

HYPOTHYROIDISM

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Hypothyroidism - underactive thyroid - is the commonest disease of the thyroid gland, with reduced production of thyroid hormones and a reduction in body metabolism. It affects about 1 - 2% of the population, and is much more common in women than men (5-8 times more common) - especially in young women. Subclinical hypothyroidism (a milder form of hypothyroidism) affects 4-10% of the population.

Causes of Hypothyroidism:

The commonest cause of Hypothyroidism is a condition called "Hashimoto Thyroiditis", an autoimmune condition which has genetic (familial) predisposition. It is characterized by a chronic, painless inflammation of the thyroid gland, which leads to atrophy of the gland, and reduced production of thyroid hormones. Other causes of hypothyroidism include: iodine deficiency, thyroid surgery with removal of the thyroid gland (thyroidectomy), previous treatment with Radioiodine, or previous head - or neck irradiation (for example in patients with Lymphoma). Some medication - for example some cardiology or psychiatric medication - may also cause hypothyroidism.

Patients with Thalassemia have increased risk of hypothyroidism - probably due to iron deposition - so it is advisable that they have Thyroid function checks.

Symptoms of Hypothyroidism:

Symptoms include:

- Weakness / easy tiredness
- Lethargy
- Weight gain or inability to lose weight
- Cold intolerance
- Dry skin, hair loss
- Lack of concentration and other cognitive disturbances
- Mood swings (depression)
- In women it can cause menstrual irregularities and fertility problems

Diagnosis:

The diagnosis of hypothyroidism is done with a thyroid function test - blood test to check the thyroid hormones: T4 (Thyroxin) and T3 (Triiodothyronin), as well as TSH (Thyroid Stimulating Hormone), which is produced by another gland in our body - the pituitary gland - and which controls the thyroid function and the production of thyroid hormones. It is also very useful to perform an additional blood test, for thyroid antibodies (the TPO antibodies) which indicate a genetic predisposition / Hashimoto Thyroiditis.

A thyroid ultrasound may show irregular thyroid parenchyma - another characteristic feature of Hashimoto thyroiditis - and eventually any thyroid nodules that may not be palpable.

Treatment:

The treatment of Hypothyroidism is synthetic Thyroxin.

Thyroxin is taken once a day, first thing in the morning, with an empty stomach, at least half an hour prior to taking any food or any other medication.

The starting dose of Thyroxin depends on the initial Thyroid function test values and the patient's weight. Especially in older patients and patients with heart problems we tend to start with lower doses, to avoid causing angina. Subsequently, the dose has to be titrated individually, according to blood tests, which are done the earliest 6 - 8 weeks after the initiation of thyroxin or the change in dose. Once the patients are stable on a specific dose, the blood tests are performed every 6 - 12 months.

Blood tests here include TSH and T4 - the dose titration is done mainly according to TSH.

Patients on Thyroxin can expect improvement of their symptoms within 2 weeks, but it may take up to 6 months for full resolution of symptoms in people with severe hypothyroidism.

Hypothyroidism and pregnancy:

Hypothyroidism is common in young women, therefore there are a lot of women with hypothyroidism who will go through pregnancy.

In pregnancy there is an increased demand of thyroxin. About 75- 85% of women will need an increase of their usual dose of thyroxin- sometimes by up to 25 – 50%.

On top of this, we keep the TSH in more tight values. A close follow up by the Endocrinologist is therefore necessary.

Immediately after delivery, the patient has to go back to her usual (pre - pregnancy) thyroxin dose.

Conclusion:

Hypothyroidism is a common condition, which is treatable with Thyroxin. The dose of Thyroxin is different for every patient, and has to be arranged individually according to blood test results, and taking in consideration specific circumstances. It is therefore necessary that the patient is followed up by an Endocrinologist. Women with hypothyroidism can have normal pregnancy and delivery as long as their Thyroxin dose is well controlled.

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