

## Computer Tomography

Full name

Date of birth

Sex

Name of service Computer tomography of rib cage with bolus contrasting 100 ml

Research number 050-001-0011588 from 22.01.2018

Dose (mSv) 2,8

The research of thoracic cavity organs is done in spiral mode by standard program with intravenous bolus contrasting and is supplemented by a study in high resolution mode.

On the series MSCT left lung is reduced in volume. There is determined atelectasis of the S6 segment of the lower lobe due to heterogeneous, multifocal formations with fuzzy uneven contours, with approximate size axially 7,0x8,5x11,0cm (extends to the S8/9 basal segments) sitting on the B6 segmental bronchus with total obturation of the last one. Lumens of the left lower lobe and lower segmental bronchi are narrowed. In the surrounding pulmonary tissue are determined multiple foci up to 1,5 cm, modular thickening of perilymphic spaces and reduction of pneumatization by the type of "frosted glass".

The formation has an average density +50HU, after contrasting accumulates a contrast substance up to +75HU. The formation with medial contour muff-shaped envelops the branches of the left lower pulmonary artery and veins narrowing them due to invasion, it also adjoins the aorta and grows up to the mediastinal, interlobar and costal pleura.

On the background of this in both lungs, thin and uneven intralobular thickenings of perilymphatic spaces are determined (reticular pattern) with the formation mainly in the apical zones and along the periphery of the cysts in the form of "".

In both lungs expressed pleurodiaphragmal and pleuropulmonary fibrous strands are defined.

In the S4/5 segment of the middle lobe, are determined calcinates up to 0,5cm with surrounding fibrous changes. In the right lung and in the upper lobe of the left lung are determined foci up to 0,8cm (in the S6 segment of the right lung), probably of a fibrous nature – require dynamic observation.

The pleural leaves are thickened in places. In the tops of both lungs there are pleuroapical adhesions.

Tracheal lumen of the main right lobe and segmental bronchi and bronchi of the upper lobe on the left is free.

Free fluid in the pleural cavities and in the pericardial cavity is not present.

The mediastinum is located centrally. Multiple enlarged up to 2,4x1,8cm right-sided supraclavicular (1), up to 2,6x1,7cm upper right paratracheal (2R), up to 2,7x1,8cm lower right paratracheal (4L), up to 2,2x1,7cm subaortic (5), up to 2,0x1,9cm paraortal (6) lymph nodes and conglomerates of the lower right-hand paratracheal (4R) lymph nodes with the size of 3,0x4,7cm and bifurcation (7) lymph nodes with the size of 2,8x4,5cm. Left-sided bronchopulmonary (10L) lymph nodes are involved in the process.

In the axillary regions there are unchanged lymph nodes on a short axis on the right up to 0,5cm, on the left up to 0,7cm.

Heart cameras are of normal size. After contrasting the thoracic part of the aorta, pulmonary trunk and its branches are examined. Aorta is not enlarged, ascending aorta-3,2cm, arc-2,6cm, descending aorta-2,6cm, in the walls parietal calcified atherosclerotic plaques are defined. Pulmonary trunk is up to 27mm, right pulmonary trunk is up to 25mm, the left one is up to 26mm.

The diaphragm is located as usual, its contours are even and clear.

In the right lobe of the thyroid gland the hypodense focus is determined up to 0,6x0,6cm, probably colloid cyst. In case of clinical necessity consultation of endocrinologist is recommended.

Fracture of posterior segments 6,7 of ribs is revealed, probably of traumatic character, however to eliminate the secondary nature osteoscintigraphy is recommended. There are expressed degenerative dystrophic changes of the spine.

P.S. In the covered zones of scanning in the upper floors of the abdominal cavity in the head and body of the pancreas microcystic multi-chamber formations are determined up to 1,4x1,5cm and up to 3,3x2,3cm, Wirsung duct is dilated. Additional MRI examination is recommended.

Conclusion: CT picture of central formation (probably bronchogenic carcinoma? - to confirm, bronchoscopy with biopsy is necessary) of the left lung with atelectasis of the S6 segment and with the spread to basal segments of the left lung, expressed mediastinal lymphadenopathy, with the left pulmonary artery and vein, mediastinal, inter-sectoral and costal pleura invasion; chronic fibrotic changes of the lungs according to the type of pulmonary fibrosis; foci of the lungs requiring dynamic observation according to the criteria of Fleischner after 3-6 months; fractures of posterior segments 6,7 of ribs on the right.

Doctor, M.G. Grigoryan

This conclusion is not a diagnosis and requires the interpretation of the attending physician.