

COUGH IN VIRAL RESPIRATORY INFECTIONS. PROBLEMS AND SOLUTIONS

Annotation: This article discusses the main problems of managing patients with cough and ways to solve them.

Key words: acute respiratory viral infection, cough, solutions, diagnosis and treatment algorithm.

Acute respiratory viral infections (ARVI), including influenza, are characterized by an extremely high incidence rate, and in all age groups of the population. During periods of annual epidemics, up to 10 % of the world's population falls ill, and during pandemics, the number of cases increases by 5 times. Cough is the main complaint presented to primary care physicians for acute viral respiratory infections. Cough, most often observed when infected with parainfluenza viruses, influenza, respiratory syncytial viruses, is caused by the development of laryngitis, tracheitis, fahrengitis.

SARS and influenza account for up to 90% of all cases of infectious diseases. At the same time, ARVI accounts for up to 40% of all days of disability in the structure of the total incidence. At the same time, cough remains one of the first clinical manifestations of morbidity. In this regard, special attention should be paid to the correct treatment tactics for ARVI. Particular relevance is attached to this problem in connection with the outbreak of a new coronavirus infection COVID-19.

The epidemic has attracted the attention of health professionals and the population around the world, since previously coronavirus infections in humans did not go beyond the permissible level of biological risk. However, the consequences of the mutations of these viruses indicate that the transformations of the latter can lead to emergencies.

The purpose of the study: To identify the main problems of managing patients with cough and ways to solve them.

Materials and methods : Cough (tussis- is a reflex cancer that plays an important role in the self-purification of the respiratory tract, both from foreign bodies from the outside and from endogenous formed products (mucus, blood, pus, tissue decay products. There are several classifications of cough: By duration:

Acute - up to 3 weeks.

Subacute (postinfectious) - from 3 to 8 weeks.

Chronic - more than 8 weeks.

By nature: Productive (wet) cough, accompanied by sputum, is most often caused by a lesion of the lower respiratory tract. As a rule, it is associated with the development of a pronounced inflammatory process in the bronchopulmonary tree (chronic bronchitis, bronchial asthma, lung abscess, lung cancer) Unproductive (dry) - not accompanied by sputum discharge a) Irritative cough, caused by damage to the upper respiratory tract, compression of the main bronchi, enlarged lymph nodes, ingestion of foreign bodies, interstitial lung diseases, postnasal congestion, CHF, GERD, the use of certain medications. According to the duration of the cough act, Episodic Short-term / paroxysmal Persistent cough.

Analyzing the problems of managing patients with cough, 2 problems can be identified:

Unjustifiably widespread use of antibacterial therapy in patients with acute cough.

Irrational antitussive and mucoactive therapy. If we talk about the first problem, then it should be noted here that the primary mistake is the appointment of AB in ARVI. The term ARVI includes a number of acute infections of viral etiology, affecting mainly the upper respiratory tract and characterized, as a rule, by a mild and short course and common clinical symptoms (hyperthermia, runny nose, cough, general malaise). We are talking about diseases such as tonsillitis, pharyngitis, rhinitis, sinusitis, bronchitis. Based on the data of the European Protocol of 2019, it was revealed that approximately 43% of patients at an

outpatient appointment with a cold went to a doctor with the sole purpose of having a doctor prescribe them an AB, about 32% of calls with an acute cough at an outpatient appointment stated the need to discharge an AB on this occasion in order for them to buy it at a pharmacy and start taking it. This situation creates prerequisites for the development of antibiotic resistance in patients who do not need antimicrobial therapy for medical reasons.

Also, an analysis of the protocols for the management of patients with COVID-19 at the inpatient level showed that patients were prescribed therapy with Azithromycin at a dose of 500 mg, Ceftriaxone, Levofloxacin and some other AB. At the same time, the level of PCT (Procalcitonin) at the initial stage was less than 0.5 ng/ml. The solution to this problem consists in determining bacterial markers in the blood test: the level of C-reactive protein in the blood test, as well as determining the level of Procalcitonin. Following the analyses, if the C-reactive protein is <20 mg/l, respectively, we have a disease of viral etiology. When determining the level of Procalcitonin - in viral infections and as part of the inflammatory response, the level of PCT increases slightly, rarely reaching 1 ng/ml. In severe bacterial infections, it can increase from 20 to 200 ng/ml. Following the simple algorithm outlined above, it is possible to avoid complications from AMT that aggravate the course of the underlying disease.

For a rational choice of an antitussive drug for acute respiratory viral infections, it is necessary to: Evaluate the productivity of cough (the nature of the secreted secretions, color, mucous or purulent, viscosity, quantity, etc.). To assess the intensity and degree of influence on the patient's condition (fatigue, pain syndrome, communication disorders, insomnia, etc.) If the quality of life is significantly reduced, then symptomatic therapy with antitussive drugs should be prescribed.

Antitussive drugs should not be prescribed to patients with acute cough, as well as to suppress productive cough, since in this situation their appointment may be accompanied by stagnation and contribute to the development of infectious complications. Antitussive drugs are prescribed in cases where cough significantly

worsens the quality of life of the patient. As an antitussive therapy, the drug "Ergoferon" has recently proven itself well. This drug has a regulating effect on the central and peripheral links of the cough reflex. The use of Ergoferon in the treatment of post-infectious cough due to antitussive, broncholytic and anti-inflammatory action allows, regardless of the nature of the cough, to achieve more pronounced therapeutic effects in a shorter time. When choosing a cough treatment for COVID-19, one should proceed from the characteristics of the cough, since with coronavirus infection, cough is unproductive, sputum thickens at the walls of the respiratory tract, therefore, it would be advisable to prescribe mucolytics and mucoregulators.

Such drugs that have proven themselves in coronavirus infection include Acetylcysteine (ACC), the point of application when using this drug is bronchial secretions / mucus. Its mucolytic effect is realized in the bronchial lumen and is based on the presence of sulfhydryl SH-GROUPS in its molecule, which break the disulfide bonds of mucopolysaccharides of sputum, making it less viscous.

Conclusions: Unreasonably prescribed cough treatment often causes a slowdown in the natural recovery processes in acute respiratory viral infections, as well as the development of side effects of medications. Cough treatment is an urgent, but not an easy task that requires the rational use of pharmacological agents. The main objectives of cough treatment against the background of acute respiratory viral infections are its elimination and active therapeutic effect on the causes that caused the cough.

References:

1. Chuchalin A. G. Infectious diseases of the lower respiratory tract // Pulmonology. 1999 p.8-9
2. Uchaykin V. F. Diagnosis, treatment, prevention of influenza and acute respiratory diseases. M.2001. C-16 Coronavirus disease (COVID-2019) situation reports.
3. Schwartz L. S., BME, volume 12, columns 539-544, 1959

4. Internal diseases. Edited by akad. RAMS N. A. Mukhina, acad. RAMS V. S. Moiseeva, acad.. RAMS A. I. Martynova.// M.-GEOTAR Media" Volume 1 P.375