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Features of the treatment of exudative otitis media in children of the Black Sea region (Odessa and Chernomorsk, Ukraine)

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Summary. Among non-purulent inflammatory diseases of the ear in children, exudative otitis media is in second place. The purpose of the work is the development of algorithms to increase the effectiveness of treatment of children with exudative otitis media of various age groups. Practical conclusion: therapeutic tactics have their own characteristics; conservative treatment is advisable for two weeks, while maintaining the exudate beyond the specified period, an operation is indicated - shunting of the tympanic cavity.

Key words: respiratory diseases, exudative otitis media, tactics of treatment of exudative otitis media.

Introduction. Acute respiratory infections (ARI) are the common cold caused by a large group of respiratory viruses. According to their social significance, acute respiratory infections are in first place among all diseases [1, 2]. Common for all respiratory viruses are the entry gates - the mucous membranes of the upper respiratory tract, in the epithelial cells of which the viruses multiply, which is accompanied by a wide range of clinical manifestations: intoxication, malaise, general weakness, weakness, as well as muscle and joint pain, swelling of the posterior pharyngeal wall, tonsils (including nasopharyngeal) and an increase in lymph nodes.

Very often, acute respiratory infections are accompanied by nasal congestion, abundant separation of mucus from the nasal passages, which in turn increases the likelihood of complications in the form of acute otitis media, and in the presence of an allergic background, protracted rhinitis, exudative otitis media [3, 4, 5]. There is evidence that viruses and inflammatory mediators act on histamine receptors, causing degranulation of fat cells, therefore, with influenza and acute respiratory viral infections, histamine level rises 2-5 days after the onset of the disease with a peak on the 2nd day [6, 7, 8] .

Because of this, patients with certain allergic diseases are more likely than healthy to develop acute respiratory infections, and the course of the disease in such patients has certain features — a long duration of exacerbations, an increase in the number of cases of bacterial complications, and aggravation of allergy symptoms [9 - 12]. Acute inflammatory diseases of the ear are one of the most common nosological groups encountered by an otorhinolaryngologist on an outpatient basis.

The aim of the work was to study the characteristics of children's ENT - admission in the coastal area, the development of treatment algorithms for children with exudative otitis media in various age groups and increase the effectiveness of treatment of children with this pathology.

Materials and methods. The study was conducted for five years on the

basis of the pediatric department of the Children's City Hospital No. 3 of Odessa and the otorhinolaryngologist department of the Black Sea Children's Clinic. 385 patients with exudative otitis media were examined and treated, without a burdened history and had no concomitant diseases at the time of the examination.

The age distribution was as follows: primary school age (6-9 years) - 27 children (7%), secondary school age (10-14 years) - 140 children (36.4%) and senior school (15-17 years) - 218 children (56.6%). According to the age criterion, study groups were formed. A small number of children in the 1st group are associated with the rarity of this pathology at an early age, which is due to the anatomical and physiological features of the structure of the auditory tube and tympanic mucoperiostitis. The examination consisted of collecting an anamnesis, oto- and rhinoscopy, determining the patency of the auditory tube, nasopharyngeal fibroscopy and otomicroscopy (according to indications), and an audiological study. Laboratory studies, in addition to general clinical studies, included the determination of serum IgE levels.

Results and its discussion. In order to study the features of children's ENT - admission in the coastal area, the admission of a pediatric ENT specialist was monitored in the Black Sea Children's Clinic. The choice of the research location was not accidental, since the city of Chernomorsk is located in an attractive area, has a long coastline of beaches, a developed resort infrastructure and is one of the most dynamically developing cities in the Odessa region in terms of recreation.

Analysis of the appeal to the otorhinolaryngologist - the incidence cabinet was carried out discretely, according to the months of the year; At the same time, the structure of morbidity by nosoforms in different seasons was studied. Studies have shown that, unlike industrial cities, where the peak of referral to an otorhinolaryngologist in a polyclinic occurs in the autumn-winter season, especially during epidemics of acute respiratory infections or influenza, in the

resort coastal area, the largest number of visits occurs in the summer months, when they constantly reside in the city. For children, at least one third of children who come to rest with their parents, or as part of organized children's groups, are added.

The average number of patients admitted in the winter months was 63.4 ± 2.11 children per day, and in the summer months it increased to 80.5 ± 1.98 children per day. Thus, there is a more than 25% increase in referral to a pediatric otorhinolaryngologist in the summer months, which completely correlates with the figures for the relative increase in the contingent serviced during the holiday season. It is also of some interest to analyze the structure of the circulation of the children's contingent by nosofoms.

In summer, the frequency of acute respiratory infections and acute sinusitis increases significantly (on average by 34.6%) and a shift towards ethmoiditis is observed in children of an earlier age group (3-5 years), while in winter there is a slight prevalence of the process in older children (6-9 years old). In addition, in the summer period, the incidence of allergic rhinitis, external otitis media and exudative otitis media significantly increases compared to the winter period. On the other hand, in the summer, the incidence of acute purulent otitis media almost halves.

Modern treatment tactics and prevention of acute respiratory infections include etiotropic, basic and symptomatic therapy. Considerable emphasis is placed on the targeted use of etiotropic drugs with antiviral effects, and strengthening the body's defenses. The basis for the treatment of all acute respiratory infections is the use of symptomatic therapy. It includes the correct drinking regimen, intake of vitamin C, antipyretic and antihistamines.

The treatment tactics used in older children with acute respiratory infections complicated by acute otitis media consisted in the appointment of distracting, painkillers and anti-inflammatory drops in the ear (Otipaks, Otinum); in ensuring free nasal breathing and restoring the ventilation and drainage

functions of the auditory tube (systemic decongestants, Sinupret, Cinnabsin); the use of non-steroidal anti-inflammatory drugs (Paracetamol, Nurofen) as indicated. In cases of acute otitis media, protected aminopenicillins (Augmentin, Amoxiclav) or cephalosporins of 2-3 generations (Cefodox, Zedex, Zinnat) in age dosages were prescribed.

Among non-purulent inflammatory diseases of the ear in children, exudative otitis media is the second most frequent occurrence. Despite the mild clinical course of this disease, in the absence of treatment or its insufficient effectiveness, the outcome of the disease is persistent hearing loss, which may require surgical intervention, and, in some cases, can lead to disability of the child. Among the main causes of exudative otitis media today are the high allergies of the child population, as well as irrational antibiotic therapy, which leads to the emergence of resistant microflora and the development of sluggish forms of inflammation in the middle ear with obstruction of the auditory tube.

Complaints of patients with exudative otitis media were similar and did not differ from those in adult patients: a feeling of discomfort, congestion in the ear, hearing loss, noise, a sensation of fluid transfusion in the ear, slight pain, autophony. The data on the medical history — summarized in the general table, showed that from the moment of illness to the visit to a specialist an average of 1.4 days (in the younger group) to 2.9 (in the older group) took place. Objective examination data revealed total or partial retraction of the eardrum and the presence of exudate. The audiogram showed an increase in the thresholds of airborne sounds by 10-35dB (on average 18.5 ± 2.35 dB). With tympanometry, the majority of the examined patients (68 out of 74 audiologically examined, or 91.9%) recorded a type C tympanogram.

In order to restore the patency of the auditory tube, dilution and evacuation of exudate in all groups, systemic decongestants (Mili-Nosik) and secretolitics (Sinupret) in age dosages were used. In children with elevated serum IgE levels, Erius was chosen as an antihistamine. In the presence of

catarrhal phenomena and subfebrile temperature, Erespal was prescribed. In children of primary school age, this therapeutic tactics was limited. In middle-aged children, the treatment of the auditory tubes by Politzer and self-blowing under the control of parents were added to drug treatment.

In older children, the auditory tube was also catheterized with 0.1-0.3 ml of dexamethasone and trypsin. The indicated treatment was effective in 357 sick children, made it possible to achieve recovery in all cases and to avoid hospitalization of children in a specialized hospital. In 28 patients, due to the inefficiency of the above tactics, they had to resort to shunting of the tympanic cavity in the otorhinolaryngologist clinic of the Odessa National Medical University. Moreover, the exudate viscosity directly correlated with the duration of the disease; after 3 weeks of illness, the exudate often acquired a jelly-like consistency, which created certain difficulties during its evacuation. In the postoperative period, solutions of proteolytic enzymes and glucocorticosteroids were also introduced into the tympanic cavity. The duration of the shunt ranged from 4 to 8 weeks. The indicated therapeutic tactics made it possible to achieve clinical recovery in all cases with the normalization of audiological indicators.

conclusions

1. Attendance of the otorhinolaryngologist - the office of a children's clinic in the resort area is higher not in the autumn-winter period, as is usually noted in the industrial areas of the city, but in the summer months, which is associated with an increase in attendance due to visiting vacationing children.

2. The structure of admission in the otorhinolaryngologist - office of the children's clinic in the summer has its own characteristics associated with a significant increase in acute respiratory infections, exudative otitis media, external otitis media, sinusitis that occur on an allergic background, characterized by a longer duration.

3. The inclusion of antihistamines in the complex treatment of acute respiratory infections, exudative otitis media that occur on an allergic

background is justified, since non-sedative antihistamines have anti-inflammatory effects, which improves the prognosis of acute respiratory infections and allergic diseases.

4. Therapeutic tactics for exudative otitis media in children of various age groups has its own characteristics, which should be taken into account by the children's otolaryngologist when choosing a treatment method.

5. Conservative treatment of exudative otitis media is advisable within 2 weeks. If the exudate is preserved beyond the specified period, an operation is indicated - shunting of the tympanic cavity.

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