



THE POSSIBILITY OF USING PHYSICAL REHABILITATION IN PATIENTS WITH PNEUMONIA

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Annatation: the article is based on instructions for reducing and eliminating the process of complicated fibrosis and scars in the respiratory organs (lung tissue), breathing restoration, physional gymnastics, physiotherapy, intensive massage techniques for asymmetric zones.

Key words: dynamic breathing exercises, special breathing exercises, standardized strength exercises, draining breathing exercises.

Breathing exercises (dynamic, static and special) in order to improve external respiratory function, strengthen respiratory muscles, prevent lung complications (congestion, atelectasis, pleural adhesions, pleurocardial adhesions, etc.), as well as to reduce physical load after physical exertion and physical training. is used

Dynamic breathing exercises - breathing is performed with the help of breathing muscles, with the help of hand, leg and body movements.

- Physiological breathing exercises.
- Paradoxical breathing exercises according to Strelnikova - given to increase ventilation and drainage of the lungs, joint movements with arms and legs, focusing on breathing.

Special breathing exercises - static breathing exercises - exercises performed with deep, rhythmic breathing without body **movements**. This group of exercises includes exercises that change the type of breathing:

- chest breathing exercises
- diaphragmatic or abdominal breathing exercises
- full or mixed breathing exercises
- local or local breathing exercises

The most physiological is a full breath, in which during inhalation the chest fills sequentially due to the descent of the diaphragm in the vertical direction and in the back-front and side directions as a result of the upward, forward and lateral movements of the ribs;

- rhythmic walking - in which breathing is adapted to walking, that is, the 1st breath is taken, the 2nd breath is exhaled.
- sound breathing exercises - vowels and consonants are used in order to perform sound breathing exercises. These exercises are used to increase lung ventilation, for example: vowels are used when inhaling and exhaling. Also, in order to expel phlegm from the respiratory tract, it is performed by saying consonant letters while exhaling.

Moderated resistance exercises :

- diaphragmatic breathing exercises with the resistance of the instructor's hands in the area of the edge of the rib cage, near the middle of the chest;
- 1 kr diaphragmatic breathing exercises by placing sandbags of different mass (0.5-) on the upper quadrant of the abdomen;

- instructor's work in the field of life pressure conqueror high _ _ breast two bilaterally breathing exercises ;
- bottom Instructors in the field of agriculture _ _ _ _ pressure involving the defeating diaphragm bottom breast breath _
- upper chest breathing exercises with resistance to the instructor's pressure on the upper part of the chest;
- breathing exercises performed by blowing toys and balls

Drainage breathing exercises - the main attention is paid to draining initial conditions, that is, the requirement for it is that the pathological center should be above the bifurcation of the bronchi, above the head of the body. The following initial conditions apply:

- a) lying on the healthy side;
- b) knee-elbow;
- c) lying on the stomach with the head down;
- g) lying on the stomach, the leg is raised to 15, 30, 45 degrees;
- d) sitting, head bent down.

Drainage breathing exercises - from the bronchus and trachea exercises that help discharge are performed by changing the position of the body, which improves the evacuation of sputum during coughing.

Lungs segments for segmental x tools .

The nature of these exercises depends on the localization of the purulent process.

When performing breathing exercises, when the injury site is above the bifurcation of the trachea, the initial position should be bending the body towards the bifurcation of the trachea, and the final position should be bending from the side of the bifurcation to the mouth. Thus, depending on where the purulent process is located, the body should be changed in different ways.

Static and dynamic drainage exercises should be performed to improve the separation of the detachment from the injured area.

Static drainage exercises.

10-15 minutes before starting therapeutic gymnastics, the patient should take a drainage position. He should gradually increase the time of standing in this position. If the amount of discharge is large, and the patient tolerates this condition easily, then the time can be increased to 30-40 minutes. The patient should complete the drainage exercise with a healthy lung to prevent secretions from passing into the healthy lung.

Right lung. If the purulent process is located in the front upper lobe of the lung, the patient should lean back while sitting. When draining the back part, it should be bent to the left in the forward upper segment.

When exhaling, the methodist applies pressure to the upper part of the chest. Light vibration massage and patting improves phlegm separation during exhalation.

When draining the right middle lobe of the lung, the patient should lie on his back with the legs bent to the chest, with the head thrown back, or lie on the healthy side with the stomach. To improve phlegm separation from the middle lobe of the left lung, the patient should lie on the left side with the tip of the leg raised and the shoulder hanging down. In the place where sputum is coming out, the lower lobe of the right lung should be gently massaged and patted.

When draining the right lower lobe of the lung, the patient's position should be on the left side with his left hand pressed to the chest. The side of the leg should be raised 40cm. During

exhalation, the methodist should vibrate and pat the center of the 2 shovels in the middle of the back of the lungs.

Left lung. When draining the anterior upper lobe of the lung, the patient should lean back in a sitting position. If the location of the abscess is in the back segment, the patient should bend forward, if it is in the upper segment, bend to the right. When draining the upper part of the lower segment of the lung, the patient should be in the position of hanging the left shoulder on the right side, with the right hand pressing on the chest, the left leg should be bent at the knee joint.

When draining the lower part of the upper segment, the patient should be lying on the right side with a pillow on the chest, and the left leg should be bent at the knee. The foot of the bed can be raised 50 cm to drain the left lower lobe of the lower segment of the lung. The patient lies on his left side and puts his hand on his chest. When turning to the anterior side, the separation separates from the posterior segment.

The supine position is a convenient method for draining the lateral segment.

During inpatient drainage exercises, the patient should swallow thoroughly. The mechanism of cough should be explained and swallowing should be taught. It is advisable to observe the movement of the cat in front of the mirror. The patient should be taught to differentiate between a reflex cough and a cough full of sputum in the bronchi. When the bronchi are full of sputum, coughing helps expel it from the lungs. When completing pulmonary drainage, the healthy lung should also be drained. The goal is to prevent secondary inflammation in healthy lungs.

Dynamic draining exercises.

Depending on where the purulent processes are located in the lungs, simple exercises will be more effective. Choosing the right initial state is very important. Some patients self-select a comfortable position to increase sputum secretion. In addition, we should focus on the deep development of diaphragmatic breathing. As a result, it improves the secretion of sputum from the bronchi. They provide further drainage of purulent spaces,

- initial change the tool often , _
- circle get a job and h arakats ,
- body rotate

On the basis of CT and ultrasound examinations, the localization of the pathological center and the degree of spread of lung damage are determined. Based on this information, a set of exercises for DJT was selected, including improving blood and lymph circulation in the affected part of the lung, improving the drainage function of the lung, lung there are special breathing exercises aimed at accelerating the absorption processes of inflammation in the tissue. Knowing the location of the damaged area, you can choose a specific position for more effective exercises.

The patient's response to physical activity is monitored by heart rate and breathing rate, blood pressure is measured before and after treatment. After DJT treatment, a slight decrease in saturation is detected, but it is restored in no more than 5 minutes. When the lung is damaged, DJT in pneumonia usually begins in the initial position (BX) lying on the back, exercises for small and medium muscle groups (fingers, arms, legs) are performed together with static and dynamic breathing exercises. Exercises performed at a slow pace, gradually increase the depth of inhalation and exhalation, do not use exercises with forced and intensive inhalation or exhalation, try not to delay the exhalation either. During the procedure, the

patient is asked to cough into a tissue, which is discarded after the procedure. If pain, dizziness or other negative reaction occurs, the patient pauses until these phenomena are eliminated. Any breathing gymnastics procedure should consist of an initial, main and final part. At the initial stage of recovery for pneumonia, the total number of exercises can be in the range of 10-12, the ratio of special breathing exercises and exercises for training the muscles of the limbs is 1: 1. Later, it can be changed to 1:2.

Therapeutic gymnastics should not be performed when evaluating the modified Borg scale with a score of 4 or more.

For supervising physicians:

- SpO₂ assessment at rest and during exercise ;
- Assessment of resistance to exercise according to the Borg scale;
- Assessment of muscle strength according to the MRC scale (muscles);
- Assessment of manifestation of panting according to MRC scale (panting);
- assessment of the intensity of anxiety and depression according to the hospital anxiety and depression scale (HADS);
- assessment of functional disorders, difficulties in performing daily tasks, level of necessary actions on BDI (initial index of dyspnea) and TDI (dynamic index of dyspnea);
- evaluation of the quality of life according to the results of the European questionnaire on the quality of life EQ-5 [3,5,9].

After completion of the individual medical rehabilitation program for patients with pneumonia, all patients are advised to continue training independently.

Recommendations for patient self-monitoring: (in mental state:)

- SpO₂ assessment at rest and during exercise ;
- assessment of dyspnea and exercise tolerance (Borg scale and 6-minute walk test)
- tests for assessing the functional state of the respiratory system according to Shtange, Genchi)

Determination of the vital capacity of the lungs.

The examination is carried out using a special spirometer. Water spirometer from 2 metal spirometers organize found will be They are each other entered will be External ts year high part has 2 characters to see window will : check level and water level like characters . A tube with a hole is installed inside it one end is external towards looked at being ten a rubber tube is put on . The 2nd end of the iron pipe is water level located _ The upper part of the large (external) ts open being known to the mark until water with is filled . Inside it is a small (inner) cylinder placed , the bottom is open will be Water complete when full him inside the air won't stay To the internal ts ilindir a divided scale (from 0 to 7000 m) is placed.

While blowing through the tube, the inner cylinder fills with air and slowly rises from the water. ETS (lung capacity) is measured as follows: the examinee takes a deep breath and then exhales. Take a deep breath and exhale into the tube behind the spirometer. After exhalation stops, the inner cylinder remains elevated. The calculation is carried out according to the indicator of the "Inspection level" scale. After each check, the air inside the cylinder is removed by removing the tube and the scale is brought to 0 level. The size has an accuracy limit of 100 ml, OTS can also be determined using a dry spirometer and spiograph.

Lung vital capacity (LVF).

This is the maximum capacity of air that should be exhaled after taking a deep breath. CPR is measured in liquid or dry spirometers. More accurate readings are obtained in liquid

spirometers. After exhaling 2-3 times, the examinee pinches his nose with his fingers and exhales into the spirometer tube. The process can be reversed. The obtained value of O'TS is called exact AO'TS and it is compared with the size of O'TS that should be (LO'TS). LO'TS is calculated by the following formula:

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