

# Clinical Case of Surgical Treatment of Neck and Retrosternal Goiter.

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#### **ABSTRACT**

The article presents a clinical case of neck and retrosternal goiter. We describe the clinical features and diagnosis of cervical-retrosternal goiter when intrathoracic goiter location cannot be determined by palpation.

Keywords: retrosternal goiter, thyreoscintigraphy, surgical treatment.

## INTRODUCTION

Retrosternal goiter falls below the jugular notch of the sternum. The degree of ptosis can be different, but the upper pole of the crop is generally available to palpation. Retrosternal goiter occurs as a result of thyroptosis, gradual lowering of thyroid gland in the chest.

The main source of retrosternal goiter is low thyroid gland location. Emerging in the lower pole of this gland nodes gradually during growth may be omitted behind the breastbone and collarbone. The resistance of the powerful muscles of the front of the neck (especially in people with a short neck) inhibits the growth of the crop in front, and the movement assembly swallowing its own weight contribute to the growth it toward least resistance towards the mediastinal tissue is extremely pliable.

Retrosternal goiter is not among the rare diseases. The frequency of chest goiters among goiters usual localization varies widely - from 0.2% to 50%, with an average of 3-6%. This diversity is explained by statistics, above all, the lack of a clear definition of "retrosternal goiter," because there is no unanimous opinion, what is the degree of lowering of the thyroid gland should be referred to the retrosternal localization.

According to Petrovsky, approximately 12-20% of all goiters in varying degrees fall behind the breastbone.

According to our data neck and retrosternal goiter found in 12.4% of patients operated on for thyroid cancer, male to female ratio was 1: 11.5 (8% and 92%). Neck goiter is prevalent in the age of 50, while more than half of patients with neck and retrosternal goiter were older than 50 years, which coincides with the majority of domestic and foreign publications. Neck and retrosternal goiter is most common in women over 50 years brachymorphic build, with a relatively short neck and a wide upper thoracic aperture, living in regions of Yakutia, endemic goiter.

The clinical picture depends on the size of the crop and its relation to the surrounding organs. Diagnosis of intrathoracic goiter is very difficult. He usually detected incidentally on chest radiography and diagnosed as a tumor. In the diagnosis of great importance is attached to X-rays and computer and magnetic resonance imaging, contrast studies of the esophagus, tireostsintigrafii.

## MATERIALS AND METHODS

Patient M. born in 1944 living in a rural area, addressed to the endocrinologist of the clinical advisory department of the Republican Hospital №1 - National Center for Medicine, HM of Sakha (Yakutia) with complaints of air hunger and body position changes, discomfort sensations in the neck, sweating. The anamnesis showed that

she had been sufferingfrom multinodular goiter for 5 years, in the last year the increase in thyroid cancer was noted. Two years ago she was examined in the endocrinology clinic, after diagnosed as multinodular goiter with subclinical hyperthyroidism. She took thyrosol scheme, since she didn't address to medical care. The patient was not burdened with thyroid disease.

The patient in the ECC underwent thyreoscintigraphy. On the tireoscintigram enlargement of the thyroid gland on the rightlobe was marked. The size of the right lobe is 7.3 x 4.9 cm, the left lobe is 4.1 x 2.2 cm. Location of the thyroid gland is normal. The contours of both lobes are rough, fuzzy. In bothlobes increased accumulation of the radiopharmpreparation as "warm" sites are marked.

The patient was routinely hospitalized in the surgical department N#2 of the Clinical Center RH№1-NCM. While examining in RUC and thehospital №2 the enlarged thyroid gland was estimated by O.A.Nikolaev as a 2nd degree. A few days after admission the patient underwent subtotal resection of the thyroid glandperformed under endotracheal anesthesia. From the operation report of the patient M.: typical Kocher incision on the neck. Divorced straight neck muscles. The thyroid gland is emphasized. During the investigating it was found that the right lobe sharply increased in size 8.0 x 4.0 x 3.0 cm. resulting to the formation of a tumor diameter of 4.5 cm. In whitish capsule adenomatous and colloid nature.Isthmus 4.0 x 4.5 x 1.5 cm. The depth of the cut in the whitish portion is measured 1.5 x 0.7 cm. Because of the bigger size of the tumorof the right lobe the trachea is squeezed to the left, the right lobe extends retrotracheally. The lower pole moves to the retrosternal space (Fig. 1). Both lobestightly adjoin the trachea. The left lobe with dimensions 4.0 x 3.5 x 1.0 cm. contains a calcification of 0.7 cm.

During the operation the rapid biopsy was done. Cytology detected colloidal goiter in the left lobe, mixed adenomas on the background of cystic-colloid goiter the right lobe. When frozen section in the left lobe revealed macrofollicular colloid struma with focal cystic fibrosis in the right macrofollicular colloid struma with focal adenomatosis, fibrosis with lymphoid infiltration.

The final morphological diagnosis: macrofollicular colloid goiter with cystic degeneration, focal fibrosis.

## RESULTS

The presented case is interesting because during the preoperative examination on the neck with the help of palpation we determined not only by the upper pole of the right lobe, and "lower" pole of the right lobe above the jugular notch, as acervical narrow portion of its tissue connected the chest part of the thyroid gland with the neck site. This area was so narrow that only many years of experience of the operating surgeon didn't allow to reserve a part of the right lobe of the sternum. Just when thyreoscintigraphy retrosternal site does not accumulate radioactive iodine as a result of pronounced degenerative changes that did not give a full picture of the size of the crop. In this connection the necessity of radiological diagnostic methods, allowing to evaluate objectively the degree of magnification and location of the thyroid gland, as well as the degree of narrowing of the lumen of the trachea.

#### Literature

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Fig. 1 macropreparations right lobe of the thyroid gland isthmus and retrosternal part.

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