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PECULIARITIES OF THE FUNCTIONAL STATE OF THE SALIVARY GLANDS IN THYROID PATHOLOGY

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ABOUT ARTICLE

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Abstract: The problem of the relationship between the thyroid and salivary glands is of interest since it is known that the functional state of the thyroid gland has a pronounced effect on the state of the salivary glands and other tissues of the dental system.

INTRODUCTION

The thyroid gland is one of the most important organs of the endocrine system, responsible for the regulation of metabolism and metabolism in the human body [2]. It produces hormones that are involved in the regulation of body temperature, heart rate, pressure, and also affect the growth and development of the body. With the pathology of the thyroid gland, a violation of its functioning can occur, which can lead to various diseases [1-6]. One of these diseases is hypothyroidism - a condition in which the thyroid gland does not produce enough hormones [4]. Hypothyroidism can have a negative impact on the functional state of the salivary glands. In particular, in patients with hypothyroidism, there is a decrease in the volume of saliva produced and a change in its chemical composition [7]. This can lead to various oral health problems such as caries, gingivitis, periodontitis, etc. In addition, patients with hypothyroidism may experience a decrease in the rate of elimination of radioisotopes from the salivary glands. This can lead to an increase in the radiation dose during a radioisotope study of the salivary glands [9]. In this regard, in case of thyroid pathology, it is recommended to conduct a regular examination of the functional state of the salivary glands [8]. For this, various methods can be used, such as measuring the volume of saliva produced, determining its chemical composition, conducting a radioisotope study, etc. It is also important to pay attention to the prevention of oral diseases in patients with hypothyroidism [10,11]. To do this, it is recommended to monitor oral hygiene, eat right, consume

enough vitamins and minerals, and visit the dentist regularly . Thus , the functional state of the salivary glands is an important aspect of health in thyroid pathology. Regular examination and prevention of oral diseases can help maintain the health and quality of life of patients.

PURPOSE OF THE STUDY

The purpose of the study is to study the features of the functional state of the salivary glands in patients with thyroid pathology, as well as to develop recommendations for the prevention and treatment of oral diseases in this category of patients. Detection of the content of thyroid hormones (T 4 - free and TSH) in saliva and oral fluid (RJ) in case of thyroid disease in comparison with the level in blood serum and, on this basis, determine the functional state of the salivary glands.

MATERIALS AND METHODS

The study used data from medical records of patients with a diagnosis of thyroid pathology, who were examined at a dental clinic. A total of 100 patients aged 18 to 60 years were studied. The evaluation of the functional state of the salivary glands was carried out using the method of secretometry . Statistical methods were used to analyze the obtained data. The study of the content of thyroid hormones in the blood serum and gastric cancer was performed in 64 patients with hyperfunction and hypofunction of the thyroid gland. Blood for the determination of hormones was taken in the morning from the cubital vein on an empty stomach. Previously, saliva was collected for b min by spitting into a graduated test tube so that daily quantitative indicators of saliva secreted could be analyzed.

RESULTS

It has been established that in patients with thyroid pathology, dysfunction of the salivary glands is often observed. In 60% of cases, a decrease in the volume of saliva secreted was detected, which can lead to various diseases of the oral cavity, such as caries, periodontitis, and others. It was also found that in the treatment of thyroid diseases, it is necessary to take into account the possible effect of drugs on the function of the salivary glands. The content of thyroid hormones in saliva and blood serum indicates that with unstimulated saliva, gastric cancer is secreted, containing thyroid hormones TSH and thyroxine T 4 at concentrations significantly lower than in blood serum. The results of our studies have shown that thyroid hormones are contained in the composition of the thyroid gland both in patients with various forms of thyroid damage and in a healthy person . In our observations, in patients with hyperthyroidism, an increase in the concentration of T 4 and TSH in the blood was observed, and a slight increase in their content was revealed in the RG. Such ratios of hormone concentrations can be

considered as indirect evidence of their transport (recretion) into saliva from the blood, and the possibility of synthesis of thyroid hormones by the salivary glands can also be assumed.

CONCLUSIONS

The study showed that patients with thyroid pathology need special attention to the state of the oral cavity and the function of the salivary glands. For the prevention and treatment of oral diseases in this category of patients, it is necessary to regularly examine and monitor the functional state of the salivary glands, as well as take into account the possible effect of treatment on this function. The data of the conducted studies showed that the salivary glands are involved in ensuring the hormonal homeostasis of the body and are quite informative. The salivary glands and RZh contain thyroid hormones, and this fact provides additional information about the functional state of the studied phenomena. As a result of a comprehensive examination of the state of the salivary glands in patients with thyroid diseases living in an ecologically unfavorable region, it was revealed: a significant decrease in the functional activity of the salivary glands (complaints of dry mouth, periodic or constant enlargement of the glands, a decrease in the amount of saliva, an increase in the viscosity of the secretion) ; changes in the cytological composition of saliva; the echographic picture characterizes the severity of the chronic inflammatory-dystrophic process in the tissues of the gland.

Such changes indicate that thyroid diseases and the ecological atmosphere are pathogenetic factors for violations of reactive-dystrophic changes in the salivary glands, i.e., this category of patients should be attributed to the group of increased risk of developing chronic sial o- and sialozadenitov a, given the data of the conducted hygiene index, and diseases of the oral mucosa and teeth.

Chronic sialoadenitis and sialoadenosis , which develops against the background of thyroid pathology, leads to changes in the chemical composition of mixed saliva and contributes to the development of diseases of the oral mucosa and teeth.

Patients with thyroid diseases should be registered at the dispensary and in the dental clinic, periodically undergo an examination by a surgeon and therapist

dentist. At the same time, it is necessary to carefully pay attention to the complaints of patients, conduct an objective examination of the glands, identify violations of the amount of saliva from the ducts, its quality, examine the state of regional lymph nodes, the state of the oral mucosa and teeth, and if changes are detected, prescribe appropriate treatment.

It is necessary to control the ultrasound of the salivary glands together with the thyroid gland at least once a year.

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