**MATERIALS AND METHODS**

**Study design** : A Prospective randomised Study
**Duration of the study** : 12 months (AUGUST 2021-AUGUST 2022)
**Sample size** : Minimum 100
**Place of study** :GOVERNMENT MEDICAL COLLEGE, ANANTHAPURAMU

***Subject Criteria:***
All pregnant women, who booked for antenatal care at the hospital during thestudy period with abnormal TSH levels.

**Study Population**
101 subjects
*Exclusion Criteria*
1. Women with past h/o significant elevated BP diagnosed prior to pregnancy
,pre-gestational Diabetes.
2. Patients who were lost for follow-up.
*Details of Study*
101 pregnant women attending antenatal OP were included in the Study and detailed history regarding thyroid status was obtained .A sample ofblood drawn for TSH and estimated by sensitive chemiluminescent method.[1]
Abnormal TSH values were defined as mentioned below
The normal cutoff value for TSH was defined as 0.1-2.5mIU/mL. Lower limitrange for diagnosis of hyperactivity of Thyroid:0.1mIU/mL. Upper limit range for diagnosis of hypoactivity of thyroid: 2.5mIU/ml .Abnormal values were further followed up with freeT4 and free T3.Patients with abnormal TSH were investigated and treated accordingly. They were followed till term to note the maternal and fetal outcome.

***Sample collection:***
The blood sample is taken for the test along with the other routine antenatal
***Blood investigations***
Outcomes Determined
Pregnant women with abnormal TSH were further

Divided into those with TSH>2.5mlU/mL (suggestive of hypothyroidism) andthose with TSH<0.1mIU/m L (suggestive of hyperthyroidism)
***Statistical analysis:***
It was done by using Chi-squaretest. A‘p’value < 0.05 was consideredstatistically significant.

**OBSERVATION & RESULTS**
This is a prospective study of 101 pregnant women with thyroid problems who attended the prenatal clinic at the Government Medical College and Hospital in Ananthapuram for one year with prior informed permission.
TSH levels were high in 95 of the 101 women (indicating hypothyroidism) and reducedin six ( hyperthyroidism).

The major goal of this study was to investigate the maternal and foetal outcomes in pregnant women with thyroid problems.
The Chi-square test was used for statistical analysis. A 'p' value of less than 0.05 wasdeemed statistically significant.

ISSN:0975 -3583,0976-2833 VOL13, ISSUE 08, 2022

*MATERNAL AGE DISTRIBUTION (Table1)*

The mean maternal age is 25.8 with a P-value 0.679 which is statistically not significant in our study. Out of 101 women 7 are below 20 years of age and 2 are more than 36 years of age.

**Table 1. MATERNAL AGE DISTRIBUTION (Table1)**

| Age | No. of Patients | % |
|---|---|---|
| < 20 Years | 7 | 6.9 |
| 21 - 25 Years | 50 | 49.5 |
| 26 - 30 Years | 29 | 28.7 |
| 31 - 35 Years | 13 | 12.9 |
| > 36 Years | 2 | 2.0 |
| Total | 101 | 100.0 |
| Age | 25.89 ± 4.66 | |

**Table 2. Distribution of Age**

| Age | TSH | | | | | |
|---|---|---|---|---|---|---|
| | hyperthyroid | | Hypothyroid | | Total | |
| | No. of Patients | % | No. of Patients | % | No. of Patients | % |
| < 20 Years | 0 | .0 | 6 | 6.4 | 6 | 6.0 |
| 21 - 25 Years | 3 | 50.0 | 47 | 50.0 | 50 | 50.0 |
| 26 - 30 Years | 3 | 50.0 | 26 | 27.7 | 29 | 29.0 |
| 31 - 35 Years | 0 | .0 | 13 | 13.8 | 13 | 13.0 |
| > 36 Years | 0 | .0 | 2 | 2.1 | 2 | 2.0 |
| Total | 6 | 100.0 | 94 | 100.0 | 100 | 100.0 |
| Chi-square | $\chi 2 = 2.311^{@}$; (p = 0.679) ; df= 4; Not significant; | | | | | |

**Parity:**

Among the 101 pregnant women in our study 43% are primi gravida and 57 % are multigravida with a p value 0.657 which is statistically not significant. 42.6% of hypothyroid women are primi gravida and 57.4 % are multi gravida. Among hyperthyroidism 33% are primi gravida and 66% are multi gravida.

**Table No. 3 Parity**

| Parity | No. of Patients | % |
|---|---|---|
| Primigravida | 43 | 42.6 |
| Multigravida | 58 | 57.4 |
| Total | 101 | 100.0 |

**Table 4. PARITY Vs TSH**

| Parity | TSH | | | | | |
|---|---|---|---|---|---|---|
| | Hyperthyroid | | Hypothyroid | | Total | |
| | No. of Patients | % | No. of ents | % | No. of ents | % |
| Primi | 2 | 33.3 | 40 | 42.6 | 42 | 42.0 |
| Multi | 4 | 66.7 | 54 | 57.4 | 58 | 58.0 |
| Total | 6 | 100.0 | 94 | 100.0 | 100 | 100.0 |
| Chi-square | $\chi 2 = 0.197^{@}$; (p = 0.657) ; df= 1; Not significant; | | | | | |

**BMI**

There was a remarkable rise in hypothyroidism in overweight and obese women around 61% and 85 respectively (P value<0.661).

**Table 5. BMI**

| BMI | No. of Patients | % | |
|---|---|---|---|
| Under Weight | 6 | 5.9 | |
| Normal | 26 | 25.7 | |
| Over weight | 61 | 60.4 | |
| Obese | 8 | 7.9 | |

ISSN:0975 -3583,0976-2833 VOL13, ISSUE 08, 2022

| | | | |
|---|---|---|---|
| Total | 101 | 100.0 | |
| Mean BMI | 26.12 ± 3.69 | | |

**Table 6. BMI Vs TSH**

| BMI | TSH | | | | | |
|---|---|---|---|---|---|---|
| | Hyperthyroid | | Hypothyroid | | Total | |
| | No. of Patients | % | No. of Patients | % | No. of Patients | % |
| Under Weight | 0 | .0 | 6 | 6.4 | 6 | 6.0 |
| Normal | 1 | 16.7 | 24 | 25.5 | 25 | 25.0 |
| Over weight | 5 | 83.3 | 56 | 59.6 | 61 | 61.0 |
| Obese | 0 | .0 | 8 | 8.5 | 8 | 8.0 |
| Total | 6 | 100.0 | 94 | 100.0 | 100 | 100.0 |
| Chi-square | $\chi 2 = 1.593^{@}$; (p = 0.661) ; df= 3; Not significant; | | | | | |

**Previous history of thyroid disorder**

Among 101 women 52 % have previous history of thyroid disorders and 48% have no previous history of thyroid disorders with a P value of 0.345 which is not statistically significant. Among pregnant with hypothyroidism 53.2% are already known cases of hypothyroidism on treatment.

**Table 7. Previous history of Thyroid**

| Previous history Thyroid | No. of Patients | % |
|---|---|---|
| Positive | 52 | 51.5 |
| Negative | 49 | 48.5 |
| Total | 101 | 100.0 |

**Table 8.Thyroid Vs TSH**

| Thyroid | TSH | | | | | |
|---|---|---|---|---|---|---|
| | Hyperthyroid | | Hypothyroid | | Total | |
| | No. of Patients | % | No. of ents | % | No. of ents | % |
| Positive | 2 | 33.3 | 50 | 53.2 | 52 | 52.0 |
| Negative | 4 | 66.7 | 44 | 46.8 | 48 | 48.0 |
| Total | 6 | 100.0 | 94 | 100.0 | 100 | 100.0 |
| Chi-square | $\chi 2 = 0.891^{@}$; (p = 0.345) ; df= 1; Not significant; | | | | | |

**Maternal complications**

Maternal complications include pre eclampsia, gestational diabetis mellitus, abruption ,abortions, oligohydraminos. The incidence of preeclampsia is 20% with p valve <0.001 which is statistically significant in our study . The incidence of GDM is 6% with a P value 0.05 which is not statistically significant.

The incidence of abruption in our study is 6% with a P value <0.001 which is statisticallyremarkable

The incidence of abortion is 1% in our study. The incidence of oligohydraminos in our study is 13% with a P-value <0.001 which is statistically significant. Among hypothyroid pregnant women maternal complications include preeclampsia(17%),GDM(6.4%),abruption (4.3%), oligohydraminos (10.6%),abortions (1%), Among hyperthyroid pregnant women 4 patients have preeclampsia , 2 pateints have abruption,3 patients have oligohydraminos.

**Table 9. Maternal Complications**

| MATERNAL COMPLICATIONS | No. of Patients (n=101) | % |
|---|---|---|
| GDM | 6 | 5.9 |
| ABR | 6 | 5.9 |
| Abortion | 1 | 1.0 |
| Oligohydramnios | 13 | 12.9 |
| Total | 101 | 100.0 |
| | | |

ISSN:0975 -3583,0976-2833 VOL13, ISSUE 08, 2022

**Table 10. Maternal Complications VS TSH**

| Maternal Complications | TSH | | | | | | Sig. |
|---|---|---|---|---|---|---|---|
| | erthyroid(n=6) | | pothyroid (n=94) | | Total (N =100) | | |
| | No. of Patients | % | No. of Patients | % | No. of Patients | % | |
| PE | 4 | 66.7 | 16 | 17.0 | 20 | 20.0 | **P<0.001 |
| GDM | 0 | 0.0 | 6 | 6.4 | 6 | 6.0 | @P>0.05 |
| ABR | 2 | 33.3 | 4 | 4.3 | 6 | 6.0 | **P<0.001 |
| Abortion | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | - |
| Oligo hydramnios | 3 | 50.0 | 10 | 10.6 | 13 | 13.0 | **P<0.001 |

**Table No. 11 Gestational age at delivery**

| Gestational Age at Distribution | No. of Patients (n=101) | % |
|---|---|---|
| < 34 Weeks | 6 | 5.9 |
| 34 - 37 Weeks | 41 | 40.6 |
| 37 - 40 weeks | 40 | 39.6 |
| 40 - 42 Weeks | 14 | 13.9 |
| Total | 101 | 100.0 |
| Mean GA | 37.55 ± 3.483 | |
| Preterm (< 37 weeks | 47 Cases | |

**Table 12. Gestational age Vs TSH**

| Gestational Age at distribution | TSH | | | | | |
|---|---|---|---|---|---|---|
| | Hyperthyroid | | Hypothyroid | | Total | |
| | No. of Patients | % | No. of ents | % | No. of ents | % |
| < 34 Weeks | 0 | .0 | 5 | 5.3 | 5 | 5.0 |
| 34 - 37 Weeks | 5 | 83.3 | 36 | 38.3 | 41 | 41.0 |
| 37 - 40 weeks | 1 | 16.7 | 39 | 41.5 | 40 | 40.0 |
| 40 - 42 Weeks | 0 | .0 | 14 | 14.9 | 14 | 14.0 |
| Total | 6 | 100.0 | 94 | 100.0 | 100 | 100.0 |
| Chi-square | $\chi 2 = 4.872$@; (p = 0.181) ; df= 3; Not significant; | | | | | |

Mean geastational age of delivery in our study is 37.5 weeks in our study with a P value0.181 which is statistically not significant. The incidence of preterm delivery is 47 % (< 37 WEEKS) in our study. Among hypothyroid pregnant women incidence of preterm delivery is 53.6%.

**Table 13. Mode of delivery**

| Mode of Delivery | No. of Patients (n=101) | % |
|---|---|---|
| Abortion | 1 | 1.0 |
| SVD | 46 | 45.5 |
| LSCS | 52 | 51.5 |
| AVD | 2 | 2.0 |
| Total | 101 | 100.0 |

**Table 14. MOD Vs TSH**

| Mode of Delivery | TSH | | | | | |
|---|---|---|---|---|---|---|
| | Hyperthyroid | | Hypothyroid | | Total | |
| | No. of Patients | % | No. of ents | % | No. of ents | % |
| SVD | 3 | 50.0 | 43 | 45.7 | 46 | 46.0 |
| CS | 3 | 50.0 | 49 | 52.1 | 52 | 52.0 |
| AVD | 0 | .0 | 2 | 2.1 | 2 | 2.0 |

ISSN:0975 -3583,0976-2833 VOL13, ISSUE 08, 2022

| | | | | | | |
|---|---|---|---|---|---|---|
| Total | 6 | 100.0 | 94 | 100.0 | 100 | 100.0 |
| Chi-square | $\chi 2 = 0.155^{@}$; (p = 0.926) ; df= 2; Not significant; | | | | | |

The incidence of caesarean section in our study is 52% , spontaneous vaginal delivery is 46%, assisted vaginal delivery is 2%, with a P value 0.926 which is statistically not significant.

**Table No. 15.NEONATAL COMPLICATIONS**

| | | No. of Patients | % |
|---|---|---|---|
| Still Born | Nil | 96 | 95.0 |
| | SB | 5 | 5.0 |
| | **Total** | **101** | **100.0** |
| *Neonataldeath* | NIl | 95 | 94.1 |
| | NND | 6 | 5.9 |
| | **Total** | **101** | **100.0** |
| Fetal distress | Nil | 69 | 68.3 |
| | Fetal Distress | 32 | 31.7 |
| | **Total** | **101** | **100.0** |
| IUGR | Nil | 77 | 76.2 |
| | Positive | 24 | 23.8 |
| | **Total** | **101** | **100.0** |
| NICU Admission | NIl | 88 | 87.1 |
| | Yes | 13 | 12.9 |
| | **Total** | **101** | **100.0** |

**Table 16.Neonatal Complications Vs TSH**

| Neonatal Complications | TSH | | | | | | Sig. |
|---|---|---|---|---|---|---|---|
| | erthyroid(n=6) | | pothyroid (n=94) | | Total (N =100) | | |
| | No. of Patients | % | No. of Patients | % | No. of Patients | % | |
| SB | 2 | 33.3 | 3 | 3.2 | 5 | 5.0 | **P<0.001 |
| NND | 1 | 16.7 | 5 | 5.3 | 6 | 6.0 | $^{@}$P>0.05 |
| FD | 5 | 83.3 | 27 | 28.7 | 32 | 32.0 | **P<0.001 |
| IUGR | 4 | 66.7 | 20 | 21.3 | 24 | 24.0 | *P<0.05 |
| NICU Admission | 3 | 50.0 | 10 | 10.6 | 13 | 13.0 | **P<0.001 |

The incidence of still birth is 5% with a p value ,<0.001 which is statistically significant.
The incidence of nenonatal death is 6% with a p value >0.05 which is statistically notsignificant.
The incidence featal distress is 32% with a p value <0.001 which is statistically significant. The incidence of IUGR is 24% with a P value <0.05 which is statistically significant.
The incidence of NICU admissions is 13% with P value <0.001 which is statisticallysignificant.
Among hypothyroid pregnant women neonetal complications include still birth (3.2%), neonatal death (5.3%),fetal distress(28.7%),IUGR(21.3%),NICU admissions (10.6%) among hyperthyroid pregnant women nenonatal complications include still birth in 2 cases, neonatal death in 1 case, fetal distress in 5 cases, IUGR in 4 cases ,NICU admissions in 3 cases.

**DISCUSSION**

For one year, this study was carried out at the Government Medical College and Hospital in Ananthapuram.
The study's goal was to learn about the maternal and foetal outcomes in pregnant womenwith thyroid problems.
The study was a prospective study comprising 101 pregnant women attending the prenatal clinic, 95 of whom had high TSH (hypothyroidism) and 6 of whom had low TSH (hyperthyroidism)

**MATERNAL AGE**

The mean maternal age is 25.89.Most of the women are between the age group 21 to 25 years followed by between 26 to 30 years of age.

**PARITY**

Around 43 % were primi gravida and 57 % were multigravidas in our study. The parity showed a high incidence of multigravida Women especially hypothyroid group.

ISSN:0975 -3583,0976-2833 VOL13, ISSUE 08, 2022

**BMI**:
About 64% of hypothyroid pregnant women are overweight and obese in my study indicates that incidence of hypothyroid is more in obese and overweight women.

**PREVIOUS HISTORY OF THYROID DISORDERS**
Out of 101 women 52 have previous history of thyroid imbalance in our study with aP VALUE OF 0.345.

**GESTATIONAL AGE AT DELIVERY**
The average gestational age at birth is 37.5 weeks in our study About 47% of the deliveries were preterm ( <37 weeks ).PREGNANCY OUTCOME :. In my study, there was a rise in the incidence of pre-eclampsia (20%), abruptio placenta (6%), gestational diabetes mellitus (6%), abortion (1%), oligohydramnios (13%), IUGR (23.8%), preterm delivery (47%), low birthweight (37%), foetal distress (31.7%), NICU admissions (12.9%), stillbirth (5%), and neonatal death (5.9%).

**PRE ECLAMPSIA:**
Chronic endothelial cell damage, which is mediated in part by abnormal thyroid hormone levels, can have long-term cardiovascular consequences. Preeclampsia is regarded in this sense as a sickness with Endothelial cell activation causes multiorgan involvement. Therefore, it makes sense to hypothesise that aberrant thyroid hormone imbalance contribute independently or jointly to the onset of preeclampsia in women with a hereditary predisposition to the condition. By increasing the amount of beta adrenoceptors and acting in the reverse way on alpha adrenergic receptors, thyroid hormones amplify the beta adrenergic response. Beta adrenoceptor density on vascular beds decreases whereas alpha-1 adrenoceptor density rises in the hypothyroid state. Alpha adrenoceptor activation mostly includes smooth muscle cell contraction, which narrows the blood vessel.

In our study the incidence of preeclampsia is 20 % with p value of 0.001 whis is statistically significant It is related to a research conducted by Ozdemir H et al (14.5%). [2]

In a research by Wilson et al[3] on pregnancy outcomes in 24,883 women, the total incidences of hypertension in pregnancy were 6.2%, 8.5%, and 10.9% in the subclinical hyperthyroid, euthyroid, and subclinical hypothyroid groups, correspondingly.

**PLACENTAL ABRUPTION AND PRETERM DELIVERY**
There is evidence that preterm birth, vascular illnesses like preeclampsia, and placental abruption may all be caused by defective early placentation, which is one unifying hypothesis. Thyroid hormone is also important for optimal placental development. Both thrombosis and haemorrhage can occur at the uteroplacental interface, especially when there is a physically deficient placenta. Such pathogenesis may be mediated by a number of causes, such as tissue factor synthesis in response to abnormal VEGF and the release of inflammatory cytokines that encourage thrombosis. Additionally, shallow extravillous thromboblast invasion (EVT) can result in placental hypoxia and haemorrhage, which can locally produce thrombin and cause the extracellular matrix to degrade prematurely, separating the placenta from the uterus. In our study the incidence of abruption is 6% with a Pvalue <0.001 which is statistically significant. The incidence of preterm delivery is 47%.

Caseyetal[4] discovered that women with subclinical hypothyroidism were a three-fold greater risk to have placental abruption and two times more likely to have premature birthin a study of 25,756 pregnant women.

**GESTATIONALDIABETES**
Diabetes patients frequently have thyroid antibodies, which suggests that thyroid dysfunction and insulin resistance may both be risk factors for the disease. According to Tudela CMetal's study[30], the anticipated percent of gestational diabetes increased from 1.9% to 4.9% when thyrotropin levels went from 0.001 to 10 milliunits/L (P=.001), indicating that thyrotropin level impacts the chance of developing gestational diabetes. The current study found a 6% incidence of GDM with a P value greater than 0.05.

**ABORTIONS**
Antibodies to thyroid peroxiadase (TPO-AB) or thyroglobulin have been associated to a significant increase in pregnancy losses.

**OLIGOHYDRAMINOS**
In present study incidence oligohydromnios is 13% with a P value <0.001 which is statistically significant.

ISSN:0975 -3583,0976-2833 VOL13, ISSUE 08, 2022

**LOW BIRTH WEIGHT**

The growth and development of the fetus depends on thyroid hormone. Research by Leung et al[6] Compared to 6.8% of controls, 22% of mothers with hypothyroidism had low birth weight. In our study, 37% of babies with low birth weights (less than 2.5 kg) were born.

**FETAL DISTRESS**

The likelihood of fetal distress during labour has been increased due to hypothyroidism, which has been suggested to have an irreversible effect on the baby and placenta early in pregnancy. Fetal distress is frequent in hypothyroid pregnancies. In a study by Poonam et al [7], pregnant hypothyroid women had a 20% prevalence of perinatal distress compared to 6% prevalence in the healthy group. Incidence of fetal distress is 32% with a P value<0.001 which is statistically significant.

**ROLE OF SCREENING FOR THYROID DISORDERS IN PREGNANCY**

Unlike in western world the incidence of hypothyroidism is higher in India. Various studies in India Sahueta[8],Vimal Nambiar et al[9] confirm the higher incidence of hypothyroidism in India. Further there was no increase in adverse pregnancy outcomes in adequately treated hypothyroidism where as 63 untreated/inadequately treated hypothyroidism was associated with statistically significant increase in adverse pregnancy outcomes .Studies by BijayVaidya, Dr.Lazarus[10] and Negro et al[11] further eiterate the point.

**CONCLUSION**

In conclusion, maternal thyroid problems have a high potential to harm maternal and foetal outcomes, and they are also linked to a variety of other i problemsthat can harm maternal and foettal outcome. If the problem is found early, it is simple to treat with minimal risk to the mother and foetus. As a result, this illness requires early discovery, prompt treatment to start, proper follow-up, and, very significantly, adequate education of clinicians and patients about these goals, the relevance of this condition, and the simplicity and benefits of prompt therapy.

Early prenatal screening for hypothyroidism should really be made mandatory. All obstetricians, endocrinologists, doctors, and lab technician should be made aware of the distinct pregnancy-specific and trimester-specific thyroid hormone ranges. From the first prenatal checkup onward, all patients should have a TSH of 2.5 mIU/ml or below. A collaborative effort by all medical experts engaged will result in improved maternal and newborn health. More importantly, it will contribute to raising the IQ of India's and the world's unborn generations. Ensuring proper iodine consumption and, where needed, administering a single pill of thyroxine has the potential to ensure an intelligent India anda smarter world in the future.

**Conflict of Interest: None**
**Funding Support: Nil**

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