

Bronchial Asthma: Distribution Among The Population, Etiopathogenesis of The Disease, Diagnosis, Treatment and Preventive Measures

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Abstract

This article presents information about bronchial asthma, a chronic-allergic disease of the respiratory system, its relevance among ahoi, as well as modern methods of combating the disease. Cases of asthma have increased over the past twenty years, and today about 300 million people suffer from asthma. It is one of the most common chronic diseases in humans, depending on gender and age. The mortality rate among people with bronchial asthma is very high. The increasing incidence of bronchial asthma in children over the past twenty years has been encouraging such a hoalt to be considered not only a disease, but also a social problem, and the maximum forces are aimed at combating it. According to the World Health Organization (who), a 4-10% prevalence of bronchial asthma among humans in a short period of time indicates a further increase in this disease in the future. On top of this, the pollution of the environment, along with the deterioration of the human gene pool, as well as various infectious diseases do not take their toll. Including the COVID-19 virus..

Key words: bronchial asthma, triggers, allergens, asthma attacks, expiratory whooping cough, ingestion glucocorticoids

Introduction

bronchial asthma is a chronic, non – infectious, inflammatory-nature airway disease. Chronic inflammatory processes in the respiratory organs lead to their hyperphallicity, as a result of which, when exposed to an allergen or excitatory effect, bronchial obstruction (contraction) develops, which reduces the rate of air flow and leads to suffocation. The most dangerous factors that develop asthma are considered to be 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 considered to be household allergens. In 20-40% of patients suffering from bronchial asthma, allergies are observed as a result of working in production sites, for example, perfumery stores, which negatively affect drugs, in 2%. Infectious factors

are also an important link in the pathogenesis of bronchial asthma, since microorganisms, their metabolic products, can act as allergens and cause sensitization. So-called Gapten allergens, non-protein-structured allergens that fall into the human body and bind to its proteins, also increase the risk of allergic attacks and bronchial asthma. Triggers i.e. factors such as cold hardening, genealogical history, and stress States also play an important role in the etiology of broxial asthma. Pathogenesis. On the basis of changes in the bronchi lies the sensitization of the body (becoming sensory). As a result of rapid allergic reactions in the form of anaphylaxis, the body produces anitans, and if the same allergen is re-observed, a rapid histaminization occurs, which leads to swelling of the bronchial mucosa and hypersecretion of the glands. Immunocomplex allergic reactions and delayed sensitivity reactions develop in a similar way, but manifest with slower symptoms. In recent years, calcium levels in the blood have also been seen as a predisposing factor, as excess calcium can lead to spasm, including bronchial muscle spasms. Pathologoanatom examinations of those who died as a result of shortness of breath record complete or partial obstruction of the bronchi with sticky, dark mucus and emphysematous pulmonary enlargement due to difficulty breathing. Examination of tissues in a microscope gives a similar image — a thickened muscle layer, hypertrophied bronchial glands, an infiltrative, desquamated state of the bronchial walls.

Clinic: by weight level:

- Intermittent, i.e. periodic
- Mild percussive
- Intermediate percussive
- Severe percussive

In bronchial asthma, shortness of breath attacks are divided into three stages:

- Trigger Effect period;
- * Peak period;
- Backward development period.

Materials and Methods

The period of the triggering effect is more pronounced in bronchial asthmatic patients of an infectious-allergic nature: vasomotor reactions by the nasopharyngeal organs (runny nose, incessant hitting the AXA).

The second period (it can begin suddenly) is expressed by a feeling of tightness in the chest, which does not allow free breathing. Breathing is sharp and short, and exhaling is long and

noisy. Breathing loud wheezing, a cough with sticky sputum occurs, which causes respiratory arrhythmias.

During the attack, the patient's position is mandatory, he usually sits, leaning forward, trying to pull his elbows to his knees. The face will swell and the neck veins will swell at the time of exhaling. Depending on the severity of the attack, muscle involvement can be observed to help overcome resistance in breathing. In percussion, the sound is clear and similar to the sound that comes out when hitting an empty box, since the air in the lungs is increased, lung mobility is limited, and their boundaries are shifted downward. When the lungs are heard, it is heard to exhale with long and weakened and dry wheezing.

During the period of back development, the gradual release of sputum begins, the number of wheezes decreases, and the attack of shortness of breath decreases more and more.

Diagnostics. The diagnosis is usually made by a lung specialist (pulmonologist), relying on complaints and symptoms. All other research methods are aimed at determining the severity and etiology of the disease.

Spirometry. This will help to assess the degree of bronchial obstruction, determine its alteration and recovery, as well as confirm the diagnosis. asthma breathing bronchial after bronchial asthma after broncholytic ingestion increased by 12% (200ml) to 1 second breathing volume. But for more accurate information, spirometry must be performed several times. Picfloumetry, or measurement of peak respiratory activity, allows monitoring of the patient's general condition and comparing the results. Additional diagnostic methods tests with allergens include assessment of the gas content of the blood, ECG, bronchoscopy and X-ray.

Laboratory analysis is important to confirm the nature of allergic asthma, as well as to control the effectiveness of treatment.

* General blood analysis. A slight increase in eosinophilia and Ect.

* General sputum analysis. When viewed under a microscope, Bal'gam can detect large amounts of eosinophils in it, Sharko-Leiden crystals, Kurshman's spirals. Neutral leukocytes can be detected in patients with bronchial asthma associated with infection, who are under an active inflammatory process.

- Biochemical analysis of blood — not the main method of diagnosis, the patient is used as a supplement to determine hoalt.

- Study the state of immunity. In bronchial asthma, the number and activity of T-suppressors is sharply reduced, the number of immunoglobulins in the blood increases. The use of tests to determine the amount of Immunoglobulin E is important when it is not possible to carry out

allergological tests.

Treatment. Regardless of the fact that bronchial asthma is a chronic disease and the periodicity of attacks, on the basis of treatment lies the restriction of contact with allergens, adherence to a regular diet and work on the right thing. If it is possible to detect an allergen, specific hyposensitization treatment can help reduce the body's reaction to the allergen. In order to eliminate attacks of shortness of breath, beta-adrenomimetics are used in the form of aerosol, which help to quickly expand the bronchi and move sputum. Such preparations are phenoterol hydrobromide, salbutamol, orthyprenaline. In each case, the dose is assigned separately. ipratropium also well eliminates shortness of breath ulcers from drugs of the M-cholinolytic group – ipratropium bromide aerosol and its association with phenoterol.

- Treatment of Intermittent bronchial asthma consists of inhaling β_2 adrenomimetics (chromolin-sodium, neodochromyl, ditek, intal-Plus) with a cyst effect for prophylactic purposes before physical exertion or giving m-cholinoblocators instead of bunitol. Alternatively, specific immunotherapy should be started with the help of an allergist.
- Treatment in the persistent form of bronchial asthma consists in the daily use of drugs for prophylactic purposes. In the amount of 200-500 MCG/milk, when calculating with respect to beclometazone, it is necessary to give inhaled glucocorticosteroids, neodochromyl or long-acting theophylline preparations. Short – acting β_2 -adrenomimetics are given according to need. In this case, if the correct basic treatment is prescribed, the need for them goes away and the attack disappears. If the symptoms of the disease do not decrease when prescribed inhaled glucocorticosteroids are given, the dose of the hormone is increased by 750-800 MCG/milk, or additional long – acting β_2 -adrenomimetics are added to previously prescribed hormones. It is advisable to give them in the evening. If the changes to the treatment do not improve the patient's condition, that is, the symptoms of the disease increase and the need for bronchodilators increases, then the disease is carried out in accordance with the III stage of treatment. In the treatment of acute forms of bronchial asthma, hormonal therapy is used, a quarter of patients require glucocorticosteroids. In the morning, 15-20mg of Prednisolone and antacids protecting the gastric mucosa are taken. In the hospital, hormonal drugs can be used in the form of injections.

Conclusion

The course of bronchial asthma consists of periods of exacerbation and remission, when the disease is detected in a timely manner, long-term and effective remission can be achieved with appropriate treatment measures. The outcome of the disease depends on how the patient cares about his health and how he follows the doctor's instructions.

Preventing chronic bronchitis, quitting smoking, and reducing contact with allergens are important in prevention. This is especially important for people who are at risk or have a hereditary predisposition. In order to bring the disease into remission for a long time, however, it can be achieved by preventing patients with bronchial asthma from coming into contact with allergens, taking medications on time, and taking more walks in environmentally friendly areas.

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