



Shashtika Shali Pinda Sweda in the Management of Cerebral Palsy: A Critical Review

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Abstract

Children are the strength of a nation. Childhood period is the foundation of the life and it is here that seeds for healthy life are laid down; disabled children are of great concern to family as well as the society. Cerebral Palsy (CP) is the leading cause of chronic disability in children, making them socially apart. According to WHO (World Health Organization) approximation, in India estimated incidence of Cerebral Palsy is around 3 / 1000 live births. CP is the manifestation of intrauterine pathologies, intrapartum complications, and the postnatal sequel, especially among preterm neonates. A double hit model theory is proposed suggesting that an intrauterine condition along with intrapartum or postnatal insult lead to the development of CP. *Swedana* (fomentation) is defined as the process by which the sweat or perspiration is produced in the body by using various methods. Inducing perspiration by using heated round *Pinda* (bolus) of special rice i.e. *Shashtika Shali* prepared in milk and processed with herbal decoction is referred as *Shashtika Shali Pinda Sweda*. This belongs to the category of *Agni sweda* as well as *Snigdha sweda*. A *pinda* (bolus) made up of *Shashtika Shali* (a type of rice harvested in 60 days) prepared in milk processed with herbal decoction is tied in bolus to rub against the whole body or afflicted part of the body so as to provide heat, nutrition and strength to the pain afflicted joints, muscles or body parts. *Shashtika Shali pinda Swedana* is found to be effective against various symptom of CP.

Keywords: Cerebral Palsy; *Swedana*; *Shashtika Shali Pinda Swedana*; *Agni Sweda*; *Snigdha Sweda*

Introduction

Disabled children are of great concern to a family as well as to the society. When disability is discussed, particularly in children, about a quarter of chronic childhood problems

are neurological in origin. Cerebral palsy (CP) is the leading cause of chronic disability in children [1], making them physically and mentally handicapped and socially aloof. The worldwide incidence of CP is approximately 2 to 2.5 cases per 1000 live births [2]. In India, it is estimated at around

3 cases per 1000 live births; however, being a developing country the actual figure may be much higher than probable figures. There are about 25 lakh CP children in India as per the last statistical information [3]. It is a symptom complex or syndrome condition rather than a single disease. It is an umbrella term encompassing a group of nonprogressive, noncontagious condition that causes motor impairment syndrome characterized by abnormalities in movement, posture, and tone [4]. In short, it is a group of symptoms occurring due to the involvement of musculature, sense organs (i.e. vision, hearing, speech, etc.), and the mind, including intelligence at variable extents. It can be caused by any of prenatal, natal, and postnatal factors and the primary eventual pathology is any type of injury to the developing brain. Due to the nonprogressive nature of the lesion, historically it is considered as static encephalopathy and excludes all the progressive neurological disorders [5]. No effective treatment for the underlying brain damage has been formulated to date. All the sophisticated technologies and highly expensive and complicated therapies in the medical research field have failed to find a definite cure for this disease. There is no similar disease or symptom complex in Ayurveda that is synonymous to CP. While observing the etiology and clinical features, the predominance of Vata is obvious, and this classifies this disease entity closer to Vatadominant conditions (i.e. Vata Vyadhi). Whereas etiology is concerned, about 75% factors are prenatal in origin [6] Causative factors such as inappropriate Ritu, Kshetra, Ambuand Bija [7]. Dauhrida Avimananat [8,9], (negligence of pregnancy craving), presence of Garbhopaghatakarabhava [10,11] incompatible Garbha Vriddhikarabhava [12] and improper following of Garbhini Paricharya [13,14] may have undesirable effect on the fetus in utero. These hamper the normal growth and development of the child and cause several diseases, deformities, and even death. The mentioned classical references provide an idea about some of the factors or events that result in the occurrence of such comorbid conditions, including CP. Preventive aspects are given more emphasis to limit their occurrence and this can be said to be the only way of coping up with diseases that have a higher prevalence with no definite cure option available. The use of Panchakarma procedures and specific oral medications have been found to improve clinical practices and ongoing researches compared with only oral medication or physiotherapy Considering this, it is planned to study the effect of Abhyanga and Shashtika Shali pinda Sweda (SSPS) with internal administration of medicine.

Type of Cerebral Palsy

Cerebral palsy affects the messages sent between the brain and muscles in the body. There are three types on cerebral palsy

- Spastic

- Athetoid (or dyskinetic)
- Ataxic

In general these three type related to the part of the brain that has been damaged or affected. The effects of cerebral palsy very commonly from one person to another, with some people experiencing a combination of two or more type.

Swedana is the next important & essential *Purvakarma* after *Snehana* in *Panchkarma* [15]. It is the prime modality of treatment for numbers of disorders especially *Vata* & *Kapha* predominant disease [16]. *Acharya charak* has mentioned that *Swedana* therapy is best for the treatment of vitiated *Vata* & *Kapha* dominant diseases [17]. *Swedana* is done to liquefy the vitiated *dosha* & directs those towards *Koshta* 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 *Achary 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* [18]. *Acharya charak* has classified the *Sweda* into two groups one is *Sagni* & another one is *Niragni* [19]. In *Ayurveda*, *Swedana* procedures are done in the form of *Pinda Sweda* (sudation using bolus) in which *Kizhi/Pinda/Pottali* (bolus) containing drugs is used for *Ekanga* and *Sarwanga Sweda*. *Shashitka Shali Pinda Sweda* is a variety of *Snigdha Sankara Sweda* [20] which comes under *Sagni Sweda* [21].

Preparation of Pottali/Pinda

In this therapy, different medicinal materials are required for preparation of *Shashtika Shali Pinda* such as materials for *Kwatha*, *Shashtika Shali* (special variety of rice), cow milk, pieces of cloth and other necessary items for cooking of *Kwatha*. *Bala moola* is chosen for preparation of *Kwatha*. Of the prepared *Kwatha*; in half of the *Kwatha*, Cow milk is added along with *Shashtika Shali* rice and cooked properly and two *pinda* of cooked rice are prepared. The other half part of *Kwatha* is mixed with some cow milk and used as *Bala moola Kwatha* during procedure.

Method of Administration

Abhyanga should be performed with prescribed *Taila* for about 15 to 35 minutes before the main procedure. The prepared *Pottali* are taken and dipped in the mixture of *Bala moola Kwatha* and cow milk which is simultaneously boiled. This *Pottali* is rubbed and squeezed mildly on the patient. This is done in 7 postures (2 to 5 Min in each posture). After the procedure is completed the *Shashtika* is scrapped from the body and *Taila* applied over the body with mild massage.

After the *Shashtika Shali Pinda Sweda* treatment, Patient should be advised to take lukewarm water bath. The total duration of the procedure may vary from 45 to 90minutes. The procedure is normally performed for 7 to 21 days according to the condition of the patient and may vary according to the condition of the diseased. *Shashtika Shali Pinda Sweda* will help to improve circulation, nourishment to the body. It also improve the strength of the tissue of bones and muscles.

Discussion

The medicated oil used in *Abhyanga* helps in preventing muscular atrophy and improving tone. Generally, *Bala Taila* is applied for *Abhyanga*. *Bala* is *Vatashamaka* and *Balya* thus provides nutrition to the muscular tissue and thereby preventing atrophy of muscles. Also the *Taila* possess *Snigdha Guna* by virtue of which it performs *Snehana*, *Kledana* and *Vishyandana* of body at cellular level. Also, *Abhyanga* causes reduction of tone in muscles, which are in a state of excess tension. Stretching of tight fascia and restoration of mobility of soft tissues also occurs.

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

Probable mode of action of *Abhyanga* [22]-

The *Abhyanga* should be done before *Shashtika Shali Sweda*. The effect of *Abhyanga* can be supposed by two means i.e. physical manipulations and the effect of medicated oil. *Bala* is *VataShamak* and *Balya* that absorbed locally with the help of oil media gives nourishment to muscle preventing from atrophy of muscle and improving muscular tone. Application of pressure done in correct manner may decrease the alpha motor neuron activity and thus decrease hyper excitability of motor neuron. The mechanism of action is not clearly known and the amount of pressure to be given to stimulate deep tendon receptors or superficial mechanoreceptors is still not properly understood. In a study massage therapy showed good result in the symptoms of Cerebral Palsy of children. In this way *Abhyanga* acts by the help of the *Guna* (properties) of *Sneha* (oil) thus mitigate vitiated *Vata*. The amount of pressure to be given to stimulate deep tendon receptors or superficial mechanoreceptors is still not properly understood. A study reported that in hemiparetic subjects the H-reflex was depressed during both continuous and intermittent tendon pressure. Intermittent pressure was more effective than continuous.

Probable mode of action of *Shashtika Shali Pinda Sweda* [22]

- Spastic Cerebral Palsy was observed in 75 % patients. Spasticity is characterized by increased resistance by passive stretch, velocity dependent and asymmetric about joints (i.e. greater in flexor muscle at the elbow and the extensor muscle at the knee).

- In Ayurveda this may happen due to *Avarana* of *Vata*, wherein, due to *Avarana*, *Vayu* cannot perform its normal function i.e. normal movement of joints (*Pravartaka Cheshtanam*).
- Initially *Udvardhana* might be helped in reduction of vitiated *Kapha* by its *Ruksha* and *Srotoshodhana* property. Once *Avarana* is removed the aim of treatment is to pacify vitiated *Vata*. *Vayu* resides in *Sparshendriya* which is located in *Tvachya*, *Abhyanga* is quoted as *Tvachya*. So, *Abhyanga* along with *Shashtika Shali Pinda Sweda* might work directly on *Vata* to bring it back to normalcy. *Shashtika Shali* rice has the *snigdha*, *laghu* etc. *Guna* and *Brihana* like *Karma*, So *SSPS* nourishes the full body and it is strengthening fomentation which can be very useful in condition like malnutrition of limbs. *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. The effect of *Shashtika Shali Pinda Swedana* is helpful in reducing the spasticity, joint deformities and prevention of contractures and thus improving muscle tone, gain in muscle strength & proper nourishment of *dhatu*s. From this case study, it can be concluded that *Shashtika Shali Pinda Sweda* can be used for the management of pain, stiffness in cerebral Palsy. This is Attempt to describe information regarding *Shashtika Shali Pinda Sweda* in the management of Cerebral Palsy in this Research article.

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