

# Role of Basti on Gut Microbiome in Cerebral Palsy Children

Dr. Sindhu M. A.

Associate Professor, Department of Kaumarabhritya, Yenepoya Ayurveda Medical College and Hospital Mangalore  
Email: [sindhum\[at\]yenepoya.edu.in](mailto:sindhum[at]yenepoya.edu.in)

**Abstract:** Gut micro biomes are the trillions of micro organisms which are present in the large intestine especially in the cecum. They are extremely important to maintain gut health and prevent gut diseases. Grahani is the condition where the gut health is altered and it can be prevented or controlled by improving the gut micro biome. Children with cerebral palsy are at a heightened risk of developing certain digestive issues, including upset stomach, vomiting, bloating, constipation and irritable bowel syndrome. Several studies proved that Basti in Cerebral palsy is one such treatment modality which has significant role in improving gut health along with other benefits.

**Keywords:** Basti, Gut micro biome, Grahani, Cerebral palsy and Gut health

## 1. Introduction

Cerebral palsy is a group of disorders that affect movement and muscle tone or posture. It's caused by damage that occurs to the immature, developing brain, most often before birth.

Signs and symptoms appear during infancy or preschool years. In general, cerebral palsy causes impaired movement associated with exaggerated reflexes, floppiness or spasticity of the limbs and trunk, unusual posture, involuntary movements, unsteady walking, or some combination of these. Cerebral Palsy causes structural abnormalities in both the central and peripheral nervous system that regulate involuntary body functions, such as blood flow, heartbeat, digestion and breathing. Those abnormalities make children with Cerebral Palsy prone to digestive problems that could interfere with their ability to digest food and absorb nutrients. Most children with Cerebral Palsy are at risk for secondary under nourishment due to feeding difficulties and oral motor dysfunction. Gut micro biomes are the trillions of micro organisms which are present in the large intestine especially in the cecum, which are extremely important to maintain gut health and prevent gut diseases and thereby improving immune system and other health aspects.

Grahani is the adhithana of Agni, it is called as Grahani as it holds the Ahara (food). Normally it holds up the food till it is digested and releases after ahara pachana (digestion of food), but when the Agni bala is reduced, Grahani releases the ingested food even in apakva avastha. This condition is termed as Grahani Roga. Gut health is maintained by healthy gut micro biomes grahani roga is the condition where the gut health is altered.

Children with cerebral palsy presenting with GIT disturbances can be considered as Grahani roga in them. The ardhha chikitsa which we do for Cerebral palsy is basti. This basti has action on agni and vatadi dosha's.

Basti is one such treatment which normalizes agni and thereby regulates gut micro biomes, cures and prevents grahani symptoms in cerebral palsy children along with other benefits.

## 2. Materials and Methods

Basti is one of the most powerful among panchakarma procedures. Ayurvedic scholars have unanimously praised the features of Basti. It is considered as ardhha chikitsa in Bala

Cerebral palsy in Ayurveda can be correlated with Shiromaramabhighataja vata vyadhi, where children are presenting with symptoms of vata vyadhi like sarvangha or ekanga vata along with GIT problems. Basti is one such treatment which is having action on Vata sthana and pitta sthana

It acts as nectar when administered judiciously. Basti when it is administered through rectum it reaches to pakwashaya, thereby balancing the vata dosha it normalizes agni and gut biomes and maintains gut health, and via gut brain axis it nurtures the brain and improves cognitive functions in cerebral palsy children.

In Cerebral palsy children the yavana basti are having promising benefits in terms of metabolism, improving cognitive functions as well as reducing the muscle spasticity. Mustadi yavana basti and madhutaika basti's are administered in the form of yoga basti which normalizes vata dosha and improves gut health and nurtures nervous system via gut barain axis.

## 3. Discussion and Conclusion

- Cerebral Palsy causes structural abnormalities in both the central and peripheral nervous system that regulate involuntary body functions, such as blood flow, heartbeat, digestion and breathing. Those abnormalities make children with Cerebral Palsy prone to digestive problems
- Basti is one such treatment modality which has significant role in improving gut micro biome and helps to improve gut health and controls grahani symptoms and improving cognitive as well as reduces the muscle spasticity in those children when administered judiciously.

## References

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