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HEARING AND SPEECH IN CHILDREN WITH COCHLEAR IMPLANTS DEVELOPMENT

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Annotation
The author covers important problems of medical, psychological and pedagogical rehabilitation of children, which had undergone such surgery. The necessity of cooperation between doctors, psychologists, deaf-and-dumb pedagogues and the child's family in order to achieve a successful restoration of the lost skills or to form new ones: perception of sound, speaking skills, social adoptation is being stressed.

Annotatsiya
Muallif ushbu operatsiyani o'tkazgan bolalarni tibbiy, psixologik va pedagogik reabilitatsiya qilishning muhim muammolarini ta'kidlaydi. Ilgari yo'qolgan hissiy qobiliyatlarni muvaffaqiyatli tiklash yoki yangilarini shakllantirish uchun shifokorlar, psixologlar, kar o'qituvchilar va bolaning oilasi o'rtasida hamkorlik zarurligi ta'kidlangan.

Аннтотация
Автор освещает важные проблемы медико-психолого-педагогической реабилитации детей, которым была выполнена данная операция. Подчеркивается необходимость сотрудничества врачей, психологов, сурдопедагогов и семьи ребенка для успешного восстановления утраченных ранее имеющихся сенсорных возможностей или формирования новых: восприятия звука, развития речи, социальной адаптации.

Keywords: cochlear implantation, rehabilitation, medical, psychological and pedagogical assistance, adaptation, hearing restoration, children with developmental disabilities.

R. M. According to boskis, one of the important criteria for the role of hearing in the general development of children is independence in the acquisition of speech. In children with normal hearing, this process is carried out on its own, in children with hearing impairment - as a result of special training, since in the latter case it is impossible to independently use residual hearing to increase vocabulary, master

speech. Inadequate speech development also prevents the perception of speech through auditory perception. Therefore, insufficient development of speech or its absence prevents education, since the assimilation of educational content is closely related to the understanding of verbal words and speech. Speech, which is not available to children without special training, affects their mental, moral development, the assimilation of various types of activities (cognitive, labor, play, artistic, etc.). Therefore, the inability to understand speech due to its development and underdevelopment affects the success of Education.

In recent years, cochlear implantation has been increasingly being introduced worldwide as a highly effective method of rehabilitation for deaf children and adults (I. V. Korolyeva, O. V. Zontova, G. A. Tavartkiladze, E. I. Mironova, N. V. Tarasova, A. A. Belyakova). Ideally, the final result and goal of cochlear implantation of a young deaf child with the help of a cochlear implant, he learns to hear and understand the speech of others, to speak himself, to communicate and to know the world around him, and therefore develops as a normal hearing child. The effectiveness of implantation is determined by many factors, in particular, the age of complete hearing loss, its duration, the ability to learn and the intellectual abilities of the child. These factors can affect both individually and in combination with each other.

In this regard, the main purpose of the rehabilitation of young children with cochlear implants is to teach the child to use this experience to perceive, distinguish, recognize and recognize the surrounding sounds, understand their meaning and develop speech. For this, the postoperative rehabilitation of preschool children includes the following components:

1. Adjusting the speech processor of the cochlear implant.
2. Hearing perception and speech development.
3. General development of the child (nonverbalintellect, motorics, memory, attention, etc.).
4. Psychological assistance to the child and his relatives.

A child with a cochlear implant begins to hear different sounds unexpectedly and almost simultaneously, but at first they do not give it meaning and merge into a single stream of noise. The child can quickly learn to associate the sound of individual sounds and words with objects or actions, but cannot understand speech, since his memory contains very little information about the meaning of words, the rules for changing them and their inclusion in a sentence. Characteristically, it is often possible for us to observe a sharp increase in vocal activity if the child does not have a reaction to sounds. This is often a reliable indicator that the baby begins to hear-he begins to hear himself and, as usual, plays with his voice like a newborn. After the cochlear

implant processor is turned on, work aimed at attracting the child's attention from parents and arousing his interest in the surrounding sounds takes 2-3 months, and only then such a child begins to respond to various sounds on his own, recognizing some of them. From this point on, the development of speech of a child with a cochlear implant is different from that of a child with a hearing aid. In a child with cochlear implants, a rapid spontaneous development of hearing loss is formed, followed by speech that is not characteristic of children with hearing aids and the ability to understand their own speech. With the spontaneous development of speech, we understand the situation when we listen to the speech of others and assimilate them on our own, in a situation when the child is not purposefully taught any words or grammatical rules. Experts are well aware of how much time it takes for a deaf child to remember a word or sound in class, but the main difficulty is to recognize/hear them in a real situation [2].

When implanting a child after 2 years of age, the process of understanding speech and the formation of a child's speech begins - after 8-12 months. This process also proceeds slowly and depends on the child's residual hearing and pronunciation skills after implantation, the age of implantation, the participation of parents in the development of the child, the presence of defects that accompany it, among others. [3].

If the implantation is carried out after 2 years of age, then after using the implant for a year, one of the most characteristic features of speech perception in many children is the underdevelopment of long-term memory. The child quickly learns a new word in training, but can then repeat it, but he cannot show a picture or toy belonging to the word, which he does not use in his speech. This is due to the manifestation of the disproportionate development of auditory analysis of sound and speech as sound signals in children with cochlear implants and the slower formation of processes for analyzing speech as a linguistic signal.

Children with cochlear implants quickly learn to imitate individual speech sounds, words, and even short phrases during the training process. In all tasks for the development of auditory perception, there should be two stages: first, signals are presented to the child through hearing and vision, so that he sees movements that cause sound, then perceives them only through hearing.

With the systematic work of teachers and parents, hearing loss in children with cochlear implants develops much faster than in the usual hearing apparatus. The rapid development of auditory perception contrasts sharply with the slow development of children's ability to form stable connections between the sound image

of a word and the object/phenomenon it defines (although the child knows these words, he can repeat different words without knowing their meaning) [].

In order for a child to understand speech, it is not enough to teach him to identify, distinguish, identify and recognize speech signals. In order for a child to master the language system, that is, to sufficiently use language tools in the process of communication, it is necessary to master the meaning of the set of words, their sound composition, the rules for changing and combining words in a sentence. The purpose of the training carried out at the initial stage is to master the meaning of words, expand the semantic field, collect an impressive dictionary. After turning on the speech processor, this work continues with the active involvement of the hearing analyzer.

The leading role in the collection of vocabulary belongs to parents, and at first it is important to explain to them the importance of this work in order to develop an understanding of speech.

For children with a congenital malformation of hearing function, receiving adequate medical and psychologygo-pedagogical support from the first months of life, with positive experience in the use of hearing aids and good knowledge of expressive speech until the period of cochlear implantation. it is necessary to ensure the maximum dependence of the surrounding world on auditory perception and to reconstruct interactions with the auditory environment based on altered auditory abilities, that is, to switch from a predominantly auditory-visual sensation to full-fledged hearing.

In addition to the conditional motor reaction in a child, it is necessary to develop the following skills:

• determining whether there is a sound or not (yes, no);

* determination of the number of sounds (one or more);

• determination of the characteristics of sounds: intensity (loud-silent), duration (long-short), continuity (continuous-intermittent), Height(High-Low);

• acting on the signal (reacting to its beginning and duration - performing the action of the game when the sound is heard).

The development of all hearing and speech of the operated child should be included in everyday life, carried out against the background of its general development, and ensure its connection with others. Adults should take advantage of the child's emerging emotional capabilities when conducting general developmental games and activities aimed at educating a preschool child in social, physical, cognitive development, playing it, drawing, modeling, design.The activity of the child in the

environment and the action of playing with objects develops memory, thinking, imagination and, in general, helps to develop ideas about the world around him.

In the initial period, it is important to pay special attention to the formation of his need for oral communication, as well as the assimilation of understanding and independent use of speech.

Like a child whose hearing is normal, at this stage, parents do not always understand their child correctly, and natural gestures come to the rescue, the child actively uses gestures along with speech.Every day, the volume of understood and used speech expands, the first simple phrases appear, the sound composition of the words included in them is gradually improved under auditory control, but it can still be incorrect. Parents believe that the child's understanding of speech, which is not yet fully understandable, provides clarity of the situation, intonation and the use of natural gestures.

The full-fledged passage of the initial period positively affects the general and auditory-speech development of the child, his communication with loved ones, and helps to harmonize his relationship with the world around him.

Let us dwell on important points that are the basis for the successful rehabilitation of children with early implants. The initial task of rehabilitation is the formation of natural speech behavior in parents. Adults need to understand several important rules:

- communicate and play with this child as if your hearing is playing with your child who is in the norm;
- speak naturally without clear (exaggerated) articulation and without increasing the volume of your voice;
- let the child manifest himself and his desires;

inform all members of your family and loved ones about the right speech behavior with your child.

The time and content of the initial period depend on the following factors:

• hearing loss time;

* overall level of development;

In the initial period of rehabilitation, the implanted child needs individual lessons with specialists and daily routine work of parents on his upbringing, development. Only after the end of the initial period, evaluating the capabilities of each specific child, can we recommend him an adequate form of further education and training.

Cochlear implantation is the most important means of socializing deaf children at the present stage. The ability to communicate with children whose hearing is normal, to

socialize in society is undoubtedly a result that all implanted children must achieve in conditions of a comfortable speech environment, both in a preschool and in a family.

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