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المحاضرة 18 – المرحلة الثانية الطب الباطني- تقنيات التخدير

Thyroid diseases

Hyperthyroidism

What is hyperthyroidism •

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Thyroxine is a body chemical (hormone) made by your thyroid gland. It is carried around your body in your bloodstream. It helps to keep your body's functions (your metabolism) working at the correct pace. Many cells and tissues in your body need thyroxine to keep them going correctly

Hyperthyroidism means an overactive thyroid gland. When your thyroid gland is overactive it makes too much thyroxine. The extra thyroxine causes many of your body's functions to speed up. In contrast, if you have hypothyroidism, you make too little thyroxine; this causes many of the body's functions to slow down

What are the symptoms of hyperthyroidism •

- Being restless, nervous, emotional, irritable, sleeping poorly and being 'always on the go'
- Tremor of your hands
- Losing weight despite an increased appetite
- (The sensation of having a 'thumping heart' (palpitations)
- Sweating, a dislike of heat and an increased thirst
- Runny stools (diarrhoea) or needing to go to the toilet to pass stools more often than normal
- Shortness of breath
- Skin problems such as hair thinning and itch
- Menstrual changes - your periods may become very light or infrequent
- Tiredness and muscle weakness may be a feature
- A swelling of your thyroid gland (a goitre) in the neck may occur

What are the causes of hyperthyroidism •

There are various causes of having an overactive thyroid gland •
:(hyperthyroidism). They include the following

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Graves' disease •

This is the most common cause. It can occur at any age but is most •
common in women aged 20-50 years. It can affect anyone but there is
often a family history of the condition. There may also be family members
with other autoimmune diseases (for example, diabetes, rheumatoid
. (arthritis and myasthenia gravis

Graves' disease is also an autoimmune disease. The immune system •
normally makes tiny proteins (antibodies) which travel in your bloodstream
to attack bacteria, viruses and other germs. In autoimmune diseases, the
immune system makes antibodies against tissues of your body. If you have
Graves' disease, you make antibodies that attach to your thyroid gland.
These stimulate your thyroid gland to make lots of thyroxine. It is thought
that something triggers your immune system to make these antibodies.
The trigger is not known

In Graves' disease the thyroid gland usually enlarges, which causes a • swelling (goiter) in the neck. The eyes are also affected in about half of cases. If they are affected, your eyes are pushed forwards and look more prominent (proptosis). This can cause discomfort and watering of your eyes. Problems with eye muscles may also occur and lead to double vision. It is not clear why eye symptoms occur in some people who have Graves' disease. They may be due to the antibodies affecting the tissues around your eye

Thyroid nodules •

This is a less common cause of hyperthyroidism. Thyroid nodules are • lumps which can develop in your thyroid gland. It is not clear why they develop. They are usually non-cancerous (benign) but contain .abnormal thyroid tissue

The abnormal thyroid tissue in your thyroid nodules does not respond • to the normal controlling system which ensures that you make just the right amount of thyroxine. Therefore, if you have a thyroid .nodule, you may make too much thyroxine

Sometimes only one nodule forms. This is called a toxic solitary • adenoma. This most commonly occurs in people aged between 30 .and 50 years

The thyroid may become generally lumpy or nodular. This most • commonly occurs in older people and is called a toxic multinodular goiter

other causes •

There are several other rare causes of hyperthyroidism. For example, •
some people who take the *medicines amiodarone and lithium*
develop hyperthyroidism. There are various other rare conditions
which result in excess thyroxine being made

Diagnosis •

Thyroxine (T4). A high level of T4 confirms hyperthyroidism •

HYPOTHYROIDISM

- Hypothyroidism (underactive thyroid) is a condition in which your thyroid gland doesn't produce enough of certain important hormones

- Women, especially those older than age 60, are more likely to have hypothyroidism. Hypothyroidism upsets the normal balance of chemical reactions in your body. It seldom causes symptoms in the early stages, but over time, untreated hypothyroidism can cause a number of health problems, such as obesity, joint pain, infertility and heart disease

Symptoms •

Fatigue •

Increased sensitivity to cold •

Constipation •

Dry skin •

Weight gain •

Puffy face •

Hoarseness •

Muscle weakness •

Elevated blood cholesterol level •

Muscle aches, tenderness and stiffness •

Pain, stiffness or swelling in your joints •

Heavier than normal or irregular menstrual periods •

Thinning hair •

Slowed heart rate •

Depression •

Impaired memory •

Advanced hypothyroidism, known as myxedema, is rare, but when it occurs it can be life-threatening. Signs and symptoms include low blood pressure, decreased breathing, decreased body temperature, unresponsiveness and even coma. In extreme cases, myxedema can be fatal

Causes of hypothyroidism

- Autoimmune disease. People who develop a particular inflammatory disorder known as Hashimoto's thyroiditis have the most common cause of hypothyroidism
- Treatment for hyperthyroidism
 - .Thyroid surgery.
 - .Radiation therapy
- Medications. A number of medications can contribute to hypothyroidism. One such medication is lithium, which is used to treat certain psychiatric disorders.
- Less often, hypothyroidism may result from one of the following

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Pituitary disorder. A relatively rare cause of hypothyroidism is the failure of the pituitary gland to produce enough thyroid-stimulating hormone (TSH) — usually because of a benign tumor of the pituitary gland

Pregnancy. Some women develop hypothyroidism during or after pregnancy (postpartum hypothyroidism), often because they produce antibodies to their own thyroid gland. Left untreated, hypothyroidism increases the risk of miscarriage, premature delivery and preeclampsia — a condition that causes a significant rise in a woman's blood pressure during the last three months of pregnancy. It can also seriously affect the developing fetus

Thank you