Assessment of Thyroid Function during the Three Trimesters of Pregnancy in Alexandria Region, Egypt.

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OBJECTIVES

Undetected and untreated thyroid disorders are associated with adverse maternal and fetal outcomes. There are limited data on the prevalence of newly diagnosed thyroid disease during pregnancy from Egypt. Therefore, this study was designed to evaluate the prevalence of thyroid dysfunction during the three trimesters of pregnancy. Pregnancy is associated with increased prevalence of thyroid dysfunction during the three trimesters of pregnancy. Undetected and untreated thyroid disorders are associated with adverse maternal and fetal outcomes. There might be a cause that might increase maternal and fetal complications so screening is important.

METHODS

The present cross-sectional study was conducted at antenatal clinic of El Chatby Maternity Hospital in Alexandria University. The total sample population comprised of 90 pregnant women divided into 30 women for each trimester compared with 30 non pregnant healthy women regarding thyroid function parameters and anti-TPO by using COBAS analyzer measured by the electrochemiluminescence immunomassay “ECLIA” employs monoclonal antibodies specifically directed against human TSH,FT4,FT3 and anti TPO.

RESULTS

120 ladies were enrolled for this study aged between 20-45years excluding ladies with previous endocrinal anomalies showed significant difference between pregnant and non-pregnant females regarding TSH and FT4 and no significant difference regarding FT3 and anti TPO in all trimesters.

CONCLUSIONS

1- In our study 21.6% of the studied subjects were having hypothyroidism; 88.42 % of them were pregnant
2- 7.5% of the studied subjects were having hyperthyroidism; 55.5 % of them were pregnant
3- The study showed no significant difference between age & thyroid parameter
4- The study showed significant difference between pregnant women and non pregnant regarding TSH & FT4
5- The study showed no significant difference between pregnant and non pregnant regarding FT3 but the mean FT3 showed decline in pregnancy
6- There was discrepancy between FT4 &TSH in pregnancy due to presence of stimulatory and inhibitory factors in pregnancy
7- However the increase in anti TPO titer in pregnancy was not significant in relation to non pregnant, it showed significant increase during 3rd trimester
8- 3rd trimester recorded most of thyroid abnormalities and this might increase risk of fetal anomalies