

ROLE OF SHASHTIKA SHALI PINDA SWEDANA ON CEREBRAL PALSY IN CHILDREN

Dr. Sahil Kumar* and Dr. Minakshi

¹P.G. Scholar, P. G. Department of Kaumarbhritya, Rajiv Gandhi Government Post Graduate Ayurvedic College and Hospital, Paprola.

²Professor P.G. Department of Kaumarbhritya, Rajiv Gandhi Government Post Graduate Ayurvedic College and Hospital, Paprola.

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*Corresponding Author

Dr. Sahil Kumar

P.G. Scholar, P. G.

Department of

Kaumarbhritya, Rajiv

Gandhi Government Post

Graduate Ayurvedic College

and Hospital, Paprola.

ABSTRACT

Childhood period is very crucial period of life. Disabled children are a major worry for both families and society. Cerebral Palsy (CP) is the largest cause of chronic disability in children, separating them socially. According to WHO approximation, in India estimated incidence of Cerebral Palsy is around 3 per 1000 live births. CP can result from intrauterine diseases, intrapartum problems, and postnatal issues, particularly in preterm newborns. CP develops from an intrauterine state and an intrapartum or postnatal injury. *Swedana* (fomentation) is the process of producing sweat, or perspiration, in the body using various means. *Shashtika Shali Pinda Swedana* is a method of inducing perspiration by heating a bolus of special rice (*Shashtika*) in milk and processing it with herbal decoction. CP develops from an intrauterine state and an intrapartum or postnatal injury. This falls under the categories of *Agni Sweda* and *Snigdha Sweda*. A *pinda* (bolus) of *Shashtika Shali* (60-day-old rice) prepared in milk with

herbal decoction is tied and applied to affected areas to provide heat, nutrition, and strength to joints, muscles, or body parts. *Shashtika Shali Pinda Swedana* has been reported to be useful in treating a variety of CP symptoms.

KEYWORDS: Cerebral Palsy, *Swedana*, *Shashtika Shali Pinda Swedana*, *Agni Sweda*, *Snigdha Sweda*.

INTRODUCTION

Cerebral Palsy (CP) is the most common motor disability in childhood.^[1] Cerebral Palsy (CP) is a neurodevelopmental illness defined by impaired muscle tone, mobility, and motor skills that are caused by brain injury. CP is caused by damage to or abnormalities inside the developing brain that disrupt the brain's ability to control movement and maintain posture and balance. The term Cerebral refers to the brain; Palsy refers to the loss or impairment of motor function. In some cases, the areas of the brain involved in muscle movement do not develop as expected during fetal growth. In others, the damage is a result of injury to the brain either before, during, or after birth. In either case, the damage is not reversible and the disabilities that result are permanent. CP refers to a variety of clinical conditions that cause permanent mobility and postural issues. This condition causes aberrant muscular tone, posture, and mobility, limiting activity for the affected individual. CP can cause movement difficulties, sensory, cognitive, communicative, and behavioral abnormalities, as well as seizures and secondary musculoskeletal problems.^[2] According to the Australian Cerebral Palsy Register from 1993 to 2006, the overall prevalence of Cerebral Palsy was 2.1 per 1,000 live births. Multiples had a higher prevalence (7 per 1,000 live births) and extremely low birth weight neonates (50 per 1,000 live births).^[3] Cerebral Palsy can be caused by any incident affecting the growing brain of a fetus or neonate. Risk factors for CP include congenital abnormalities, fetal growth restriction, multiple gestations, fetal and neonatal infection, birth asphyxia, premature delivery, untreated maternal hypothyroidism, perinatal stroke, and thrombophilia.^[4-5] Cerebral Palsy affects the messages sent between the brain and muscles in the body. There are three types of cerebral Palsy:

1. Spastic
2. Athetoid (Or dyskinetic)
3. Ataxic

These three classifications typically refer to injured or impaired parts of the brain. Cerebral Palsy affects individuals differently, and some may experience multiple types of symptoms. Physiotherapy is widely recognized as a treatment for rehabilitation. Due to the high cost of available therapies, low-income families often accept their child's locomotor handicap without attempting to correct it.^[8]

Swedana is the next important & essential *Purvakarma* after *Snehana* in *Panchkarma*.^[9] It is the prime modality of treatment for numbers of disorders especially *Vata* & *Kapha*

predominant disease.^[10] Acharya Charak has mentioned that *Swedana* therapy is best for the treatment of vitiated *Vata* & *Kapha* dominant diseases.^[11] *Swedana* is done to liquefy the vitiated dosha & directs those towards *Koshtha* which are spread throughout the body. As a result, doshas are made easy to expel with the help of *Pradhana Karma* such as *Vaman*, *Virechana* & *Basti*. “स्तम्भगौरवशीतघ्नं स्वेदनं स्वेदकारकम्” this citation is given by Acharya Charak for the *Swedana* which means to palliate the stiffness (*Stambha*), relieve the sense of heaviness (*Guruta*) & cures feeling of cold (*Sheeta*) is called *Swedana*.^[12]

Swedana treatment involves inducing sweat. *Swedana* is a technique that removes body stiffness, heaviness, and coldness.^[13] It liquefies and directs vitiated Doshas towards *Koshtha*. *Swedana* comes from the Sanskrit root word 'swid', which means "to sweat, perspire, foment, or soften". *Sweda* is the "internal excreta of the body" produced by *Meda* or fat tissue.^[14]

Swedana is classed according to its application method, materials, and heat usage throughout the process. There are approximately 13 types of *Saagni* (heat source formentation) and 10 types of *Niragni Sweda* (No heat source formentation). In some pathological conditions both forms of *Ruksha* and *Snigdha Sweda* can be skillfully combined as and when required. To treat pain and symptoms caused by *Ama* (Metabolic poisons) or *Meda* (Stored fat or *Kapha*), *Ruksha Sweda* or dry fomentation is recommended. In conditions where pain and related symptoms are due to vitiation of only morbid *Vata*, *Snigdha Swedana* (Wet or unctuous fomentation) is preferred.^[15] *Shashtika Shali Pinda Swedana* is a kind of *Sankara Sweda*.^[16] Which comes under the category of *Saagni Sweda* with *Snigdha Dravya* as *Ksheera* and *Shali Dhanya*.

METHOD

Preparation of Pottali/Pinda

To prepare *Shashtika Shali Pinda*, various medical materials are needed, including *Kwatha*, *Shashtika Shali* (A specific variety of rice), cow milk, fabric, and other cooking goods. *Bala moola* is chosen for preparation of *Kwatha*. To prepare the *Kwatha*, add cow milk and *Shashtika Shila* rice to half of the *Kwatha* and simmer (To cook gently in a liquid that is almost boiling) thoroughly. Prepare two *Pinda* of cooked rice. The other half part of *Kwatha* is mixed with some cow milk and used as *Bala moola Kwatha* during procedure.

Method of administration

To prepare for the main treatment, conduct *Abhyanga* with recommended *Taila* for 15-35 minutes. *Pottali* are dipped in a mixture of *Bala moola Kwatha* and cow milk, then boiled concurrently. This *Pottali* is gently stroked and squeezed onto the patient. This is done in 7 postures (2 to 5 Min in each posture). After the procedure, the *Shashtika* is removed and *Taila* is administered to the body with a gentle massage.

After *Shashtika Shali Pinda Swedana* therapy, patients should take a lukewarm water bath.

The total duration of the procedure may vary from 45 to 90 minutes. The process typically lasts 7-21 days, depending on the patient's condition and disease severity. *Shashtika Shali Pinda Swedana* improves circulation and provides sustenance to the body. It enhances the strength of bones and muscles.

DISCUSSION

The medicinal oil used in *Abhyanga* prevents muscle atrophy and improves tone. Typically, *Bala Taila* is used for *Abhyanga*. *Bala*, a *Vatashamaka*, offers nutrients to muscles and prevents atrophy. The *Taila* has *Snigdha guna*, which helps perform *Snehana*, *Kledana*, and *Vishyandana* at the cellular level. Additionally, *abhyanga* reduces muscular tone and tension. Tight fascia is stretched, and soft tissues are restored to their mobility. Pain relief involves relieving muscle tension and altering nerve terminals.

The *Shashtika Shali Pinda Swedana* method offers both thermal and medical benefits. Fomentation increases skin permeability through sweating, dilation of blood vessels, and improved absorption of drugs. Superficial layer of skin is generally impermeable to most of the things. Milk contains phospholipids, a key component of cell membranes. Its amphipathic (both hydrophilic and hydrophobic) nature enhances drug absorption. It relieves *Vata*, *Pitta*, and *Rakta* symptoms in the skin, joints, muscles, and soft tissues. It promotes joint movement and flexibility, relieves nerve pain, and boosts circulation. *Abhyanga* relaxes overly tense muscles. Tight fascia is stretched, and soft tissues are restored to their mobility. There are seven types of posture in *Abhyanga*, which are as follows:

- Sitting
- Supine
- Left lateral
- Supine

- Right Lateral
- Supine
- Sitting

In each position massage should be given for 2-5 minutes. The patient is asked to gradually change positions while doing *Abhyanga* because the surface of the table will be slippery. The patient should be instructed with every change position. It is also good to keep the patient informed about the importance of each position so that he or she could appreciate the treatment while enjoying it.

Pain and stiffness of muscle in Cerebral Palsy mainly occurs due vitiation *Vata*.

Probable mode of action of *Abhyanga*^[17]

- The *Abhyanga* should be completed before the *Shastika Shali Swedana*. *Abhyanga* has two possible effects: manual manipulation and medicinal oil. *Bala*, a combination of *Vatashamak* and *Balya*, is absorbed locally through oil media, providing sustenance to muscles and avoiding muscle atrophy while enhancing tone. Proper pressure application can reduce the activity of alpha motor neurons, reducing hyperexcitability.

Probable mode of action of *Shashtik Shali Pinda Swedana*^[17]

- Spastic Cerebral Palsy was observed in 75 % patients. Spasticity is defined by increased resistance to passive stretch, which is velocity dependent and asymmetric around joints. (i.e. greater in flexor muscle at the elbow and the extensor muscle at the knee).
- According to Ayurveda, this could be caused by *Vata Avarana*, which prevents *Vayu* from performing its regular function, such as joint movement (*Pravartaka Cheshtanam*).
- Initially, *Udvardhana* may reduce vitiated *Kapha* through its *Ruksha* and *Srotoshodhana* properties. Once *Vayu* resides in *Sparshnendriya* which is located In *Tvachya*, *Abhyanga* is quoted as *Tvachya* is removed the aim of treatment is to pacify vitiated *Vata*. *Abhyanga*, combined with *Shastika Shali Pinda Swedana*, can help balance *Vata*. *Sweda* may target *Vata* directly to restore balance. *Shshtika Shali rice* contains *Snigdha* and *laghu*, among other ingredients. *Sweda* may target *Vata* directly to restore balance. *Shshtika Shali rice* contains *Snigdha* and *laghu*, among other ingredients. SSPS, like *Karma*, nourishes the entire body and strengthens fomentation, making it beneficial for conditions such as limb malnutrition. SSPS enhances physical consistency and increases the muscular strength.

CONCLUSION

Although Cerebral Palsy is incurable, but Ayurveda can give a better control by enhancing the quality of life of children having Cerebral Palsy with better longevity. *Shashtika Shali Pinda Swedana* can reduce spasticity, joint deformities, and prevent contractures. It also improves muscle tone, strength, and dhatus nutrition.

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