

BRANCHIAL ASTHMA AND CARDIAC ASTHMA: CAUSES OF CLINIC MANIFESTATIONS AND TREATMENTS

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Anantation: the main differences between branchial asthma and cardiac asthma are analyzed. Branchial asthma develops due to inflammation of the respiratory tract and reaction to allergens gone is casual, manifested by narrowing of the pulmonary tract and air deprivation. As a result of heart failure in asthma, the lungs become smaller with fluid filling and breathing disorders.

Keyword: bronchial asthma: cardiac asthma: respiratory failure, heart failure, bronchospasm, Potophysiology pulmonary edema, Etiology, and ciliary treatments

Bronchial asthma is a chronic, inflammatory-natured airway non-contagious disease. Chronic inflammatory processes in the respiratory organs lead to their hyperphallicity, as a result of which bronchial asthma develops when an allergen or excitatory effect is encountered, which reduces the rate of air flow and leads to suffocation. A bronchial asthma attack usually develops after the triggering effect and is characterized by short acute breathing and noisy prolonged breathing. It is usually accompanied by symptoms of sticky sputum and noisy cough. Bronchial asthma can lead to emphysema of the lungs and heart, the appearance of an asthma condition. Bronchial asthma is accompanied by chronic inflammation of the pulmonary tract and bronchospasms, which leads to narrowing of the airways and breathing difficulties.(1)

Blockage of the bronchi by the secretion of the respiratory tract due to hyperfunctions of the mucous glands. The exchange of muscle tissue of the bronchi into connective tissue as a result of prolonged eitis of the disease, which leads to sclerotic changes in the bronchial wall. Despite the complexity, bronchial asthma is well treated, as a result of which permanent and long-term remission can be achieved. The constant control of the condition of patients makes them halos from taking auxiliary drugs to prevent, reduce or eliminate the onset of shortness of breath attacks, and also makes it possible to lead an active lifestyle. This will help maintain lung function and completely eliminate the risk of complications.

Bronchial asthma etiology: the most dangerous factors that develop asthma are exogenous allergens. Laboratory tests confirm a high level of susceptibility to allergens in asthmatic patients and in people of the risk group. The most common allergens are household allergens — House and book Dust, as well as fish feed in the aquarium, pet digger, plant-natural allergens, and food called nutritive counts allergens. In 20-40% of patients suffering from bronchial asthma, allergies are frozen as a result of working in production sites, for example, perfumery stores, which adversely affect drugs, in 2%. The infectious factor is also an important link in the pathogenesis of bronchial asthma, since microorganisms, their metabolic products, can act as

allergens and cause sensitization. In addition, constant contact with the infection keeps the inflammation of the bronchial pathways in an active state. "For the Prevention of bronchial asthma, patients are advised to stay away from allergens and strengthen the immune system."

Cardiac asthma etiology:

The etiology of cardiac asthma, the cause of origin, is associated with a deficiency in the left ventricle of the heart, a condition that causes fluid accumulation in the lungs. The main etiological factors are:

Heart left ventricle failure: when the left ventricle of the heart has difficulty pumping blood from the lungs to the heart again, blood accumulates in the lungs and the lungs fill with fluid, causing difficulty breathing. Coronary heart disease: narrowing of the heart arteries results in insufficient blood reaching the heart, which leads to weakening of the heart muscle and insufficient functioning of the left ventricle. "Cardiac asthma is accompanied by difficulty breathing due to excessive blood accumulation in the pulmonary veins."(3) cardiac hypertrophy: when the muscles of the left ventricle of the heart are in a state of hypertrophy (over-enlargement), blood circulation is disrupted and fluid accumulates in the lungs.

Aortic valve failure or stenosis: when the heart valves are not working well (especially the left ventricular valve), it becomes more difficult to completely release blood from the heart, causing blood to flow back and into the lungs.

Chronic heart failure: general cardiac function is impaired as a result of many years of persistent heart disease, such as hypertension or other heart disease.

For these reasons, cardiac asthma is accompanied by shortness of breath and pulmonary edema.

Heart rhythm disorders (arrhythmias): heart rhythm disorders can prevent the heart from contracting effectively. This leads to fluid buildup in the lungs, especially as a result of decreased left ventricular function and difficulty pumping blood completely out of the heart.

Myocardial infarction of the heart: as a result of myocardial infarction (heart attack), part of the heart is damaged, and the muscles in that area cannot contract well. This causes left ventricular failure and causes serdech to develop asthma.

Mitral valve deficiency: deficiency or narrowing of the Mitral valve makes it difficult for blood to flow back from the lungs to the left ventricle of the heart, which in turn causes blood to accumulate in the lungs and fluid to accumulate.

Hypertension (high blood pressure): hypertension, which has lasted for years, leads to thickening of the muscles of the left ventricle (hypertrophy), which causes a good heart failure. In this case, blood accumulates in the lungs, fluid appears, and cardiac asthma develops.

Valvular heart disease: diseases associated with the heart valves, such as aortic stenosis or mitral insufficiency, lead to impaired blood transfer from the heart and return to the lungs. These conditions also cause serdech asthma.

Dilate cardiomyopathy: in this disease, the ventricular muscles of the heart are weakened and stretched, which reduces the function of the heart's blood pump and leads to the accumulation of blood in the lungs.

Pericardial disorders: diseases associated with the pericardium (the membrane surrounding the heart), such as pericardial tampon or constrictive pericarditis, reduce the heart's ability to contract, and this in turn can cause cardia to have asthma symptoms.

Chronic obstructive pulmonary disease (sook): if heart and lung diseases coexist, this condition creates additional stress in the lungs and heart. This motivates serdech to develop asthma.

Diabetes: diabetes increases the risk of developing cardiovascular diseases, including disorders in the functioning of the heart, which can lead to serdech asthma.

As can be seen from these causes, cardiac asthma is a pathology mainly associated with heart disease and heart failure, the main mechanism of which is the incomplete release of blood from the heart and difficulty breathing as a result of fluid accumulation in the lungs.

Branchial Asthma Clinic: difficulty breathing: difficulty breathing is usually felt, lack of air. Whistling breath: a whistling sound can be heard while breathing. Cough: a strong cough is often observed, especially at night or at dawn. Chest tightness: a feeling of stiffness or pressure appears on the chest. Variability of attacks: short snores that are exacerbated by allergies, infections or stress. It usually starts suddenly, it becomes difficult to breathe due to bronchospasm, it is due to wheezing, coughing and often allergic reasons. "In the diagnosis of bronchial asthma, along with clinical symptoms, allergological examinations are also important."(4)

Cardiac Asthma Clinic: difficulty breathing: shortness of breath usually occurs with physical activity or in a lying position, suddenly intensifies. Cough typical of pulmonary edema: the patient coughs hard, blood mixed sputum may come out. Chest tightness: due to heart failure, there is a feeling of tightness and heaviness in the chest. Sudden awakening: at night, a lot of awakenings are observed that cause respiratory failure. Swelling in the legs: heart failure causes swelling in the legs and ankles.

Clinically, while branchial asthma is accompanied by respiratory problems, cardiac asthma is caused by cardiac-related pathologies causing respiratory failure.

1. Branchial Asthma:

Pathophysiology: bronchial asthma it is characterized by chronic inflammation of the respiratory tract. This disease increases the sensitivity of the airways, which leads to narrowing of the bronchi (bronchospasm). During asthma attacks, the muscles inside the bronchi contract, the pathways narrow and swelling occurs due to inflammation, as well as the formation of thick mucus. As a result of this, the patient experiences difficulty breathing, wheezing, coughing and wheezing.

Causes: bronchial asthma can often be caused by an allergic reaction, substances affecting the respiratory tract (dust, animal whiskers, pollen, etc.), colds, cold air, exercise, stress, and certain medications.

Respiratory failure mechanism: shortness of breath in bronchial asthma is caused by bronchospasm and narrowing of the airways. This makes the breathing process difficult, resulting in inadequate breathing and impaired complete ventilation of the lungs.

2. Cardial Asthma:

Pathophysiology: Cardial asthma it is caused by heart failure. The left part of the heart, in particular, cannot properly control the pumping of blood through the pulmonary vessels. As a result, blood accumulates in the lung tissue, which leads to pulmonary edema (accumulation of fluid inside the lungs). As a result, the ability of the lungs to exchange gas is reduced, which makes breathing difficult and causes wheezing.

Causes: Cardial asthma usually develops due to chronic heart failure, left ventricular dysfunction, high blood pressure, ischemic heart disease or heart valve defects.

Respiratory failure mechanism: respiratory failure in Cardial asthma is caused by fluid accumulation in the pulmonary vessels due to weakness of the heart. This prevents the fluid from exchanging gas, causing oxygen to be unable to flow through the lungs into sufficient blood.

Branchial asthma: pathophysiology: bronchial asthma it is characterized by chronic inflammation of the respiratory tract. This disease increases the sensitivity of the airways, which leads to narrowing of the bronchi (bronchospasm). During asthma attacks, the muscles inside the bronchi contract, the pathways narrow and swelling occurs due to inflammation, as well as the formation of thick mucus. As a result of this, the patient experiences difficulty breathing, wheezing, coughing and wheezing.

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Separate treatment of bronchial asthma is carried out as follows. This treatment process is structured according to the patient's degree and symptoms of the disease:

Treatment options: in the treatment of bronchial asthma, the patient is corrected according to the degree and symptoms of the disease. "Innovative methods, such as biological treatment, help to keep bronchial asthma under long-term control."(5)

Bronchodilators: Quick Help: used when difficulty breathing is observed. They can be short-term and long-term. Short-acting Beta-2 agonists: quickly relieves bronchospasm.

Example: Salbutamol.

Application: used during bronchial asthma attacks or as an immediate aid. Long-term Beta-2 agonists: used for prophylaxis.

Example: Salmeterol.

Allergen control and immunotherapy:

Allergic asthma: when bronchial asthma is associated with sensitivity to allergens, it is important to protect against allergens. Immunotherapy: used to reduce allergic reactions, which can be effective in controlling asthma.

Breathing exercises and physical activity:

Breathing techniques: special breathing techniques are used to control asthma symptoms. Exercise: useful for increasing lung capacity and improving overall health.

A personal plan is drawn up to show each patient how to deal with asthma attacks and when to seek immediate medical attention.

"Bronchial asthma should be monitored by doctors with long-term monitoring and medication."(6)

Separate treatment of serdechny asthma: based on impaired heart function, therefore, the methods of treatment of this condition are aimed at restoring the normal functioning of the cardiovascular system and reducing pulmonary edema.

Diuretics (liquid-releasing drugs):

Fluid reduction in composition: since Cardial asthma is a condition associated with fluid accumulation in the lungs, diuretics help to release fluid.

Examples: Furosemide, Spironolactone.

Application: used to reduce pulmonary edema and relieve breathing. These drugs reduce the load on the heart by removing excess fluid from the body.

Vasodilators:

Dilation of blood vessels: these drugs dilate blood vessels to relieve the heart's blood pump function, resulting in reduced fluid accumulation in the lungs and easier for the patient to breathe.

Examples: Nitroglycerin.

Application: Cardial is used to reduce the load on the heart and improve blood circulation during asthma.

Oxygenotherapy:

Improving breathing: to eliminate oxygen deficiency, the patient needs to breathe oxygen. Oxygenotherapy can help alleviate oxygen deficiency due to fluid in the lungs.

Application: in severe serdech asthma attacks or at the time of advanced pulmonary edema, the patient will need oxygen therapy.

Preparations that support the heart muscle:

Strengthening the heart: these drugs help to eliminate the weak functioning of the heart muscle and restore the functioning of the heart.

Examples: Digoxin.

Application: helps to strengthen the muscle activity of the heart and treat cardia as asthma.

As first aid in cardiac asthma, it is important to give the patient a half-sitting position and ensure oxygen breathing."(7)

Conclusion although there are many clinical differences between bronchial asthma and cardiac asthma, both of them cause breathing difficulties in the patient and can be life-threatening in severe cases.

Bronchial asthma mainly causes narrowing and spasm of the bronchi due to allergic or inflammatory conditions of the respiratory tract. In bronchial asthma, the process of exhaling becomes more difficult, and the patient experiences recurrent attacks. Treatment of the disease is carried out with bronchodilators, corticosteroids and other anti-inflammatory drugs.

Cardiac asthma, on the other hand, is a result of heart failure. In this case, the patient feels difficulty breathing, poor heart function causes pulmonary edema. The treatment of serdech asthma is aimed at improving heart function, with the use of medications such as diuretics, ACE inhibitors and beta blockers.

In conclusion, although bronchial and cardiac asthma are two unrelated diseases, they are manifested by respiratory disorders. Treatment methods are selected based on the causes of the

origin of the disease. In both cases, early diagnosis and proper treatment approaches are important for patient life.

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