



ISSN: 0976-3376

Available Online at <http://www.journalajst.com>

ASIAN JOURNAL OF  
SCIENCE AND TECHNOLOGY

Asian Journal of Science and Technology  
Vol. 09, Issue, 06, pp.8294-8297, June, 2018

## RESEARCH ARTICLE

### MANAGEMENT OF CEREBRAL PALSY BY PANCHAKARMA – A CONCEPTUAL CONTRIVE

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#### ARTICLE INFO

##### Article History:

Received 13<sup>th</sup> March, 2018

Received in revised form

26<sup>th</sup> April, 2018

Accepted 19<sup>th</sup> May, 2018

Published online 30<sup>th</sup> June, 2018

##### Key words:

Cerebral palsy,

*Vatavyadhi*, Panchakarma.

#### ABSTRACT

Cerebral palsy (CP) is a static, non-progressive disorder caused by brain insult or injury in the prenatal, perinatal, and postnatal time period. It is characterized by the inability to normally control motor functions, and it has the potential to have an effect on the overall development of a child. Despite of all the progress in newborn care its prevalence remains at 2-2.5 per 1000. Doctors as well as parents of CP children are familiar with the fact that there is no cure for Cerebral Palsy. There is no exact description of the disease entity which exactly matches the feature of CP in Ayurveda classics. There is one very important chapter of *Vatavyadhi* with good contribution for the causative and management aspect of CP. In Ayurveda, there are various methods of therapies i.e. *Snehana*, *Swedana*, *Basti*, *Nasya* etc. the Panchakarma procedures may help in both physical and mental level and enhance physical activity, increases the muscular strength and nourishes the full body. Ayurvedic protocol of management can provide some benefit by giving possible improvement in the present condition and minimize the disability of those innocent children and improve their quality of life and give active and self supporting happy life.

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#### INTRODUCTION

Cerebral palsy (C.P.) is the second commonest cause for the disability in children, making them physically, mentally and socially handicapped. Cerebral palsy (CP), a static, non-progressive disorder caused by brain insult or injury in the prenatal, perinatal, and postnatal time period, is the major developmental disability affecting function in children. It is characterized by the inability to normally control motor functions, and it has the potential to have an effect on the overall development of a child by affecting the child's ability to explore, speak, learn, and become independent. Despite of all the progress in newborn care its prevalence remains at 2-2.5 per 1000. Doctors as well as parents of CP children are familiar with the fact that there is no cure for Cerebral Palsy.

**Need of alternative treatment:** A child born with C.P. or other disabilities has never had a more promising future. Caring for a child with disabilities does place substantial stress on a family, challenging members in every aspect of their lives.

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As far as management or preventive aspect is concerned, there are no satisfactory criteria developed till date. Probable causes with proven incidence are the matters for search. Doctors as well as parents of CP children are familiar with the fact that there is no cure for Cerebral Palsy. Spasticity is the most important facet of overall management of CP. Oral medications used to decrease spasticity has untoward side effects. As the CP is associated with other problems, more other drugs are added to prescription, making more complexity of treatment. The available treatment options are highly expensive and out of reach from low income groups. The alternative medical treatment was found to be of great interest to families of affected CP children. Though the disease is not curable but early intervention with counseling, appropriate medication and physiotherapy along with Panchakarma procedures will help at possible level for the rehabilitation towards lives with potential of independence. Ayurvedic protocol of management can provide some benefit by giving possible improvement in the present condition and minimize the disability of those innocent children and improve their quality of life and give active and self supporting happy life.

**Cerebral palsy and Ayurveda:** In Ayurveda classics there is no exact description of the disease entity which exactly

matches the feature of CP. There is one very important chapter of *Vatavyadhi*<sup>10</sup> with good contribution for the causative and management aspect of CP. Exact relationship of CP in *Ayurvedic* terminology is difficult. However based on sign and symptoms and nature of the disease, it can be correlated as follows.

- *Vata vyadhi*
- *Bala samvardhana vikriti*
- *Sahaja jadata*
- *Shiro marmabhighataja vata vikara*
- *Bala pakshaghata*

CP is viewed as a disease with vitiation of all three *dosha* with predominance of *Vata* or more precisely *Shiromarma Abhighatajanya Vata Vikara* manifesting clinically all over the body with the site of lesion in brain. It manifest with clinical presentation like

- Monoplegia (Ekan rog)
- Hemiplegia (Pakshaghat)
- Diplegia (Pangu)
- Quadriplegia (Sarvang vata) etc.

### Panchakarma procedures

Panchakarma is Ayurveda's primary purification and detoxification treatment. Panchakarma means "five therapies". These 5 therapeutic treatments eliminate toxins from the body, they are: Vamana, Virechana, Nasya, Basti and Raktamoskshana. The series of these five therapies help remove deep rooted stress and illness-causing toxins from the body while balancing the doshas (energies that govern all biological functions).

### Panchakarma and Kaumarbhriya

*Shodhana* or *Pancha Karma* is said best treatment for the removal of disease from the root and better outcome of treatment. While managing childhood disease, the same *Shodhana* procedures cannot be followed in the same manner as mentioned for adult disorder (Due to their tender built and inability to withstand the stress on the body). Children also come under Panchakarma *Ayogya* group. Usually in case of a child this option stands with second preference and priority is given to the *Shamana* therapy. Hence modification of *Shodhana* procedures is necessary while managing childhood diseases. All Acharya are likely same to opine this subject to prefer *Shamana* therapy and avoidance of these Panchakarma measures at possible extent. Acharya Kashyapa has promoted the use of these Panchakarma treatment methods with requisite modification where ever needed. *Hasta Sweda* is one type of *Sweda* described by Acharya Kashyapa. This is employed for the infant since birth and up to 4 month of age is an ideal example for such acclimatized approach. The CP child comes in *Baala*, *Durbala*, *Ksheena*, *Sukumara*, *Kleshahishnu*, *Alpasatva* etc. categories described as Panchakarma *Ayogya* in most of the classics. Use of these measures may need appropriate monitoring and its use without caution may worsen the condition.

### UDVARTANA

*Udvartana* is one of the methods to do *Rukshana* of the body to remove obstruction from the *Srotas*. *Udvartana* can be of two types- 1. *Ruksha* 2. *Snigdha*. Among the *Shadupakrama* of

*Charaka Samhita*, *Rukshana* is having its importance in removing *Aama* from micro and macro channels. *Udvartana* is a procedure in which powder of various plant part are massaged over the body. Spastic CP is considered as a *Vata Vyadhi* in which *Vata* is become *Aavarita* (getting covered) by vitiated *Kapha* at the site of *Mastulunga* which is again the natural site of *Kapha*. So to remove the *Srotorodha* and to open the channel *Ruksha Churna* (*Yava and Kulattha*) *Udvartana* can taken prior to all other procedures.

### Benefits of Udvartana

- *Kapha Hara*: By its *Rukshana* property
- *Medasah Pravilayanam*: Doing massage by applying pressure leads to separate the vitiated *Meda Dhatu*.
- *Sthirakaranam Anganam*: By the counter acting against the *Kledana Guna* of *Aama*, *Kapha*, *Meda* etc
- *Tvaka Prasada Karam Param*: By increasing *Tvakastha Bhrajakagni*.
- *Shiramukha Viviktavyam*: By improving local blood circulation.

### ABHYANGA

It can be defined as the process of application of plain/ medicated oil or *Sneha Dravya* over the body with massage. According to concepts of Ayurveda *Sneha* diffuses in the body through the minute hair follicles of skin and is dissolved by *BhrajakaPita*. *Taila* is a *Snehadravya* having properties opposite to the properties of vitiated *Vata*. With the help of *Vatahara* property, *Taila* controls the vitiated *Vata*, which is the main factor in the pathogenesis of Cerebral Palsy. With the help of *Suksma Guna*, the drug can enter in the fine channels (*Srotasa*) and helps in the correction of *Srotodusti*. *Ushna* and *Sukshma Guna* of *Taila* have aided to relieve the stiffness of the muscle. *Abhyanga* if performed for longer time on affected muscles, the maximum relief in stiffness can be achieved and reduction in tendon reflexes and hypertonia can be achieved.

**Benefits of Abhyanga:** It is explained in curative and preventive aspects also by means of daily procedure included in *Dinacharya*. It is advised to include in daily regime, in all season and from childhood till old age.

The Properties of *Abhyanga* as per Ayurvedic texts are as follows;

- *Jaraahara*: *Abhyanga* counteracts the aging process.
- *Shramahara*: *Abhyanga* relaxes the tensile muscles, thus helping relaxation.
- *Vaatahara*: As *Abhyanga* is done with *Sneha Dravyas* which are having potent *Vaatashaamaka* properties, it is natural that *Abhyanga* is *Vaatahara*.
- *Drishti Prasaadakara*: *Abhyanga* improves quality of eye sight.
- *Pushtikara*: *Abhyanga* nourishes various *Dhaatu*, producing *Pushti*
- *Aayushyakara*: *Abhyanga* increases lifespan
- *Swapnakara*: *Abhyanga* helps in inducing sound sleep
- *Twak Daardhyakara*: *Abhyanga* make skin intact and increases its healthy status.

- **Klesha Sahatva:** *Abhyanga* induces strength in body, making it adaptive for all types of condition. It increases its tolerance towards various external agents.
- **Abhighaata Sahatva:** Persons who regularly do *Abhyanga* are not affected much by any type of trauma
- **Mrujavarna:** *Abhyanga* improves complexion of body and
- **Balaprada:** increases its strength

## SWEDANA

Contracture, stiffness, spasticity etc. get immediately alleviated and the body is softened by the administration of Fomentation therapy. The process inducing perspiration of the body is named as *Swedana Karma*. In other word *Swedana* means dry or wet fomentation or heat therapy. This is generally executed after *Abhyanga*. There are different types of fomentations can be used as per clinical condition of a person. *Swedana* pacifies the *Vayu*, which causes rigidity and contracture due to its *Ruksha* and *Shita Guna* and *Swedana* removes it by its *Ushna Guna*. *Swedana* can also increase the *Dhatvagni* level, thus digesting *Aama Dosha*.

### Benefits of *Swedana*

- *Stambhaghna*
- *Gauravaghna*
- *Shitaghna*
- *Swedakaraka*
- Other functions:, , *Vata Niyamana*, *Gatra Vinamana*, *Agnideepana*, *Twaka Mardava*, *Bhakta Shraddha*, *Srotoshuddhi*, *Cheshta* in *Stabdha Sandhi*, *Dosha Dravatva*, *Dosha Shodhana*, *Nidra-Tandra Nasha*..

## SHASHTIKA SHALI PINDA SWEDA (SSPS)

Aacharya Charaka has described various type of *Saagni sweda* and *Shashtika Shali Pinda sweda* is one of them which comes under the *Pinda sweda (Sankara Sweda)*. Further it comes under *Snigdha* type of variety due to *Snigdha* property of the material used in this procedure and this is indicated in *Vata Vyadhi* or *Vata* dominant conditions. In this procedure fomentation is carried out by the application of *Pinda* (Bolus containing medicines) on the body with gentle massaging by it. *Abhyanga* along with SSPS can provide significant relief in major symptoms of Cerebral Palsy like spasticity, exaggerated tendon reflex, diminished muscle power etc. *Shshtika Shali* rice has the *snigdha*, *laghu* etc. *guna* and *Brihana* like *Karma*, So SSPS nourishes the full body. The whole process becomes a kind of physiotherapeutic procedure.

### Benefits of SSPS

- SSPS enhances physical consistency, increases the muscular strength and improves the overall appearance of the skin.
- This is a strengthening fomentation employed in neurological disorders, malnutrition of limbs, arthritis.

## BASTI

*Basti* denotes *Karma* where the drugs administered through the rectal canal stay for certain period in the body. Then produce

the coating of the *Sneha* in the body & draws out the waste substances from all over the body into the colon & eliminates them out of the body by producing movements in the colon resulting into pleasant (beneficial) effect.

- *Pakwashaya* is the seat of *Vata Dosha*. *Basti* is very helpful in pacifying *Vata*.
- It is glorified that *Basti Chikitsa* as '*Ardha Chikitsa*' or '*Purna Chikitsa*' of *Vata*.

By these facts, *Basti* is most important among the Panchakarma in the treatment of CP. No other *Chikitsa* has the capacity to pacify and regulate the force of *Vata* apart from *Basti*. Sushruta mentioned that the *Virya* of the *Basti* medicines spreads all over the body just as water poured at the root reaches all parts of the tree through the micro and macro channels (Su. Chi. 35/24-25). ). Thus, according to Ayurveda the *Virya* of ingredients used in the *Basti*, gets absorbed and then through general circulation reaches at the site of lesion and relieves the disease. According to *Acharya Charaka*, *Basti* is the best choice among all the treatments to cure diseases of *Marma*, *Shakha* and *Sandhi* as these diseases cannot be produced without the involvement of *Vata*. To treat that kind of vitiated *Vayu*, there is none other than *Basti* to show a great efficacy. CP have pathogenesis at *Shiromarma* level and manifestation is seen at the level of *Shakha* (spasticity) and *Sandhi* (restricted range of motion), which was corrected by *Basti*.

## Conclusion

Cerebral Palsy (CP) is the leading cause of disability in children. Disabled children are of great concern to the family as well as the society. In Ayurveda classics there is no exact description of the disease entity which exactly matches the feature of CP but according to signs and symptoms of the disease, it can be considered as *Vata* dominant conditions or *Vata Vyadhi*. Hence the principle of treatment mainly leads towards management of *VataVyadhi*. Due to the severity and chronicity of the disease and there is multisystem involvement, so only internal medication is not justifiable. Treatment of *VataDosha* consists of a variety of treatment modalities including *Snehana*, *Swedana*, *Shashtika Shali Pinda Sweda* and *Basti* etc. Panchakarma procedures. to obtain optimum result in the crucial growing period of the patients.

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