

Thyroid disease in pregnancy

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Ojective

KI,4,5 •

SI,3,4,7, 17, 18, 21, 23, 24 •

AB: 1, 3, 4, 5 •

Ojective

- ***Physiological changes in pregnancy .**
- ***Hypothyroidism (clinical features , diagnosis ,treatment during pregnancy)**
- ***Hyperthyroidism(clinical features , diagnosis ,treatment during pregnancy)**
- ***The effect of uncontrolled disease**

* Physiological changes in pregnancy .

- Maternal TSH production may be suppressed during the first-trimester of pregnancy (by effect of hCG) .
- Maternal iodine requirements increase .
- Maternal iodine excretion in the urine is increased .
- marked increase in thyroid-binding globulin & in the bound forms of T_4 and tri-iodothyronine .
- The active forms of these hormones are altered less .

(Hyperthyroidism)

- - **Incidence 1 in 500 pregnancies .**
- - **Graves' disease (is most common cause)**
- - **Other causes .**
- - toxic nodule .
- - thyroiditis .
- - carcinoma .
- - Molar pregnancy .

Clinical features :

- - Clinical diagnosis in pregnancy is difficult .
- - A resting pulse rate > 100 bpm .
- - failure to gain weight .
- - heat intolerance .
- - no change in pulse rate with avulsava maneuver .
- - Hyperplastic goitre .
- - Fetal tachycardia .
- - Exophthalmos .
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Investigations :

- **Initial screening tests include**
- - a serum free T4 .
- - TSH assays .
- - Free T3 level for diagnosis of T3 – thyrotoxicosis .
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The effect of uncontrolled disease :

- 1. Thyroid storm .
- 2. Heart failure
- 3. Maternal hypertension .
- 4. Premature labour .
- 5. Growth restriction & still birth .

Therapy

- * **Medical treatment**
- - Propylthiouracil (PTU)
- - Carbimazole .
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- * **Surgical treatment :**
- - Large goitre .
- - Fail of medical disease .
- - Done at 2nd – trimester .
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- * **Radio active iodine treatment**
- - Is contra indicated during pregnancy .

Fetal hyperthyroidism

- When the maternal thyrotropin receptor stimulating antibodies cross the placenta .
- Cause fetal or neonatal thyrotoxicosis
- - Clinical Features :
- - Fetal tachycardia > 160 bpm .
- - Intra – uterine growth restriction .
- - Hydrops fetalis .
- - Fetal goitre .
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- If not treated :intrauterine death .
- Premature labour
- Intellectual impairment .

Hypothyroidism

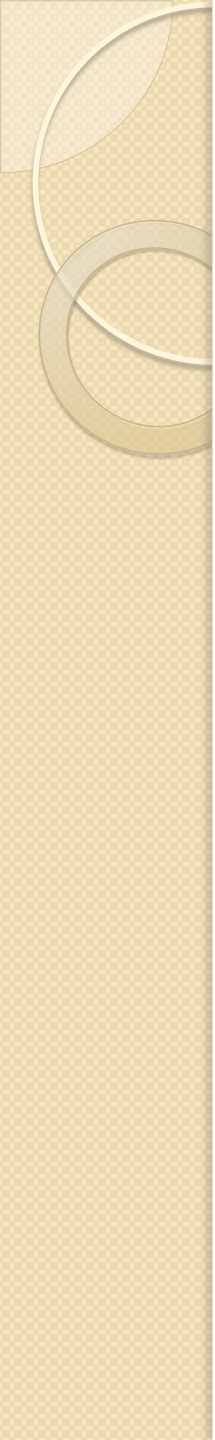
- - **Incidence 1% of pregnant women .**
- - **Cause :**
- - Autoimmune Hashimoto's thyroiditis .
- - Idiopathic myxoedema .
- - Following treatment of hyperthyroidism .
- -
- - **Risks :**
- - Preterm labour .
- - Preeclampsia .
- - Premature separation of placenta .
- - low-birth weight .
- - stillbirth .
- - low IQ baby .

Clinical Features

- - tiredness .
- - constipation .
- - anaemia .
- - weight gain .
- - carpal – tunnel syndrome .
- Investigation : Thyroid functions tests :
 - - elevated TSH .
 - - low T_3 , T_4 (free)

Therapy

- - Levothyroxine
 - - Is titrated against biochemical measures .
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- Fetal hypothyroidism
 - - Incidence 1 in 4000 births .
 - - Auto antibodies cross the placenta .
 - - TSH receptor blocking antibodies .



Thank
you

