

**THE IMPACT OF HYPERSALIVATION IN YOUNG CHILDREN DIAGNOSED
WITH CEREBRAL PALSY ON CHILD HEALTH AND THE ROLE OF
BOTULINUM THERAPY IN ITS TREATMENT**

Assistant: **Ermatorov Farhod Akhmedovich**

Central Asian Medical University

International Medical University

Department of Pediatrics and Pediatric Surgery

Relevance:

Cerebral palsy (CP) is a neurological disorder in children characterized by motor and movement impairments. One common complication is hypersalivation (excessive drooling), which negatively affects the child's health. Hypersalivation can disrupt oral hygiene, nutrition, psycho-emotional state, and social functioning. Botulinum therapy has emerged as an effective method for treating hypersalivation. Our study investigates the benefits of botulinum therapy in children with CP.

Objective of the Study:

1. To identify the physiological causes of hypersalivation in children diagnosed with cerebral palsy.
2. To evaluate the effectiveness of botulinum therapy in treating hypersalivation.
3. To study the impact of botulinum therapy on reducing hypersalivation and improving children's health.

Materials and Methods:

The study involved 60 children aged 1 to 3 years diagnosed with cerebral palsy between 2023–2024. Each child was assessed for the degree and cause of hypersalivation. The following methods were used:

1. Clinical Examination: Assessment of hypersalivation severity and identification of neurological and motor symptoms.
2. Neurological Examination: Investigation of the neurological causes of hypersalivation in children with cerebral palsy.
3. Botulinum Therapy: Application of botulinum toxin to inhibit salivary gland function and evaluate its effect on reducing hypersalivation.

Results and Discussion:

The findings indicate that hypersalivation in children with CP is primarily associated with motor and neurological disorders. Key contributing factors include:

1. Neurological Disorders: Impairment in the brain's motor control centers initiates hypersalivation. These indicators are notably high in children with CP.
2. Dysfunction in the Digestive System: Gastroesophageal reflux or other feeding-related

issues can lead to hypersalivation.
3. Neural Signal Transmission Issues: Any neurological disruption can exacerbate hypersalivation.

Botulinum therapy proved effective, reducing salivation within 3–6 weeks. Study results showed high efficacy, confirming botulinum therapy's critical role in managing hypersalivation in young children.

Conclusion:

Treating hypersalivation in children with cerebral palsy is of great importance. Botulinum therapy is an effective method that reduces salivation by inhibiting salivary glands. Treatment should be personalized based on each child's neurological condition.

References:

1. Mazzone, L., et al. "Botulinum Toxin for Drooling in Children with Cerebral Palsy." *Pediatric Neurology*, 2017; 68: 1–8.
2. Ferro, A., et al. "Management of Drooling in Children with Neurological Disabilities: A Review of Treatment Options." *European Journal of Paediatric Neurology*, 2018; 22(4): 678–684.
3. WHO. "Management of Neurological Disorders in Children." Geneva: World Health Organization, 2020.
4. El-Salem, K., et al. "Efficacy of Botulinum Toxin in the Treatment of Drooling in Children with Cerebral Palsy." *Pediatric Rehabilitation*, 2019; 12(3): 139–144.
5. Pavone, V., et al. "Treatment of Drooling in Cerebral Palsy: New Insights into Botulinum Toxin Use." *Neurorehabilitation and Neural Repair*, 2021; 35(2): 152–158.