



PREVALENCE OF HYPOTHYROIDISM IN PREGNANCY IN EASTERN ORISSA

Dr.Sarika Avasthi

MD, Associate Professor, Dept. of Obstetrics & Gynaecology, KIMS, Bhubaneswar, Odisha

Dr.Asima Das

Associate Professor, Dept. of Obstetrics & Gynaecology, KIMS, Bhubaneswar, Odisha

Dr.Lipipuspa Pattnaik

Assistant Professor, Dept. of Obstetrics & Gynaecology, KIMS, Bhubaneswar, Odisha

ABSTRACT

Background: Thyroid disorders are prevalent in women of child bearing age. Uncorrected thyroid disorders in pregnancy have adverse effect on maternal and foetal well being. Women with thyroid disorders both overt and subclinical are at increased risk of pregnancy related complication so needs to be screened.

Materials And Methods: This study was carried out in pregnant women attending antenatal clinic of Pradumna Bal Memorial Hospital in eastern Orissa to know the prevalence of hypothyroidism in pregnant woman.

Results: In this study prevalence of hypothyroidism was found to be 10.8%. Subclinical hypothyroidism and overt hypothyroidism was 7.6% and 3.2% respectively.

Conclusion- This study concludes that there is a high prevalence of hypothyroidism in pregnancy majority being subclinical. It has been substantiated in other studies in other states and more studies are required so that universal screening of hypothyroidism should be done in our country.

KEYWORDS : subclinical hypothyroidism, overt hypothyroidism, pregnancy, orissa

Introduction- Thyroid diseases are prevalent in women of child bearing age group and for this reason commonly present in pregnancy. Uncorrected hypothyroidism have adverse effect on maternal and foetal well being. Women with hypothyroidism both overt and subclinical are at increased risk of pregnancy related complications such as spontaneous abortion ,pre-eclampsia, preterm labour ,low birth weight babies, preterm delivery and intra uterine growth restrictions.

Children born to untreated mothers have profound effect on future intellectual development.

Materials And Methods- This study was done at Pradumna Bal Memorial Hospital in Department of Obstetrics And Gynecology from a period of April 2016 to April 2017.

It was a retrospective study done in 1000 pregnant women attending antenatal clinic at their first visit . Complete blood count , blood group and rh typing ,urine examination. Serum TSH level are done .If TSH is deranged FT3 and FT4 were done.

Subclinical hypothyroidism- High Serum TSH with normal FT3 and FT4 level.

Overt hypothyroidism - High Serum TSH with FT3 and FT4 less than normal range.

Serum TSH cut off level 4.5
FT4- 7-1.8 ng/ml
FT3- 1.7-4.2 pg/ml

1. Prevalence of Hypothyroidism

Type of Disorder	No. of cases	%
1. Subclinical	76	7.6%
2. Clinical	32	3.2%
Total	108	10.8%

Result-

In the present study the prevalence of subclinical hypothyroidism and overt hypothyroidism 7.6% and 3.2% respectively.

DISCUSSION-

Prevalence of hypothyroidism during pregnancy has a wide geographical variation. Data from western countries indicates that overt hypothyroidism complicates upto .3 to .5% and the prevalence of subclinical hypothyroidism is estimated to be 2.5%. In India prevalence varies widely among various states .Hypothyroidism during pregnancy has an adverse effect on mother and child .Pregnancy has a profound physiological impact on thyroid gland and thyroid function. During pregnancy the thyroid gland increases in size by 10% in iodine sufficient countries and to a greater extent in iodine deficient countries. Production of thyroid hormones and iodine requirement both increases by approximately 50% during pregnancy as a part of physiology .In addition pregnancy is a stressful condition for the thyroid gland resulting hypothyroidism in women with limited thyroid reserve or iodine deficiency. Targeted case finding has been the preferred method due to its practicality ,cost effectiveness .A study done by Vaidya et al reported that by targeted thyroid screening testing of only the high risk group would miss about one third of pregnant women with overt and subclinical hypothyroidism .Further significant adverse effects on maternal and foetal outcome were seen emphasizing the importance of routine antenatal thyroid screening.

CONCLUSION

This study concludes that there is a high prevalence of hypothyroidism (10.8%) in pregnancy. Majority of these being subclinical hypothyroidism .further pan india studies are required to find the prevalence of hypothyroidism during pregnancy and whether universal screening should be recommended.

REFERENCES

- Ajmani Sangita, et al Prevalence of overt and subclinical thyroid dysfunction among pregnant women and its effect on maternal and fetal outcome. The journal of obstetrics and gynecology of india, 2014; 64(2): 105-110.
- Dhanwal DK, Prasad S, Agarwal AK, Dixit V, Banerjee AK, High prevalence of subclinical hypothyroidism during first trimester of pregnancy in north india. Indian J Endocrine metabolism 2013; 17: 281-4.
- Sapana C Shah et al Thyroid disorders in pregnancy-a comparative study. International journal of fundamental and applied life sciences, 2015; 5(1): 7-14
- Sahu MT, DAS V, Mittal S, Agarwal A, Sahu M. Overt and subclinical thyroid dysfunction among Indian pregnant women and its effect on maternal and fetal outcome. Archives of gynecology and obstetrics, 2010; 281(2): 215-220
- Tuija Mannisto, Marja Vaarasmaki, et al Thyroid Dysfunction and maternal morbidity. J Clin Endocrinology metab 2010; 95(3): 1084-1084