

Thyroid disease in pregnancy

Thyroid disease is common in women of childbearing age. However, symptoms of thyroid disease, such as heat intolerance, constipation, fatigue, palpitations and weight gain resemble those of normal pregnancy.

thyroid hormone ranges for non-pregnant women are not useful in pregnancy.

So in maternal physiology there is :

- Increase in thyroid binding globulin.
- Increase in total T3 & T4.
- Free T3 & T4 unchanged .
- TSH often suppressed.
- Iodine deficiency due to Increase in GFR of kidney.

So that in pregnancy we depend on free T3 &T4 .

Hypothyroidism

Occur in 1% of pregnant female .

Commonest cause is iodine deficiency, but this is rarely seen in the developed world, where autoimmune Hashimoto's thyroiditis is more common.

Thyroid function tests should be performed serially in each trimester, or more often if dose adjustments are required.

Treatment :

Levothyroxine .

maternal thyroxine levels are most important in the first trimester of pregnancy, where suboptimal replacement therapy is associated with developmental delay and pregnancy loss. Otherwise hypothyroidism does not seem to influence pregnancy outcome or complications.

Hyperthyroidism

Occur in 1/1000 pregnancies.

The most common cause is graves disease (95%).which is an autoimmune disease so usually improves in 2nd &3^{dr} trimester.

Effect of thyrotoxicosis on pregnancy(complication)

- Maternal and fetal outcome usually good if disease is controlled . .
- Untreated or poorly controlled thyrotoxicosis is associated with risk of **miscarriage, IUGR ,and premature delivery ..**

Thyroid storm: With the stress of infection, labour, or operative delivery a 'thyroid storm' can occur in poorly controlled patients. This is a medical emergency, characterized by pyrexia, confusion, and cardiac failure.

Neonatal/ fetal thyrotoxicosis occurs in up to 10% of babies born to women with current or past history of Graves' disease (transplacental passage of thyroid receptor stimulating antibodies).

The signs &symptoms of thyrotoxicosis

- Weight loss.
- Tremor.
- Persistent tachycardia.
- Eye sign.

Treatment

- **Antithyroid drugs:** carbimazole and propylthiouracil (PTU) are the two drugs used.. Both drugs cross the placenta and may cause fetal hypothyroidism in high doses. PTU is preferred for new cases as there is less transfer across the placenta and into breastmilk.
 - **β -Blockers** may safely be used for symptom relief in new cases for a short period of time .
 - **Surgery:** thyroidectomy can be safely done in pregnancy. Indications : include dysphagia, stridor, suspected carcinoma, and allergies to both antithyroid drugs .
 - **Radioactive iodine** is contraindicated in pregnancy and breast-feeding.
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