

## A correlative study of thyroid hormones, lipid profile and serum iron in anaemic pregnant women

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### Abstract

**Introduction:** Thyroid hormones are required for regular development as properly as regulating metabolism within the person. A reduced thyroid hormone adversely influences erythropoietic system causes anaemia. Our goal turned into to evaluate the courting among serum Iron, lipid profile, and thyroid hormone function in anaemic pregnant women.

**Aim:** The Aim and objective of the study was to compare the thyroid hormones with lipid profile and serum iron in anemic pregnant women.

**Materials & Methods:**

The study consisted of 150 subjects from OPD/IPD Amaltas Institute of Medical Sciences, Dewas, Madhya Pradesh, India. The study groups were divided into two groups. Group I—100 anaemic pregnant women; and Group II—50 non-anemic pregnant women. The serum samples were collected from each subject, and levels of different biochemical parameters were estimated.

**Result:** It had been noted. On comparing values in thyroid hormones, Lipid profile and serum Iron among two groups, a significant difference ( $p < 0.005$ ) was found between few of them.

**Conclusion:** Screening of serum Iron levels in the first trimester may be beneficial in avoiding pregnancy complications. Further, thyroid disorders are also present. As a result, early detection of these deficiencies may make it advantageous to begin administering dietary supplements to avoid unwanted pregnancy outcomes.

**KEYWORDS:** Thyroid hormone, serum iron levels, Lipid Profile, Anaemic pregnant women., Thyroid Malfunction.

### INTRODUCTION

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The physiological situation of pregnancy causes intricate hormonal and immunological alterations that alter the usual physiology of the thyroid. On the thyroid gland and thyroid function, it has a significant effect. Iron deficiencies are common in pregnant women, and they have negative consequences on thyroid metabolism. The interpretation of these abnormalities offers a difficulty to the treating doctor even though they are typically reversible postpartum. There is a high prevalence of hypothyroidism in expectant mothers. 2-5% of women of childbearing age experience maternal hypothyroidism, and it is linked to poor pregnancy outcomes. [1] Preterm birth, preeclampsia, foetal loss, placental abruptions, and diminished intellectual development in the offspring are all linked to it. [2] Based on logistic regression analysis, the chance of miscarriage increased by 15% for every 1 mIU/L increase in the TSH level. The connection between first-trimester TSH levels between 2.5 and 5.0 mIU/liter, spontaneous pregnancy loss, and preterm birth. First-trimester pregnancy outcomes in euthyroid, thyroid antibody-positive women have been linked to higher incidence of preterm birth and miscarriage. [3]

The healthy development of a baby's brain and nervous system depends on thyroid hormones. Baby's need for thyroid hormone throughout the first trimester, or the first three months of pregnancy, is supplied by the placenta. Fetal illness caused by hypothyroidism in either the mother or the baby typically includes a high incidence of mental impairment in humans.

## Department of Biochemistry

### List of publications

Faculty	Topic	Year	Journal	Issue Volume
Dr. Savita Rathore	"EVALUATION OF HYPERGLYCEMIA INDUCED OXIDATIVE STRESS IN TYPE-2 DIABETIC PATEINT."	2022	(International Journal of Scientific Research)	(Vol.-11, Issue-06, June-2022, Print ISSN No. 2277-8179)
	"CORRELATION OF OXIDATIVE STRESS AND DYSLIPIDEMIA IN TYPE-2 DIABETIC PATEINTS"	2022	(GLOBAL JOURNAL FOR RESEARCH ANALYSIS)	(VOL.-11, JUNE-2022, PRINT ISSN NO. 2277-8160)
	A Comparative Study of Serum Fucose, Hs C reactive Protein Levels & lipid Profile Oral Cancer, Leukoplakia and Oral Submucous Fibrosis	2021	International Journal of Health and Clinical reseaech,	2021;4(16):1-4
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Dr. Monika Mandrai	Assessment of Awareness about Keys of Safer Food among Local Food Venders and Cafeteria Staff in Tertiary Care Center in Pandemic; A Cross Sectional Study	2022	International Journal of Pharmaceutical and Clinical Research	2022; 14(6); 419-425
	Assessment of Hospitalized Patient with 2019 Novel Coronavirus- Infected Pneumonia Associated with Hypertension in Tertiary Care Hospital - A Cross Sectional Study	2022	International Journal of Pharmaceutical and Clinical Research	2022; 14(7); 631-638
	A Correlative Study of Thyroid Hormones with Serum Iron in Anaemic Pregnant Women	2020	International Journal of Medical Science and Innovative Research (IJMSIR)	Vo.-5, Issue-5, Oct. 2020, Page No. : 47-53
	Correlation of Vitamin B12 with Thyroid Hormones in Anemic pregnant Women	2020	International Journal of Medical and Biomedical Studies	Vol.-4, Issue- 9, Sep: 2020, Page No. 29-32
Ms. Nitu Sharma	Dilemma on Law Amendment. Journal of Forensic Medicine Science and Law	2022	Official Publication of Medicolegal Association of Maharashtra	(Print ISSN: 2277-1867 Online ISSN: 2277-8853) Accepted for Jan 2022 edition for publication.