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Research Article

A STUDY ON HYPOTHYROIDISM IN PREGNANCY AND ITS OBSTETRIC AND FETAL OUTCOME

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ABSTRACT

To identify the incidence of hypothyroidism in pregnant women by screening with serum TSH in their antenatal visits and treat the TSH positive patients and protecting them from going to preterm labour, intra uterine deaths, and other complications.

INTRODUCTION

The thyroid gland secretes thyroid hormones which influence the metabolic rate and protein synthesis. The hormones also have many other effects including those on development. The thyroid hormones Tri iodo thyronine & Thyroxine are created from iodine and thyroxine. The thyroid also produces the hormone Calcitonin which plays a role in Ca.hemostasis. Thyroid gland increases 10% in size during pregnancy in iodine depleted countries and 20-40% in iodine deficiency.

Overt hypothyroidism complicates 2-3 pregancies per 1000, whereas subclinical 5%. Untreated or inadequately treated overt hypothyroidism women experience about 40% incidence of anemia, pre-eclampsia, placental abruption and post partumhemorrhage , 30% small for gestation& 10% perinatal mortality.

Keeping in view the following background the aim was to find out the benefits of doing a routine antenatal thyroid function tests and starting treatment.

Aims and Objectives

1. To know the incidence of hypothyroidism among pregnant women.
2. To know the obstetric and from hypothyroidism fetal outcome among pregnant women suffering.

MATERIAL AND METHODS

Design- Cross Sectional Study

This study was conducted at Alluri sitaramaraju Academy of medical sciences, Eluru, which is a teaching hospital.

200 Antenatal cases were included from October 2016-October2018 and all of them irrespective of gestational age screening with serum TSH

Inclusion Criteria: Antenatal cases visiting obstetric OPD Patients in labour Singleton/ twin pregnancy Primi and multigravida Patients in all 3 trimesters Patients previously diagnosed and on treatment

Exclusion Criteria: Pregnant women with hypertension, Pre-eclampsia, collagen vascular disease, h/o heart disease, h/o diabetes.

Tsh Estimation in Chemoluminiscence Immunoassay

RESULTS

Incidence of Euthyroid, Hypothyroid in Total Subjects

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Thyroid	Cases	Percentage
Euthyroid	112	56%
Hypothyroid	88	44%
Total	200	100%

The above table shows the percentage of hypothyroidism (>4m iu/ml) are 44%, euthyroid (<4Miu/ml) are 56%.

Cases of Overt Hypothyroid and Subclinical Hypothyroid in Total Subjects

Cases	Frequency	Percentage
Overt hypothyroid	6	6.8%
Subclinical hypothyroid	82	83.2%
Total	88	100%

P-Value 0.0001**

The above table shows overt hypothyroidism and subclinical hypothyroid has significant p value is 0.0001(<0.05) using T-test.

Low Birth Weight (<2.5kgs), Normal Birth Weight in Euthyroid and Hypothyroid Cases

	Euthyroid (<4m iu/ml)	Percentage	Hypothyroid (>4m iu/ml)	Percentage	Total
Lbw	17	15.1%	43	48.8%	60
Normal birth weight	95	74.9%	45	51.2%	140
Total	112	100%	88	100%	200

The above table shows 15.1% of euthyroid are LBW, 48.8% are LBW, 74.9% of euthyroid have normal birth weight, 51.2% of hypothyroid have normal birth weight, the association of 2 objectives are significant because P Value is 0.000(<0.05) using Chi square test value is 5.67.

Pregnancy Outcome in Euthyroid and Hypothyroid in Total Subjects

Outcome	Euthyroid (<4m iu/ml)	Percentage	Hypothyroid (>4m iu/ml)	Percentage	Total
Oligohydraminos	7	16.2%	7	7.9%	14
Abruption/aph	1	2.3%	5	5.6%	6
Preterm	12	27.9%	42	47.9%	54
Fetal distress	8	18.9%	16	18.1%	24
Iugr	1	2.3%	1	1.1%	2
Pprom	2	4.6%	7	7.9%	9
Prom	8	18.6%	1	1.1%	9
Abortions	3	6.4.%	4	4.5%	7
Iud	1	2.3%	5	5.8%	6
Total	43	100%	88	100%	131

The above table shows 16.2% cases of oligohydraminos in euthyroid and 7.9% in hypothyroid, 2.3% of abruption or APH in euthyroid and 5.6% in hypothyroid 27.9% cases of preterm delivery in euthyroid cases and 47.9% in hypothyroid cases, 18.9% cases of fetal distress in euthyroid and 18.1% cases in hypothyroid, 2.3% cases of IUGR IN EUTHYROID cases and 1.1% in hypothyroid cases,4.6% of cases of PPROM in euthyroid and 7.9% in hypothyroid cases,18.6% of PROM in euthyroid,1.1%, in hypothyroid,6.9% of cases of abortions in euthyroid,4.5% in hypothyroid, 2.3% of cases of intrauterine deaths in euthyroid and 5.8% in hypothyroid cases, of all these cases p value is significant for oligohydraminos, preterm, PPROM, fetal distress and IUD. But more number of cases are preterm.

DISCUSSION

Hypothyroidism is usually caused by a primarily thyroid abnormality.In pregnant or postpartum women, the most common causes are chronic thyroiditis/

Chronic auto immune thyroiditis ,subacute thyroiditis, radioactive iodine therapy & iodine deficiency. Signs and symptoms are , muscle cramps, cold intolerance ,constipation, hairloss. Cretinism occurs with untreated congenital hypothyroidism.

SUMMARY &CONCLUSION

In present study percentage of hypothyroid are 44% and percentage of euthyroid are 56% And percentage of overt hypothyroid are 6.8% and percentage of subclinical hypothyroid are 83.2% and percentage of low birth weight in hypothyroid are 48.8% and percentage of normal birth weight in hypothyroidism are 45%, and 16.2% cases of oligohydraminos in euthyroid, 7.9% in hypothyroid ,2.3% of abruption or APH in euthyroid and 5.6% in hypothyroid , 27.9% cases of preterm labour in euthyroid cases and 47.9% in hypothyroid cases, 18.9% cases of fetal distress in euthyroid and 18.1% cases in hypothyroid, 2.3% cases of IUGR in euthyroid and 1.1% in hypothyroid, 4.6% of cases are PPROM in euthyroid and 7.9% in hypothyroid, 18.6% of PROM in euthyroid and 1.1% in hypothyroid, 6.9% of cases of abortions in euthyroid and 4.5% in hypothyroid, 2.3% of cases of intrauterine deaths in euthyroid and 5.8% in hypothyroid, of all these patients with hypothyroidism are more prone to preterm labour, oligohydraminos, fetal distress, and IUD. Prevalence of hypothyroidism in present study,44% patients were hypothyroid.

Sno	study	Occurence
1	Klein *et al*	2.5%
2	Allan *et al*	2.2%
3	Kumar *et al*	2.5%
4	Haddow *et al*	10%
5	Vaidya *et al*	6.3%
6	Casey *et al*	3.4%
7	Moleti M *et al*	11.8%
8	Nath J *et al*	2.5%
9	Dhanwal DK *et al*.	36.07%
10	Saki F *et al*.,	13.7%
11	Hassan M *et al*.,	34.22%
12	Saraladevi R *et al*.,	11.6%
13	Blatt AJ *et al*	15.5%
14	Present study	26%

Preterm Births

S no	Study	Preterm Births
1	Devi PU *et al*	11.76%
2	Saraladevi *et al*	7.81%
3	Nath J *et al*	2.2%
4	Sahu MT *et al*	10.3%
5	Leung, *et al*	9%
6	Kirplani A *et al*	25%
7	Taghavi, *et al*	2.7%
8	Davis LS, *et al*	19%
9	Present study	41.2%

Fetal Distress

S no	Study	Fetal distress
1	Devi PU *et al*.,	3,92%
2	Nath J *et al*	14.5%
3	Present study	18.1%

CONCLUSION

Thyroid hormone is essential for early placental development in pregnancy. Especially during the first twelve weeks of pregnancy, the fetus entirely depends upon the maternal hormone for the normal neural and skeletal development.

Thus TSH measurement is a useful screening test, which can be offered to all antenatal women to identify and follow up specially , so that they can be given better monitoring and surveillance so as to decrease the mortality and morbidity of both mother and new born.

A TSH positive detected in the antenatal period should alert the treating obstetrician to the possibility of adverse outcome like IUGR, Congenital hypothyroidism.

Prompt action at this stage would go a long way in reducing the maternal and fetal morbidity due to thyroid disorders of pregnancy.

Reference

1. Gyton& Hall 2011, P.907
2. Alexander EK, Pearce EN, Brent GA, Brown RS, Cnen H, Dosiou C *et al*., Guidelines of the American Thyroid Association for the Diagnosis ana Management of Thyroid Disease During Pregnancy and Postpartum.2017:27(3):315-389
3. Cunningham FG, Leveno KJ, Bloom SL, Hauth JC, Gilstrap LC, Westrom KD. 23rd edition. Thyroid and other endocrine disorders. Williams Obstetrics:53:1131
4. Davis LE, Levono KJ, Cunningham FG. Hypothyroidism complicating pregnancy. ObstetGynaecol 1990:97:536-39.
5. Schroeder BM. ACOG Practice Bulletin on Thyroid Disease in Pregnancy. Am Fam Physician.2002 May 15;65(10):2158-2162.
6. Klein RZ ,Haddow JE, Faix JD, Brown RS, Hermos RJ, Pulkkinen A *et al*. Prevalence of thyroid deficiency in pregnant women . Clin Endocrinol 1991:35;41-6.
7. Maternal thyroid deficiency and pregnancy complications; implications for population screening. J M-Allan WC, Haddow JE ,Palomaki GE, Willia,ms JR, Mitchell ML, Hermos RJ. ed Screen .2000;7:127-130.

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