

EFFECT OF AYURVEDIC ABHYANGA THERAPY IN CEREBRAL PALSY

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ABSTRACT

Cerebral palsy describes a group of permanent disorder of movement and posture causing activity limitation resulting from non-progressive structural abnormalities in the developing brain. It is the most common childhood physical disability and affects 2 to 2.5 children per 1000 born in the world. Complications of cerebral palsy include spasticity and contractures, feeding difficulties, drooling, communications difficulties etc. present article aims to improve the condition of cerebral palsy with the abhyang(one of the panchkarma procedures). Abhyanga means massaging the body with any snehas(fats) in the same direction of hair follicles. The massage has a very soothing effect on the nervous system, which is governed by vata dosha – one of 3 basic principles of ayurveda. Abhyanga directly works on vata to bring it back to normalcy. Abhyanga reduces increased muscle tone, improves muscle bulk and power in CP cases.

KEYWORDS: Cerebral palsy, Abyanga.

INTRODUCTION

Cerebral palsy is primarily a neuromotor disorder that affects the development of movement muscles tone and posture. The underlying pathophysiology is an injury to the developing brain in the prenatal through natal period. Although the initial neuropathologic lesion is non-progressive.^[1] Motor disorder of CP are often accompanied by disturbances of sensation, perception, cognition, communication and behaviour. Cerebral refers to the cerebrum a major portion of human brain, which is the affected area of the brain in this disease condition and palsy means the brain in this disease condition and palsy means paralysis which refers to weakness or lack of muscles control.

CP is characterised by heterogeneity in role factors, underlying specific etiology, clinical features, severity of functional limitations associated and secondary conditons.

The incidence of CP is 2-3 per live 1000 birth, the incidence is higher in males than in females.^[2]

In Ayurveda, there is no single condition/disease which exactly show similarity with CP. While observing the etiology and clinical features, the predominance of vata is obvious and put this disease entity nearer to vata dominant conditions or vatavayadhi. It is also worth mentioning that just like cerebral palsy, vatavyadhi too may emerge at any age (before birth, during birth and after birth) i.e. since conceptions up to old age. According to Ayurveda texts the cerebral palsy and its features can be covered under following disease or conditions. i.e. phakkaroga (nutritional disorder described in kashyapa Samhita), pangulya (locomotor disorder), makatva (dumbness), jadavata (mental disorders), ekangaroga (monoplegia), sarvangroga (quadriplegia), paksaghata (hemiparesis), pakshavdha (hemiplegia), akshepaka (convulsion disease) etc.^[3]

No effective treatment for the underlying brain damage has been formulated till today. All the sophisticated

technology and highly expensive and complicated therapies of the medical research field have failed to find out a definite care for the disease.

Ayurveda mentioned two main therapeutic measures i.e. Shodhana and Shaman. Panchakarma is the best available treatment for the removal of disease from its root and also for better outcome. In the previous research works, it is proved that panchakarma procedures is more effective in the management of cerebral palsy. There are following type of panchakarma procedures i.e. Udvartan, Abhyanga, Swedana and Basti.

Among all the panchakarma procedures, Abhyang is more effective therapy which shows effectively work on the cp patients. The term Abhyang is used as a synonym of oil bath. Abhyanga means massaging the body with any snehas(fats) in the same direction of hair follicles. The massage has a very soothing effect on the nervous system, which is governed by vata dosha – one of 3 basic principles of ayurveda.^[4]

MATERIALS AND METHODS

This paper is based on Ayurvedic nighantus, Samhitas, Ayurvedic text book, various type of published articles and systematic reviews. All the relevant texts of ayurveda and contemporary science were explored for the present study. A narrative review was done for the present paper.

IMPORTANCE OF ABHYANG

Abhyanga involve cutaneous manipulation and it is considered as one of the prime procedures for mitigating vata. Primarily it acts by two mechanisms i.e, local and central. The local mechanisms include cutaneous stimulation causing the arterioles to dilate and there by achieving more circulation. It also assists venous and lymphatic drains. Abhyang stimulates sensory nerve endings of the skin and gives abundant sensory inputs to the cortical and other centers in central nervous system. Abhyang improves blood supply to muscles, relieves muscular fatigue and reduces stiffness. This state of hyper circulation also enhances the trans-epidermal drug absorption and assimilation. Abhyanga procedure is the mechanical stimulation more precisely the pressure application during massage. Pressure application done in proper way help in reduction of motor neuron hyper-excitability by reducing the alpha motor neuron activity. A study reported that in hemiparetic subjects the H-Reflex was depressed during both continuous and intermittent tendon pressure. Intermittent pressure was found more effective than continuous. In a study, cerebral palsy symptoms in children were decreased following massage therapy.^[5]

Abhyanga is kaphavatahara, pusti (health promoting) and ayurvedhak (increases life span). Abhyanga nourishes the superficial and deep muscles and make the muscles strong and joints stable. Abhyanga induce pleasantness and claming effects. The stroke used in

Abhyanga like Kneading; friction etc improves local circulation. The procedure which causes unctuousness, fluidity, softness, and moistness in the body is snehana or oleation thereapy. Abhyanga with shasthi Sali panda sweda cumulatively help in reduction of spasticity and facilitate free movement of joint preventing from deformities and contractures in CP cases. Abhyanga of the entire body with medicated oils like Bala tail, Mahanarayan tail, Prasarini tail, and Mashadi tail are very effective. Abhyanga involving concomitant stretching maneuvers is very beneficial in patients with spastic diplegia resulting from cp.^[6]

ABHYANGA PROCEDURE

The abhyanga can be done either in standing or sitting or lying position. Abhyanga should be done in the direction of hair with the palms. Early morning abhyanga with slight warm oil should be started by applying a small amount of oil on the skin and massaging the whole body gently.

TYPES OF ABHYANGA

- **Sarvanga Abhyanga:** This is a full body massage that is done for the entire body.
- **Shiro Abhyanga:** This massage is done on the head. It is helpful in ensuring relaxation and relief from Headache and sinus problems.
- **Ekanga Abhyanga:** This massage is done on specific parts of the body, to relieve pain or stiffness.
- **Pada Abhyanga:** This is a foot massage done for the foot and toes. It helps to provide relief from aching feet and related problems.
- **Shishu Abhyanga:** This is an oil massage done on newborn babies. Shishu Abhyanga is an important newborn rituals for their development and health. Oil application relieves stress, provide tactile stimulation, enhances blood flow, protect against heat loss, and provides additional energy to newborns and children. Neonatal massage is quite important during the formative years. Muscles become stronger, sense organs become more powerful, and the brain grows rapidly during this period. Immunity is also rapidly building at this time. Human growth hormone (HGH-promoter of normal growth) release is increased by body massage in newborns.^[7]

DISCUSSION

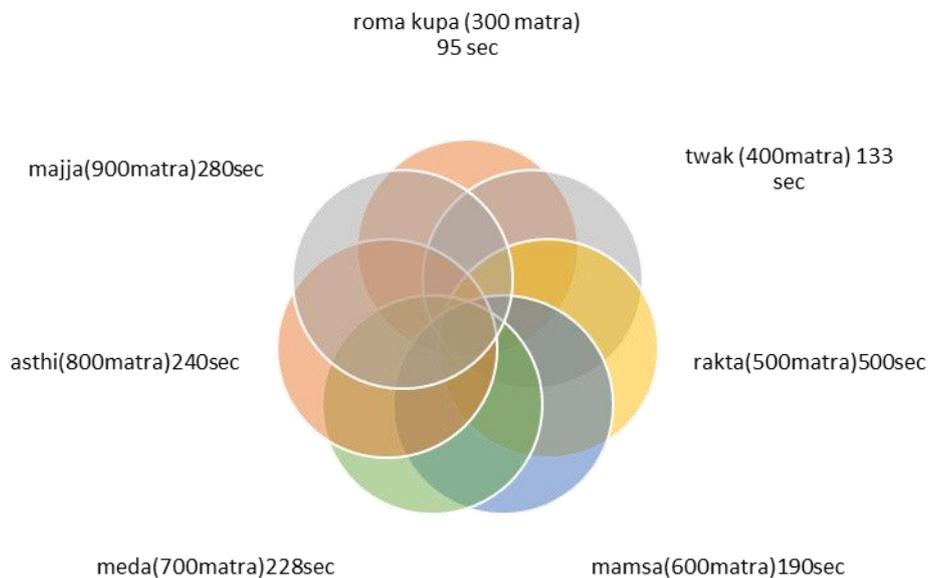
An exact correlation to cerebral palsy is not directly available in the Ayurvedic texts. However, considering the Ayurvedic disease classification and their respective features, Cerebral palsy can be compared with Vatavyadhi or vatavikar (Diseases of the nervous system) which specifically afflict the shiro –marma which may not noticeable in various clinical forms as pakshaghat, ekangaroga, pangu, sarvangroga, aakshepka etc.

Though cerebral palsy may not be fully cured, Ayurvedic treatment can definitely help to reduce disability and improve the functioning of the affected individual to a great extent. In present study we discussed about benefits of Abhyanga on cp patients.^[1,2] According to ayurveda, Abhyanga is one among the dinacharyas and is an ancient Indian Ayurvedic approach adopted for healing, relaxation and treating various diseases. If Abhyanga is followed daily it improves the muscles tone of the cp patients, reduces spasticity and makes their condition better. The oil used for abhyanga nourishes the tissues, gives strength and increases the Agni.

How the Tissues are nourished, to speak hypothetically the knowledge about the seven layers of skin, its Thickness and the time duration for the oil to reach the

different dhatus are needed. The seven layers of skin are very clearly mentioned in Ayurveda. The average thickness mentioned by modern science is 1.5-4mm. Now the effect of abhyanga on different dhatus based on time duration should be discussed to know how long the abhyanga should be performed.

- The time duration taken by the oil to reach the hair follicles when abhyanga is performed is 300 matras (95 sec),
- The oil reaches the skin, rakta dhatu, mamsa dhatu, medo dhatu, asthi dhatu is 400 (133 sec), 500 (160 sec), 600 (190 sec), 700 (228 sec), 800 (240 sec) respectively
- The abhyanga is continued for 900 matras (280 sec) it reaches the majja dhatu.



Therefore as a daily routine 10 minutes is sufficient but for diseased condition 20 to 30 minutes of Abhyanga is needed. In cp patients various balya oil should be used which provides nourishment to the muscles and reduces muscles spasticity and rigidity and improves muscles tone. Hypothetically it can be said that the blood aminoacids like tryptophan increase after massage. Massaging reduce pain and stress. By abhyanga the nervous system gets stimulated, thus providing stimulation to the Muscular system, vessels and glands governed by the particular nerve and keeps the the body healthy. Massaging also improves the circulatory system thus reducing the pain. Usually medicated lukewarm oil should be used for abhyanga. The warm oil stimulates the Swedavahasrotas (perspiring body channels) thus causing dilatation of the blood vessels there by increasing the blood circulation, thus relieving pain, stiffness and contraction of vessels. Abhyanga directly works on vata to bring it back to normalcy. Abhyanga along with swedana and vasti removes aavarana and

srotorodha (obstruction of channels). Abhyanga and swedana together divert the dosha's from shakha to kostha, Later from kostha dosha's can be managed by vasti or other panchakarma procedures. When vata comes to normalcy development of milestones will become normal. Abhyanga reduces increased muscle tone, improves muscle bulk and power in CP cases.

CONCLUSION

CP cannot be correlated with any single diseases or condition mentioned in Ayurveda, as it is a multi factorial disease. There are few available treatments to reduce generalized spasticity in CP. There is a high interest and increasing trend present among families of children with CP towards Complementary and Alternative Medicine. According to ayurveda symptoms and clinical features of CP can be related with Vata Vyadhi. For vata vyadhi Abyanga is one of the effective treatment to manage vata and brings back to its Normalcy. Abhyanga along with Swedana and basti

removes aavarna and srotorodha. Abhyanga nourishes the superficial and deep muscles help in reduction of spasticity and facilitate free movement of joint preventing from deformities and contractures in cerebral palsy.

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