



SOME ASPECTS OF ACUTE STENOSING LARYNGOTRACHEITIS IN CHILDREN

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ANNOTATION

Acute stenosing laryngotracheitis is a complication of acute respiratory disease of viral etiology and occurs as a result of the downward path of the inflammatory process. The primary localization of the pathogenic factor is observed in the larynx, which may be accompanied by a feeling of tickling in the throat, a slight cough. The clinical picture of laryngotracheitis depends on the form and stage of the disease. Adequate measures for the prevention of pathology include various directions. First of all, attention should be paid to strengthening immunity. To do this, it is important to ensure proper rest and a balanced diet. During the epidemic of colds, it is necessary to take personal safety measures: wear a gauze mask; take an antiviral drug for preventive purposes; refuse to regularly visit places with a large crowd of people and wash your hands regularly.

KEYWORDS: *acute stenosing laryngotracheitis, children, diagnosis, treatment, prevention.*

Acute stenosing laryngotracheitis in children is often a complication of acute respiratory disease of viral etiology. The clinical picture of the disease develops gradually in the form of deterioration of the patient's condition with a prolonged course of acute respiratory disease. Very often, when typical symptoms appear in young children, emergency care and hospitalization may be required.

Laryngotracheitis is most often diagnosed in children under the age of 7 years. This is due to the peculiarities of the anatomical development of the larynx and the imperfection of the immune protection of its mucous membrane. As you get older, the risk of pathology decreases, but remains quite high with a decrease in overall humoral immunity against the background of a long course of colds. The mucous membranes of the pharynx and larynx are involved in the pathological process. Local inflammatory edema develops with low production of mucosal secretions. This causes attacks of dry, sometimes barking cough.

As the direct causes of the development of acute stenosing laryngotracheitis, the following conditions can be noted: adenovirus infections and seasonal influenza; chronic tonsillitis and adenoiditis; sore throats caused by coccoid flora (streptococcus, staphylococcus, enterococcus, pneumococcus and others); fungal lesions of the oral cavity and pharynx; allergic alertness of the body and autoimmune processes; dry indoor air and passive smoking;

insufficient fluid intake; chronic diseases of the paranasal sinuses; chemical and thermal burns of the mucous membranes of the upper respiratory tract.

Acute stenosing laryngotracheitis occurs as a result of the downward pathway of the inflammatory process. The primary localization of the pathogenic factor is observed in the larynx, which may be accompanied by a feeling of tickling in the throat, a slight cough. Then the mucous tissues of the trachea, which plays the role of a conducting node for inhaled and exhaled air, are involved in the pathological process. Here, the receptors that produce mucosal secretions are represented in small quantities, so sputum separation is difficult. Compensatory edema causes narrowing of the airways, which can provoke dry wheezing, both on inhalation and exhalation.

The clinical picture of laryngotracheitis depends on the form and stage of the disease. Common symptoms of acute laryngotracheitis in children and adolescents include the following manifestations: intoxication with an increase in body temperature, headache, chills; unpleasant sensations of scratching, dryness and sore throat, which gradually spread to the lower parts of the larynx and trachea; attacks of dry cough with a barking component with a small amount of sputum; a change in the timbre of the voice up to complete aphonia. In the resolution stage, after a coughing attack, purulent sputum is separated without streaks of blood. The



body temperature stabilizes approximately on the 5-7 day of the disease. Cough may persist for 2-3 weeks.

Infectious laryngotracheitis is the most common form of the disease. It can be triggered by viruses, bacteria, mycoplasma, fungi and tuberculosis bacillus. To determine the infectious agent, sputum analysis with bacterial culture and determination of antibiotic sensitivity is used. Allergic laryngotracheitis requires a slightly different approach in differential diagnosis, since antibacterial and antiviral drugs may be contraindicated in this process. Their unjustified appointment can worsen the patient's condition and cause false croup due to increased swelling. Screening tests for allergens are used to identify the allergic genesis of the disease. It is also worth noting that the clinical picture of allergic pathology excludes an increase in body temperature.

In any case, a general blood and urine test is prescribed, in difficult cases tracheoscopy, bronchoscopy and laryngoscopy are recommended. With prolonged persistent cough, it is necessary to do a lung radiography to exclude acute pneumonia. With stenosing laryngotracheitis in children, first aid is required, the absence of which can lead to death due to suffocation. In order to provide pre-medical care, you can give an antihistamine, provide fresh air, seat the baby in bed or lift the head end of the bed. It is necessary to immediately call an ambulance team at any signs of developing suffocation.

In most cases, the treatment of acute laryngotracheitis in children and adolescents is carried out at home. Hospitalization in a hospital is indicated if there are signs of respiratory failure and there is a risk of developing a false croup. In recent years, various methods of treating children with acute respiratory viral infection, occurring with the phenomena of stenosing laryngotracheitis, have been proposed. To date, questions about the expediency of certain methods of treatment are being discussed.

As a rule, in the first 48 hours from the onset of clinical signs, an antiviral drug (Ergoferon, Anaferon, Arbidol, Amixin, Kagocel) is prescribed. If, after 3 days from the start of treatment, the body temperature has not normalized, antibiotics (Ciprofloxacin, Azithromycin, Sumamed, Amoxiclav, Erythromycin, Ampicillin, Klacid and others) are connected to the scheme.

There are disputes about the use of antibiotics for this disease. The data of E.E. Golubtsova and co-authors showed a high prevalence of persistent chlamydia infection in children with recurrent stenosing laryngotracheitis. The authors suggest using "new" macrolides with a wide spectrum of action (including against chlamydia) - sumamed, rulid, rovamycin, josamycin [1]. V.F.Uchaykin and co-authors, noting that the main

cause of laryngeal stenosis in children is influenza or parainfluenza infection, suggests the use of a complex homeopathic drug aflubina as an etiotropic treatment method. The authors also note that in each specific case, especially with croup syndrome in a child, it can be difficult to exclude the role of bacterial flora. The use of aflubin against the background of antibiotic therapy significantly reduces the duration of its implementation and reduces the frequency of side effects of the antibiotic [5,9,12].

L.V.Kramar and co-authors believe that the most significant component of the treatment of acute stenosing laryngotracheitis is inhalation therapy aimed at restoring the patency of the respiratory tract, combating the drying of exudate and the effect on the inflammatory focus. Inhalation therapy was performed in all patients using compression inhalers and ultrasound nebulizers. The frequency and duration of nebulizer therapy was determined by the severity of stenosis and ranged from 2 to 4 inhalations per day [8,11,14].

It is mandatory to prescribe an antihistamine, even with a non-allergic form of pathology. Such drugs as Suprastin, Tavegil, Ketotifen, Pipolfen, Cetrin eliminate swelling of the mucous membrane and facilitate the breathing process.

To facilitate the process of sputum discharge, a mucolytic drug is prescribed (ACC, Lazolvan, Bromhexine, Codelac, Libexin). After 10-12 days, the use of Synecode antitussive agent is justified, which suppresses the cough reflex and eliminates unproductive cough, as a result of which the process of regeneration of the mucous membrane occurs much faster.

In complex therapy, bifiform was also used – a combined drug consisting of natural bifidum bacteria and enterococci, fenspiride hydrochloride, which has an anti-inflammatory effect [6,13], retinol acetate or TrioVit capsules containing vitamins C, E and β -carotene [8,10], phenibut - a nootropic drug that was prescribed to patients with significant violations of bioelectric activity of the brain.

The main thing in the treatment of laryngotracheitis is the elimination of the cause of the pathological process in the larynx and trachea. Therefore, wet cleaning is carried out in the room at least 2 times a day. Airing - every 3 hours. It is recommended to drink plenty of alkaline water (mineral water, milk with soda, some juices and fruit drinks). This stimulates the discharge of sputum and facilitates the patient's condition. The presence of a high body temperature is an indication for taking antipyretic drugs or lytic mixtures.

The approach to choosing a complex of therapeutic and rehabilitation measures should be



individual and determined by the nature of dysbiotic disorders on the mucous membranes of the upper respiratory tract and large intestine, the sensitivity of the respiratory tract and the established changes in the bioelectric activity of the brain. Adequate measures for the prevention of pathology include various directions. First of all, attention should be paid to strengthening immunity.

To do this, it is important to ensure proper rest and a balanced diet. The diet should be dominated by fresh vegetables and fruits. If necessary, they are compensated with complexes of vitamin and mineral supplements. Physical training and hardening of the body minimize the risk of seasonal colds.

The need for immunotherapy in the period of convalescence is indicated by many authors. The duration of immunotherapy courses and the choice of the drug is determined by the presence of an etiologic pathogen and concomitant microflora, the prevalence of the inflammatory process, the age of the child [2,4,9]. V.V.Karpov and co-authors for the first time used an 8-12 week course of nedokromil sodium to prevent relapses of stenosing laryngotracheitis, which was highly effective in 90% of cases [3,6]. For the treatment of children suffering from recurrent stenosing laryngotracheitis were used bacterial lysates, such as rutaskorbin Rue "Belmedpreparaty" ribomunil and related to the promoters of specific and nonspecific immunity [3,5,7].

During the epidemic of colds should take personal precautions: wear a gauze mask; take prophylactic antiviral drug; to abandon regular visits to places with a large crowd of people and regular hand washing.

It is also important to exclude passive smoking, take food and liquids only in a warm form and regularly ventilate the room where you are. Outdoor walks in the park strengthen the mucous membranes of the upper respiratory tract and make them less susceptible to pathogenic factors.

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