



A Clinical Case Study On Ayurvedic Management In Cerebral Palsy

¹Dr Tasneem Donur,

¹Associate Professor ,

¹Department of Kaumarbhritya

¹SNVV'S SGV Ayurvedic Medical College, Hospital and Research Centre, Bailhongal, India.

Abstract: Cerebral palsy (CP) is a disorder characterized by abnormal tone, posture and movement and clinically classified based on the predominant motor syndrome—spastic hemiplegia, spastic diplegia, spastic quadriplegia, and extrapyramidal or dyskinetic. The incidence of CP is 2–3 per 1,000 live births. Prematurity and low birthweight are important risk factors for CP; however, multiple other factors have been associated with an increased risk for CP, including maternal infections, and multiple gestation. In most cases of CP the initial injury to the brain occurs during early fetal brain development; intracerebral hemorrhage and periventricular leukomalacia are the main pathologic findings found in preterm infants who develop CP. The diagnosis of CP is primarily based on clinical findings. Early diagnosis is possible based on a combination of clinical history, use of standardized neuromotor assessment and findings on magnetic resonance imaging (MRI); however, in most clinical settings CP is more reliably recognized by 2 years of age. Because CP is associated with multiple associated and secondary medical conditions, its management requires a multidisciplinary team approach. Most children with CP grow up to be productive adults. Sahaja (Hereditary) Garbhaja (Congenital) and Jataja (Psychosomatic) types of diseases. Aim & Objectives: The aim of this study was to assess the efficacy of Ayurvedic interventions, including oral medications and Panchakarma procedures, in improving the condition of patient with spastic cerebral palsy who had previously shown no improvement with conventional treatments. Materials and methods: This case study Age of the patient – Sex of patient male Age of patient 3 y 6m, In Developmental history, No neck holding. Neonatal history: Term baby Meconium aspiration Weak cry HIE, Fever with convulsions after a week of discharge Treatment at various higher centres Complaints : Unable to stand on its own Drooling Unable to chew food. Patient was advised admission for 7 days and was treated with internal medications, During the treatment all the signs and symptoms of cerebral palsy reduced to a very high extend.

KEYWORDS– Shashtika Shalipinda Sweda, Abhyanga, Swarnaprashana.

INTRODUCTION

Cerebral palsy (CP) is the leading cause of childhood disability, significantly impacting functional abilities and developmental milestones which is a non-progressive neuromotor disorder originating in the brain. Besides motor dysfunction, often involves issues with sensation, perception, cognition, communication and behaviour. It is broadly classified into four categories: Spastic, Ataxic, Dyskinetic and Mixed types. Spastic CP is the most prevalent, accounting for 70% to 80% of all cases. Globally, the prevalence is approximately 2 per 1,000 live births. Although there is currently no definitive cure, various modern treatment approaches are being explored. These include autologous stem cell activation to enhance vascular and neural function, stem cell transplantation, immune system fortification, Botulinum toxin type a injections ^[1], intrathecal baclofen administration, selective dorsal rhizotomy, the use of orthotic devices like ankle-foot orthoses, hyperbaric oxygen therapy and techniques aimed at promoting neuroplasticity.

In Ayurveda, child healthcare is addressed through a specialized branch called Kaumarbhritya. While there is no direct correlation to CP in classical Ayurvedic texts, several conditions described in these texts bear similarities to it's symptoms. These include disorders like Phakka (Nutritional deficiencies), Pāṅgulya (Locomotor issues), Mūkatva (Speech impairments), Jaḍatva (Intellectual disabilities), Ekāṅgaroga (Monoplegia), Sarvāṅgaroga (Quadriplegia), Pakṣaghāta (hemiparesis) and Pakṣavadha (Hemiplegia), which are classified under Vātavyādhi (neurological disorders) ^[2]. Ayurvedic literature also highlights various prenatal and contributory factors affecting fetal health, such as irregularities in the Ritu (ovulation cycle), Kshetra (uterine environment), Ambu (Amniotic fluid and fetal nourishment) and Bīja (genetic material).

Neglecting the dietary and lifestyle guidelines for pregnant women (Dauhr̥dāvamanana), exposure to harmful substances Garbhopaghātakarabhāva) and improper prenatal care (Garbhīṇīparicaryā) are seen as potential contributors to fetal abnormalities, including conditions resembling CP. To address these challenges, an Ayurvedic therapeutic protocol has been developed, aiming to improve the quality of life for individuals with CP. This integrative approach focuses on optimizing neurodevelopment and overall health through time-tested Ayurvedic principles and modern insights.

CASE DETAILS:

Neonatal history:

- ☐ Term baby
- ☐ Meconium aspiration
- ☐ Weak cry
- ☐ HIE
- ☐ Fever with convulsions after a week of discharge
- ☐ Treatment at various higher centres

Complaints

- Unable to stand on its own
- Drooling
- Unable to talk
- Weak neck holding
- Unable to chew food

Findings :

The patient detailed history was noted.

On Examination:

Gross Motor- Difficulty with walking, may use assistive devices.

Fine Motor- Challenges with grasping and manipulating objects.

Muscle Tone- Hypertonic tone observed.

Reflexes- deep tendon reflexes assessed; presence of primitive reflexes.

Delay in cognitive milestones compared to peers.

No verbal communication.

TREATMENT GIVEN:

1st sitting

Sr.Abhyanga with ksheerabala taila 3,4

Shashtika shali pinda sweda (SSPS) adding egg white

Basti – Ksheerabala taila

Shamana aushadhi

Vacha Churna with honey

Lashunadi ghrita

2nd sitting

Sr.Abhyanga with Bala Ashwagandhadi taila

Shashtika shali pinda sweda (SSPS) adding egg white

Basti - Samvardhana Ghrita

Shamanaushadhi

Brahmi ghrita

Swarnapraashana

3rd sitting

Sr.Abhyanga with Ashwagandha bala lakshadi taila

Shashtika shali pinda sweda (SSPS)

Basti – Samvardhana Ghrita

Shamanaushadhi

Kalyanaka Ghrita

Swarnapraashana

RESULTS AND DISCUSSION

Signs and symptom	B.T.	A.T.
Muscle-Tone	Hypertonicity	Improvement
Sitting	Unable	Easily sit
Standing	Unable	Without support for 2-3 minutes
Neck holding	Weak	Attained
Walking	Unable	Without support for 30 sec.to 1 minutes
Forward bending	Stiff	For 120 degree
Dropping of foot	Spastic	Improvement
Appetite	<i>Alpa</i>	<i>Samayak</i> (Normal)
Stool	<i>Vibandha</i>	<i>Samayak</i> (Normal)
Jivha	<i>Sama</i>	<i>Nirama</i>
Speech	<i>Absent</i>	<i>Absent</i>
Chewing	<i>Unable</i>	<i>Unable</i>

In this case there was an marked improvement in both motor and developmental factors and patient shown improvement in GIT and metabolic symptoms.

The use of Ksheerbala Taila in Abhyanga, which is Vatakaphahara and relieves Stambha (stiffness), further supports this process [6]. As part of Swedana, the application of Shashtikashali Pinda Sweda provides Brimhana and Dhatu-Poshana [7]. This procedure is especially effective in mitigating vāta and reducing spasms. The improvement in spasticity, as indicated by the spasm scale, can be attributed to the Shaman of Vata Gunas, such as Chala (mobility) and Shita (coldness).

The mode of action of egg white involves a combination of its bioactive proteins and peptides, which exhibit various biological activities. These activities include:

Antioxidative: Egg white proteins have antioxidant properties that help protect cells from damage caused by free radicals. Antimicrobial: The proteins in egg white, such as ovotransferrin and lysozyme, are known for their antibacterial properties, which can inhibit the growth of bacteria. Antiviral: Egg white proteins may have antiviral effects, contributing to the egg's protective role against viral infections. Antitumor: Some studies suggest that egg white proteins may have antitumor properties, although more research is needed to confirm this. Immunomodulatory: Egg white proteins can modulate the immune response, potentially benefiting health in various ways. Angiotensin-converting enzyme-inhibitory (ACEi): Egg white proteins may inhibit ACEi, which is important for blood pressure regulation.

The mode of action of Balashwagandha Thaila involves a combination of its active ingredients, which work synergistically to provide therapeutic benefits. :Bala (*Sida cordifolia*): Contains alkaloids like ephedrine, which mildly stimulate circulation. It also has a sweet and slightly bitter taste, heating properties, and is Vata pacifying. Swagandha (*Cymbopogon martinii*): Rich in citral and geraniol, it offers anti-inflammatory properties. It has a bitter, pungent taste, cooling properties, and is calming. Dashamoola components: A collective potency of ten roots (*Bilva*, *Agnimantha*, *Shyonaka*, etc.) provides deep penetration, warming virya, and analgesic effects.

Sesame oil (*Tila taila*): Acts as a nourishing medium that enhances absorption and lubrication, bringing the herbs deep into tissues. These components work together to enhance circulation, open srotas, kindle mild agni locally, and break down ama that accumulates in joints. This dynamic pharmacodynamics is key to Balashwagandha Thaila's effectiveness in supporting musculoskeletal health and overall well-being.

1. Supports Growth and Development: Helps manage developmental delays by nourishing tissues and promoting muscle strength.

2. Enhances Neurological Functions: Acts as a neuroprotective formulation that supports brain health and cognitive functions.
3. Restores Energy and Vitality: Beneficial for conditions like Shosha (emaciation) and Dhatukshaya (tissue depletion) by replenishing lost nutrients.
4. Aids in Speech and Motor Development: Particularly useful for individuals with speech disorders and motor impairments

CONCLUSION:

This case demonstrates the potential of integrative Ayurvedic therapy in managing spastic CP. By addressing vitiated Vata and Kapha Doshas through a combination of localized and systemic treatments, significant functional and developmental improvements were achieved. The findings highlight the relevance of Ayurvedic principles in complementing modern treatment modalities, offering a holistic and individualized approach to cerebral palsy management.

REFERENCES

1. Polak F, Morton R, Ward C, Wallace WA, Doderlein L, Siebel A. Double Blind comparison study of two doses of botulinum toxin A injected into calf muscles in children with hemiplegic cerebral palsy. *Dev Med Child Neurol.* 2002;44:551-555. DOI:10.1017/s0012162201002547.
2. Rathia S, Kori VK, Rajagopala S. A Clinical Study to assess the effect of samvardhana ghrita and yoga basti in cerebral palsy. *Pharma Science Monitor.* 2015;6(4):108-117.
3. Gupta K, Mamidi P. Some Efficacious Ayurvedic Panchkarma Procedures in Children with Cerebral Palsy. *Int. J Complement Alt Med.* 2018;11(1):00344.
4. Choudhary KR. Recent advances in Ayurvedic Management of cerebral palsy affected children. *Int. J Res Ayurveda Pharm.* 2014;5(6):642-647.
5. Kashyapa, Khilastan Chapter-8, verse 5 In pt. Hemraj Sharma (Editor). *Kashyapa Samhita Vridhajeevaktantra*, Reprint 2004 (9th ed.) edition, Varanasi: Chaukhambha Sanskrit Publication; 2004. P. 277.
6. Charaka Samhita Sutrasthana, 13/52 by Vaidya Samrata Sri Satya Narayana Shastri, Dr. Gorakhnath Chaturvedi Part-2, Chaukhambha, Bharti Academy, Varanasi 2001.
7. Charaka Samhita Sutrasthana 22/4, 11, 25/40 by Vaidya Samrata Sri Satya Narayana Sastri Padmabhushana with pt. Kasinath Shastri, Dr. Gorakhnath Chaturvedi Part-2, Chaukhambha, Bharti Academy, Varanasi, 2001.
8. Kashyapa Samhita Khilsthana 8/5, k.khil.27/47, by Ayurveda Alankar Sri Satyapala Bhisagcharya, Chaukhambha Sanskrit Sansthan, Varanasi, 2004.