THE MAIN SIGNS OF DYSARTHRIA AS A SPEECH DISORDER

Andijan State Pedagogical Institute, Faculty of Preschool Education and Special Pedagogy
Special Pedagogy: Speech Therapy, Group 301 student
Iminjonova Mokhichehra Alimardon kizi
iminjonovamoxichexra@gmail.com

Abstract: This article examines the causes of dysarthria, its pathophysiological basis, and the main clinical signs affecting the speech system from a scientific and theoretical perspective. Dysarthria is a complex speech disorder caused by damage to the central and peripheral nervous systems, characterized by profound changes in articulation, phonation, breathing, prosody, resonance, and diction. The article presents a comparative analysis of differential features characteristic of spastic, flaccid, ataxic, hyperkinetic, and mixed forms of dysarthria, as well as the main speech therapy and neurological diagnostic criteria used in its diagnosis. The impact of dysarthria on speech development, phonetic and lexical-grammatical processes is also explored in detail. The research findings have practical significance for speech therapists, special educators, and neurologists working with dysarthria.

Keywords: Dysarthria; speech impairment; articulation; phonation; breathing; prosody; resonance; diction; spastic dysarthria; flaccid dysarthria; ataxic dysarthria; hyperkinetic dysarthria; mixed form; neurological signs; speech therapy diagnostics; speech apparatus; motor control; central nervous system; peripheral nervous system; special education.

Dysarthria is a pronunciation disorder caused by impaired innervation of the speech apparatus muscles as a result of damage to the central and peripheral nervous systems. "Dys" means impairment, while "arthron" means articulation, expressing a deficiency in the coordination of speech movements. Dysarthria can develop as a result of various etiological factors - perinatal encephalopathies, cerebral palsy, strokes, degenerative diseases, brain injuries, genetic syndromes, and neurometabolic disorders.

In the field of speech therapy, dysarthria is considered the most severe form of speech impairment, as it affects not only pronunciation but also all speech components

such as breathing, voice, prosody, rhythm, timbre, and resonance. This article extensively covers the general symptoms of dysarthria, differential signs specific to its forms, pathophysiology, and clinical indicators important in speech therapy diagnosis. Dysarthria is characterized by disorders in three main components of the speech mechanism:

Damage to the central nervous system - injury to the frontal, parietal, occipital, temporal lobes of the brain, cerebellum, basal nuclei, and motor centers in the spinal cord leads to dysfunction of the speech muscles. Specifically: if the pyramidal tract (corticospinal tract) is damaged, paresis, spasticity, and rigidity develop. If the extrapyramidal system is affected, hyperkinesis, tremor, and dystonia are observed. If cerebellar pathways are damaged, coordination is disrupted and speech becomes scanning.

Damage to the peripheral nervous system - paralysis of the cranial nerves (V, VII, IX, X, XII) that innervate the muscles of the face, tongue, lips, soft palate, and pharynx results in a sharp decrease in articulation ability. Muscle hypertonicity or hypotonicity, dystonia, atrophy, and paresis limit the range of speech movements.

Although symptoms differ depending on the type of dysarthria, there are dozens of symptoms common to all forms.

1. The movements of the articulatory apparatus become sluggish, slow, indistinct, and limited. Typically: raising the tip of the tongue is difficult, the lips do not close sufficiently, lateral tongue movements are weak, and articulatory positions are not maintained for long. As a result, defects are strongly manifested in consonant sounds, especially in sounds requiring differential articulation such as r, s, sh, l, z, ch, j.

2. Sound production is limited by weakness or excessive tone of the laryngeal muscles. Signs: difficulty initiating vocalization, voice is low, hoarse or raspy, sometimes intermittent, phonation is weak and short.

3. Speech breath differs from physiological breath. The main problems of speech breathing in dysarthria: small breath volume, frequent pauses during speech, weakness of expiratory breath control, additional breathing during speech.

4. Prosodic disturbances are among the most noticeable signs of dysarthria: monotonous intonation, disrupted rhythm, speech tempo is either slow or very fast, phrasal stress is not maintained.

5. As a result of paresis or hypotonia of the palatal muscles: hypernasal resonance (voice through the nose), hyponasal resonance (obstruction of the nasal passages) is observed.

In severe forms of dysarthria, the patient's speech is almost incomprehensible to those around them. Sometimes the patient has speech only at the level of producing individual sounds. The main neurological signs characteristic of dysarthria are as follows:

- Changes in muscle tone (hypertonia, hypotonia, dystonia)
- Paresis and paralysis
- Coordination disorder
- Pathological increase or decrease of reflexes,
- Tremor, hyperkinesis.

Dysarthria is a complex speech disorder resulting from impaired motor control of the speech apparatus, significantly affecting articulation, breathing, phonation, prosody, resonance, rhythm, and overall speech intelligibility. The symptoms of dysarthria can manifest in various forms, but the general symptoms serve as the main diagnostic criterion in speech therapy assessment.

Early detection of dysarthria, accurate diagnosis, and a systematic corrective speech therapy approach are crucial for the restoration of speech functions.

References

1. Karimova, V.A. (2021). Fundamentals of Special Pedagogy. Tashkent: Uzbekistan Pedagogical Publishing House.

2. UNESCO. (2020). Inclusive Education: Guidelines and Global Practices. Paris: United Nations Educational, Scientific and Cultural Organization.

3. Akhmedova, D.R. (2022). "The Role of ICT Tools in Modern Special Education." Journal of Pedagogical Innovations, No. 4, 45-52.

4. Law of the Republic of Uzbekistan. (2021). "On Social Protection of Persons with Disabilities." National Database of Legal Documents.

5. Vygotsky, L.S. (1978). Mind in Society: The Development of Higher Psychological Processes. Cambridge, MA: Harvard University Press.

6. Norkulova, M. (2023). "The Use of Multisensory Methods in Inclusive Education." Special Pedagogy and Psychology, No. 2, 30-36.

7. Tashkent State Pedagogical University (2022). Inclusive Education Methodological Guide. Tashkent: TSPU Publishing House.

8. M.Y. Ayupova. "Speech Therapy." Tashkent. 2019.

9. L.R. Muminova, M.Y. Ayupova. "Technology for Eliminating Dysarthria Speech Deficiency in Children." Tashkent. 2017.

10. Zhurakhuzhaev, M. Kh. (2022). ORGANIZING THE EDUCATIONAL PROCESS FOR CHILDREN WITH DISABILITIES IN INDIVIDUAL HOME EDUCATION. *PEDAGOGS journal*, *1* (1), 295-298.

11. Khalilkhoja, D. M. (2022, March). PROBLEMS AND SOLUTIONS OF HOME INDIVIDUAL EDUCATORS. In *Conference Zone* (pp. 315-318).

12. Jurahojaev, M. K. O. (2022). MECHANISMS TO INCREASE THE EFFICIENCY OF INDIVIDUAL HOME EDUCATION FOR CHILDREN WITH DISABILITIES. *Mental Enlightenment Scientific-Methodological Journal*, *2022* (3), 171-180.

13. Jurakhuzhaev, M. Kh. Mechanisms for Increasing the Effectiveness of Individual Home Education for Children with Disabilities: Dissertation for Doctor of Philosophy (PhD) in Pedagogical Sciences. *Jizzakh-2023.-36 pages.*

14. Jurakhuzhaev, M. Kh. (2022). Portrait of a home-based individual education teacher / Materials of the III International Conference "21st Century Skills in Language Teaching and Learning."