



# Changes in the cardiovascular system in patients with thyrotoxicosis.

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**ABSTRACT**

The article shows changes in coronary vessels in patients with thyrotoxicosis and the results of their observation.

In recent years, the number of patients treated in the city of Bukhara and its hospitals has been increasing. 40 patients with CKD and its complications were selected for the cardiology department of the hospital, and in 30 of them, about 70% of the causes of the disease are mainly estimated by the activity of the thyroid gland.

The causes of the underlying disease in this group of patients will be determined by taking samples of the thyroid gland. An increase in the hormone thyroxine or a condition associated with it leads to an acceleration of cardiac activity.

**Keywords:**

Thyrotoxicosis, thyroid gland, thyroxine

The hormone thyroxine, which is produced by the thyroid gland, causes a very active physiological activity and an increase in metabolic processes in all organs and tissues. The diagnosis of subclinical states of the functional activity of the thyroid gland (TG) has become possible due to the development of laboratory research methods. To determine the functional disorders of the thyroid gland, the level of thyroid-stimulating hormone (TSH) is important [1]. Modern highly sensitive third-generation methods allow to determine the concentration of TSH.

**Heart rhythm disturbances in subclinical thyrotoxicosis**

Manifest and subclinical thyrotoxicosis, as a rule, are accompanied by atrial fibrillation and atrial extrasystole [5, 24, 25]. Thyroid hormones alter the heart rate by increasing diastolic depolarization of the sinus node and facilitating conduction of excitation through the atrioventricular node. In addition, they affect atrial myocytes, shortening their refractory period. This causes electrical

heterogeneity and the possibility of recirculation of excitation and atrial fibrillation. Under the conditions of reduction of the refractoriness period of the atrioventricular node and increase of its sensitivity to adrenergic stimulation, the regulation of the rhythm turns out to be resistant. Demidova T.Yu., Drozdova I.N., Potekhin N.P., Orlov F.A. SUBCLINICAL THYROTOXICOSIS AND THE CARDIOVASCULAR SYSTEM 18 Journal for Continuing Medical Education of Physicians POLICY REVIEWS on Digitalis Treatment. Ventricular arrhythmias are rare and usually occur in patients with cardiac pathology [26]. Several large studies have been devoted to assessing the risk of developing atrial fibrillation in subclinical thyrotoxicosis. So, J. Auer et al. examined 23,000 people aged 65–70 years. The incidence of atrial fibrillation in subclinical thyrotoxicosis was 13%, in overt thyrotoxicosis it was 14%, and in euthyroidism it was 2% [27, 28]. In subsequent studies (n = 5860, age 65 years and older), atrial fibrillation was diagnosed in 5–9% of patients with

subclinical thyrotoxicosis versus 4–7% of patients in the control group. The prevalence of atrial fibrillation was the same both at TSH levels of 0.1–0.4 mU /L and at TSH levels.

**Material and method:** In 30 out of 40 patients of the selected group, in order to detect cardiac arrhythmias, first of all, the amount of TSH in the deposit was determined, along with it, the chalcone gland UT and ECG studies.

**Conclusion.** With the development of the disease of the main group, the acceleration of metabolic processes leads to changes in the conduction system of the heart and, ultimately, to the formation of arrhythmogenic zones in the heart.

### Literature

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