

Speech Therapy Work In The Postoperative Period With Children With Rhinolalia Speech Disorder

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Abstract: This article provides detailed information about the forms of rhinolalia - speech disorders accompanied by improper nasal pronunciation, their causes, and diagnostic criteria. Open, closed, and mixed forms of rhinolalia are analyzed based on phonetic, physiological, and anatomical characteristics. Methods of speech therapy rehabilitation after surgical intervention and their effectiveness were also considered. The article covers the correctional stages - initial diagnostics, preparation, individual speech therapy sessions, control and reinforcement processes - on a scientific and theoretical basis. Special attention is paid to the need for early intervention, inter-specialist cooperation, and an individual approach to the patient in the treatment of rhinolalia.

Keywords: Rhinolalia, preoperative period, postoperative period, speech disorders, soft palate, nasal resonance, articulation, speech therapy sessions, breathing exercises, phonopedic exercises, rehabilitation, auditory perception, psychological preparation.

Introduction: Rhinolalia is a violation of the structure of the speech apparatus and the process of articulation and sound formation in the pronunciation process. Rhinolalia is characterized by gross violations of sound pronunciation, nasal pronunciation of consonants and vowels, secondary violations of phonemic processes and written speech, underdevelopment of the lexical-grammatical side of speech. In the diagnostic examination of rhinolalia, a consultation of an otolaryngologist, maxillofacial surgeon, and speech therapist is conducted, and anatomical and functional defects of the articulatory apparatus and the degree of impairment of all aspects of speech are determined. In order to eliminate rhinolalia, surgery, physiotherapy, orthodontic treatment, psychotherapy, and speech therapy can be performed.

Forms of rhinolalia: open, closed and mixed. Depending on the function of the palatal-laryngeal junction, modern speech therapy distinguishes three forms of rhinolalia: open, closed and mixed. Open rhinolalia is characterized by a violation of the timbre and pronunciation of sounds when the palatal-laryngeal

barrier is not closed enough, a large gap remains between the soft palate and the larynx wall, air enters the nose. All oral sounds acquire a nasal tone, especially the vowels "I", "U", when pronouncing them, the oral cavity narrows to the maximum. The timbre also changes when forming consonants. Whistling and sliding - acquire a hoarse sound. Explosive sounds ("P", "B", "D", "T", "G", "K") sound unclear, nasal, because there is no necessary pressure in the oral cavity. The air flow in the mouth is so weak that it does not allow the tip of the tongue to vibrate, so the pronunciation of "R" (to the nose) is impaired. Open rhinolalia can be organic and functional. Organic, in turn, can be congenital or acquired due to the above reasons. In organic rhinolalia, there must be clefts of the lip, soft, hard palate, or a combination of them. Anatomical damage to the articulation organs excludes the isolation of the nasal and oral cavities, which leads to a violation of the upper part of the peripheral speech-motor analyzer. Functional open rhinolalia - as a result of frequent diseases of the larynx, the muscles of the soft palate relax. In this case, the functional state of the palatal-pharyngeal apparatus is normal. A type of

functional form is typical open rhinolalia, which occurs after removal of the adenoids or when the soft palate is immobilized for a long time. In this case, the sound pronunciation of vowels is impaired.

In closed rhinolalia, the nasolacrimal valve remains closed due to organic damage to the nasal cavity or dysfunction of the palatal-pharyngeal junction. Physiological nasal resonance is reduced. When pronouncing the sounds "M", "N" and their soft variants, the exhaled air stream enters the oral cavity, not the nose, and the sounds begin to sound like the oral sounds "B", "D". The differentiation of sounds according to the nasal-non-nasal principle disappears, which is reflected in the intelligibility of speech. Closed rhinolalia is divided into: anterior closed, posterior closed, functional. Anterior closed rhinolalia is characterized by blockage of the nasal cavities in chronic rhinitis, deviated nasal septum, polyps and tumors of the nasal cavity. Posterior closed rhinolalia occurs as a result of a decrease in the nasopharyngeal cavity due to adenoid tumors, in rare cases, nasopharyngeal polyps, and fusion of the posterior wall of the larynx with the soft palate.

Mixed rhinolalia occurs when the nasal openings are blocked due to insufficient palatal-pharyngeal communication of functional and organic origin. The state of sound pronunciation is characterized by low nasal resonance, especially when nasal sounds are heard, and the appearance of a nasal tint of oral sounds. This may be due to: adenoid tumors; a shortened soft palate; tumors of the nasal cavity; the presence of a submucosal cleft of the soft palate.

There are several author's approaches to eliminating open rhinolalia, among which are the works of famous scientists G. Gutsman and M. Yu. Khvatsev. Correction of open rhinolalia is divided into two stages: preoperative and postoperative. A.G. Ippolitova was one of the first to propose training children in the preoperative period. Her method is based on focusing the child's attention on the articulation, not the phoneme. Speech therapist N.I. Serebrova and doctor L.V. Dmitriev first developed an effective method based on breathing through the mouth and nose after an X-ray examination. T.N. Vorontsova suggests developing it in the postoperative period, which consists in singing sounds. Modern speech therapy relies on the step-by-step methodology of I.I. Yermakova in the preoperative and postoperative periods: Corrective work in the postoperative period. Stage 1 begins with the stage of putting vowels and eliminating excessive nasal resonance. If the child received speech therapy assistance before the operation, this period will be short (2-3 weeks). If assistance was not provided, this period will last 3-6 months. During this period, the

uvula can stretch to its maximum, so you should not miss the time. After the operation, prolonged silence is inevitable, which is why speech deteriorates. The soft palate is swollen, the child feels pain, avoids pronouncing sounds correctly, speaks through his nose. The operated palate should be included in phonation as soon as possible, which will facilitate the acquisition of the oral resonance skills of vowels. The operated organ for the child receives targeted instruction. Speech therapy should be started on the second day after obturation or 15-20 days after uranoplasty. After half a year, when the scarring process is complete, the work becomes useless. With the help of special exercises and massage, the edge of the soft palate can be stretched by 1-3 cm. Massage is performed using a probe, spatula or suction. The instrument is carefully moved back and forth along the hard palate, without touching the sutures, while the muscles of the larynx and soft palate reflexively contract. When pronouncing the sound "A", the soft palate is lightly pressed with a probe or finger (activation of the vomiting reflex). The child performs self-massage, stroking his gums with his tongue. Massage is carried out at least 2 times a day for a year, two hours before meals or after meals. Gymnastics is also performed for the palate: swallowing in small portions, coughing with the tongue out, yawning with the mouth closed and open. Articulatory gymnastics includes stretching the lips (in dynamics "Smile" - "Tube"), additionally - vibrating the lips ("we stop trrrrr", "horse"), for the cheeks - pulling the cheeks into the oral cavity. The sound exercises begin in the same order, with the vowels "A", "E". At the same stage, work is also carried out on breathing. Inhalation-exhalation with the nose, inhalation-exhalation with the mouth, inhalation with the nose, exhalation with the mouth. Stage 2 - the stage of correcting sound pronunciation. We start with vowels. The order of placement of consonants is as follows: first "P", "F", then "P", "F", "V", "T", "K", "X", "S", "G", "L", "B", "D", "Z", "Sh", "R" The last are the most complex, combined and strongly affecting resonance sounds: "Ch", "S" (or differentiated sounds, for example, S and Sh). At the same time, the prosodic side of speech is developed in parallel. Stage 3 - automation of new skills. The characteristics of the work depend on the age of the child. In parallel, the lexical-grammatical structure of speech is developed. Breathing work is not stopped, air balloons, water bowls, sand, and toys are used. Classes are held in the form of games, sounds are reinforced with short poems. Thus, practice shows that the active participation of family members is an important factor in the effective elimination of rhinolalia. Their patient, supportive approach to the patient ensures the success of speech therapy. The active participation of family members in the therapeutic process increases the

child's speech activity, creates the basis for conducting classes outside of classes, and as a result, the recovery process is accelerated.

CONCLUSION

In conclusion, in the treatment of speech disorders such as rhinolalia, along with modern medical approaches (surgery), speech therapy and psychological assistance should be used together. In this case, the positive nature of the family and social environment increases the effectiveness of the treatment process. Such a comprehensive approach improves not only the patient's speech, but also their psychological state and social adaptation.

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