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Treatment Exudative Average Otita U Children the Treatment of Exudative Otitis Media in Children

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Abstract: One of the most common pathologies of the middle ear is exudative otitis media (EOM), which is characterized by the accumulation of exudate in the cavities of the middle ear with gradual degenerative manifestations and leads to To conductive or mixed hearing loss. The low-symptom course of the disease, especially in childhood, affects the development of children's speech, worsens learning abilities, indirectly influences on intellectual development and social adaptation and, ultimately, the quality of life of a person of any age [1, 2]. In Russia over 13 million Human suffers with various hearing impairments, about 1 million are children and, according to WHO, by 2020 their number will increase by 30%. More than 1 / 3 all cases of hearing loss and deafness are associated with dysfunction of the auditory tube (ET) [3]. data different authors, to 80–90% children experience at least one episode of ESO before school [4, 5]. IN various sources mentioned O three classical theories of the etiology and pathogenesis of ESO [6]. Thus, there is the concept of hydrops ex vacuo, proposed by Politzer, according to which due to formations negative pressure in cavities average ear on background block transudate is formed in the auditory tube (ET).

Keywords: Exudative theory ESO, implies appearance liquids in drum cavities V result inflammatory changes mucous shells average ear, A secretory theory characterized by the emergence of factors that promote hypersecretion of the mucous membrane of the middle ear.

Introduction: The authors believe that the mentioned concepts of the emergence ESO Today can be considered How links of a single pathological process reflecting different stages of the course of chronic inflammation [7]. However, the clinical manifestations of ESO, the degree of hearing loss, concomitant pathology of the skull, the degree of dysfunction (SD), identification and elimination of causes in various pathogenetic types dysfunctions ST (obstructive, gaping ST and reflux dysfunction), the use of various treatment methods (surgical and non- surgical) depend on the stages of the course of the ESO and provide further forecast. I stage, by classification N. WITH. Dmitrieva And co-author. (1996) identifies a catarrhal form – the formation of negative pressure in the tympanic cavity (TC) and the appearance of transudate within 1 month. II stage - secretory - availability mucous exudate V drum cavities (BP) term up to 12 months. A large number of secretory glands and goblet cells appear in the mucous

membrane cells. III stage - mucous - on over a period of 12 to 24 months, the exudate in the BP becomes thick And viscous. IV stage - fibrous (more than 24 months) - characterized by degenerative processes V mucous shell BP and in drum membrane, scarring, involvement of the auditory ossicles in the process and, consequently, the formation of persistent hearing loss [8]. All researchers united in opinion, What Treatment of ESO in children depends on the stage of the disease, should be complex And be carried out in the early stages [9]. At the catarrhal stage of ESO, treatment includes sanitation of the upper respiratory tract and a course of conservative therapy aimed at on elimination dysfunctions ST. With secretory stages diseases additionally carried out myringotomy With evacuation exudate and possible insertion of a ventilation tube (VT). At inefficiencies conservative treatment shown bypass drum cavity [10]. In children with hypertrophy of the tubal tonsils shown correction tubular tonsils [11]. When mucosal stages conduct sanitation upper respiratory paths With one-time bypass drum cavities And tympanotomy with revision of the tympanic cavity. The indication for one-stage tympanotomy is the absence possibilities removals exudate through mi ringostomy due to increased viscosity. In fibrous stages treatment is being supplemented removal of tympanosclerotic foci and mobilization of the auditory ossicular chain [12].

The generally accepted treatment tactics for patients with ESO are elimination reasons tubarnoy dysfunction, restoration of auditory function and prevention of persistent morphological changes V average uh-huh [13]. Choice Conservative or surgical treatment depends on the stage of the disease and the nature of the pathological process. However necessary note, What single algorithm management patients With ESO No And views at choice tactics treatments ESO at children differ. Majority researchers thinks, that conservative treatment is effective in the early stages of the disease [14]. Conservative treatment suggests medicinal therapy and physiotherapeutic effects on structures average ear And nasopharynx. Additionally applied method blowing auditory pipes and autoinflation, pneumatic massage And local barotherapy (vacuum therapy) of the eardrums.

Drug therapy includes the administration of antimicrobial, hyposensitizing, decongestant, mucolytic and a number of other drugs. It has been established that systemic use of antibiotics in chronic forms of EOM accelerates recovery [15]. According to E. P. Karpova et al. (2014), flumucil - an antibiotic IT is an effective drug of choice in patients with EOM, reduces the duration of treatment by 2-4 days and the need for BP shunting. The use of carbocysteine in combination with mometasone nasal spray furoate allows for rapid relief of adenoiditis symptoms and significantly accelerates the resolution of EOM compared to a monotherapeutic approach. The use of mucoregulatory drugs based on carbocysteine in the complex treatment of EOM helps restore the secretory function of goblet cells, normalize the rheological parameters of secretion, mucociliary transport, and the structure of the respiratory epithelium [16].

The combined antiviral, antibacterial, immunomodulatory, anti-inflammatory, mucolytic and secretomotor action of the herbal preparation umckalor in the treatment of chronic adenoiditis and EOM in the study by S. L. Kovalenko (2009) allows the use of umckalor as a basic therapy [17].

L. A. Toropova et al. (2009) report the results treatments 180 children V age from 1 years before 17 years With ESO V conditions hospital. The authors note that the combination of tympanostomy With appointment fenspiride (erespal) allows for a more pronounced reduction (in 1.3 times) threshold perceptions various frequencies compared to the control group [18].

L. G. Svatko et al. (2001) presented the results of using the drug dimephosphone in the early stages of the disease ESO, positively influencing on state common immunological reactivity and non-specific resistance, parameters in T-cell, humoral And neutrophilic -phagocytic links [19]. IN research IN. M. Svistushkina And co-author (2013) revealed efficiency starting monotherapy with the drug Sinuforte in patients with acute rhinosinusitis and EOM [20].

One from most famous And wide herbal preparations used in European countries, improving

mucociliary clearance, is Sinupret. There are works in which data were obtained that the use of the drug Sinupret is pathophysiologically justified in the treatment of ear diseases. The inclusion of the drug Sinupret in the course of treatment of ESO is indicated for concomitant acute respiratory viral infections due to its pronounced antiviral and immunomodulatory effects. More pronounced positive dynamics of the rhinoscopic, otoscopic picture, a decrease in the time of mucociliary transport, improvement of tonal audiometry parameters and normalization of tympanometry after adenotomy in patients receiving sinupret, By comparison With control group [21]. Catheterization of the auditory canal orifices pipes With introduction medicinal drugs is carried out mainly in children of senior school age. In this case, vasoconstrictors and glucocorticosteroids are most often used [22].

Research methods and materials: Surgical treatment methods include: tympanopuncture, myringotomy, shunting, tympanotomy, anthro - And mastoidectomy, interventions on auditory pipe, nasopharynx, near-nose owls sinuses (ONP). How they show research results, volume of surgical treatment of ESO at children varies from isolated rhinosurgical interventions (endoscopic adenotomy, septoplasty, vasotomy, laser correction tubular rollers) to one-stage operations on structures cavities nose And nasopharynx, sky V combination With microsurgery ear (tympanopuncture / myringotomy with drainage of the tympanic cavity and introduction of a mucolytic ; tympanostomy ; tympanotomy With dissection scars, adhesions of the tympanic cavity and installation of a drainage tube; atticoaditotomy With revision antrum and tympanoplasty ; plastic lateral attic walls With tympanoplasty And etc.). Surgical treatment at ESO provides for evacuation exudate from the tympanic cavity and elimination of hearing loss, A Also directed on restoration of ventilation, drainage And protective functions of ST [23]. Methods should be gentle, So as any rough impact on the ST, due to the anatomical features of its structure, can lead to its scarring, What, V my queue, only will aggravate the course of the disease [24].

Many researchers emphasize the need conducting rehabilitation foci infections in the nasal cavity, paranasal sinuses and nasopharynx And recovery nasal breathing, which undoubtedly has a positive effect on the function of the auditory tubes. In childhood, with a combination of adenoids and ESO, the sanitation of the upper respiratory tract is most often reduced to adenotomy, adenotonsillectomy. Adenoidectomy itself by itself, as an adjunct to myringotomy or in combination With installation Tue, reduces risk occurrence ESO, significantly improves hearing compared to myringotomy or watchful waiting [25].

O. V. Burova et al. (2016) report that balloon dilation cartilaginous parts ST at children with recurrent ESO is minimally invasive, effective And safe by method treatments [26].

In recent years, radio wave tympanostomy has been widely used. The use of radio wave surgery for hypertrophy of the palatine and pharyngeal tonsils in children in combination with radio wave tympanostomy in ESO with a simultaneously pronounced coagulating effect and minimal operating trauma is an effective method [27, 28].

IN. N. Krasnozhen With co-author. (2013) noted the importance of comprehensive diagnostics of CT dysfunction. Conducting three-dimensional computed tomography on device Veraviewepocs 3DP-40 1700 with a slice thickness of 0.08 mm revealed combined concomitant pathology of the nose, paranasal sinuses and nasopharynx in 96.3% of patients. In 20.73%, mechanical obstruction of the nasal passages by adenoid vegetations or polyps was diagnosed as the cause. dysfunctions ST, A V 59.75% - hypertrophied tissue of the tubular ridge [29].

Myringotomy (paracentesis) with the introduction of VT during ESO is one of the most frequently performed surgical interventions in the world. The literature contains recommendations on the duration of stay Tue at sick With ESO from several days to several years. The researchers emphasize that the criteria for determining the timing of shunt removal are are:

volume surgical interventions V nasal cavity and nasopharynx;

speed of restoration of auditory patency pipes;

stage diseases;

the presence of otorrhea in the postoperative period.

Complications of tympanic cavity shunting have been described in the literature, such as:

loss shunt;

displacement of the ventilation tube into the tympanic cavity cavity (at installation her V back quadrante) with subsequent trauma to the auditory ossicles ;

otorrhea ;

atrophy drum membranes;

formation retraction pockets;

tympanosclerosis ;

cholesteatoma And T. d. [30].

Results: Some clinics perform laser myringotomy. Its advantages are: high efficiency, ease of implementation, low trauma, bloodlessness and asepticity. interventions, controllability of the size of the perforation created, long-term preservation of the tympanostomy (up to 3–6 weeks) and its independent closure without any negative consequences, absolute safety [31]. Along With establishment Tue V drum membrane To eliminate the symptoms of obstruction of the auditory tube, methods of long-term shunting of the middle ear through the aditus have been proposed ad antrum or mammillary process [32].T. S. Litovets showed in his work that persistent dysfunction of the CT is accompanied by concomitant pathology of the nose and paranasal sinuses (PNS) in 96.3%. Conducting simultaneous operations on the PNS and using the technique of intratubar radio wave plastic surgery due to ablation of the hyperplastic mucous membrane in the area of the pharyngeal mouths ST (RFITT Eustachian Tuboplasty (RET) allows to restore hearing in 97.8% of patients [33].

In a special category of patients with congenital cleft lip and palate (CLLP) ESO is the most common concomitant ENT pathology and the most common cause of hearing loss. Frequent episodes acute average otitis u children, transferred operation By about VRGN at the age of over 3 years, lead to the formation of conductive hearing loss and the development of ESO in 90% of cases [34]. It is important to note that the prognosis for children with CCLP who undergo early introduction of VT was comparable to the prognosis of children without CCLP. Tympanostomy Maybe be completed on at any stage of treatment [35]. A. S. Gordon And co-author. (1988) discovered, what after uranoplasty with simultaneous bypass drum membranes only at 5% children aged 9 years and older were observed to have ESO. According to the authors, this is due to the fact that at this age the CT is sufficiently functionally developed [36]. This opinions adhere to And other researchers. TL Smith et al. (1994) found that dysfunction ST returned to normal at most children With VRGN V age 8 years [37].

Discussion: In a large systematic review conducted C. L. Kuo et al. (2014), It is noted, that compared to conservative methods of management children With VRGN And ESO installation Tue useful for restoring hearing, speech and language development. However, these patients face a higher risk of complications, the most common of which are tympanic retraction membranes And tympanosclerosis, With frequency of 11 and 37%, respectively [38]. In the study of A. Frisina et al. (1998) in patients with ESO and CRLP conservative therapy was ineffective. That's why Authors recommend include myringotomy and the use of VT during general anesthesia for palate surgery in the treatment protocol [39].

Conclusion: ESO is one of the most frequently encountered and studied pathologies of the

middle ear. Low symptoms this diseases in children can lead to late diagnosis and degenerative changes in the middle ear, which ultimately affects hearing. This circumstance prompts the search for new effective and safe combinations and combinations of conservative and surgical methods of elimination ESO.

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