PHARMACOTHERAPY OF HYPERTHYROIDISM

It is a therapy by thyrostatics (antithyroid drugs) drugs that inhibit the production of thyroid hormones.

🔍 Therapy ♂️ Female

About Pharmacotherapy of hyperthyroidism

Antithyroid drugs

Thyrostatics (antithyroid drugs) are drugs that inhibit the production of thyroid hormones, such as carbimazole and methimazole, and propylthiouracil. Thyrostatics are believed to work by inhibiting the iodination of thyroglobulin by thyroperoxidase, and, thus, the formation of tetra-iodothyronine (T4). Propylthiouracil also works outside the thyroid gland, preventing conversion of (mostly inactive) T4 to the active form T3. Because thyroid tissue usually contains a substantial reserve of thyroid hormone, thyrostatics can take weeks to become effective, and the dose often needs to be carefully titrated over a period of months, with regular doctor visits and blood tests to monitor results. A very high dose is often needed early in treatment, but, if too high a dose is used persistently, patients can develop symptoms of hypothyroidism.

Beta-blockers

Many of the common symptoms of hyperthyroidism such as palpitations, trembling, and anxiety are mediated by increases in beta adrenergic receptors on cell surfaces. Beta blockers, typically used to treat high blood pressure, are a class of drugs that offset this effect, reducing rapid pulse associated with the sensation of palpitations, and decreasing tremor and anxiety. Thus, a patient suffering from hyperthyroidism can often obtain immediate temporary relief until the hyperthyroidism can be characterized with the Radioiodine test (noted below in "Other therapies" section) and more permanent treatment take place. Note that these drugs do not treat hyperthyroidism or any of its long-term effects if left untreated, but, rather, they treat or reduce only symptoms of the condition. Some minimal effect on thyroid hormone production however also comes with Propranolol - which has two roles in the treatment of hyperthyroidism, determined by the different isomers of propranolol. L-propranolol causes beta-blockade, thus treating the symptoms associated with hyperthyroidism such as tremor, palpitations, anxiety, and heat intolerance. D-propranolol inhibits thyroxine deiodinase, thereby blocking the conversion of T4 to T3, providing some though minimal therapeutic effect. Other beta blockers are used to treat only the symptoms associated with hyperthyroidism.

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🔍 Diagnoses

Hyperthyroidism
Condition that occurs due to excessive production of thyroid hormone by the thyroid gland.
Learn more at: www.Fertilitypedia.org/therapy/diag/hyperthyroidism
Thyroid disorders
A medical condition impairing the function of the thyroid.
Learn more at: www.fertilypedia.org/therapy/diag/thyroid-disorders