

EFFECT OF AYURVEDA IN THE MANAGEMENT OF CEREBRAL PALSY - A CASE REPORT

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ABSTRACT

Background and Objectives - The worldwide incidence of Cerebral palsy (CP) is 2.1/1000 live births, and for India it is 3/1000 live births. Cerebral Palsy is the leading cause of disability in children which can be correlated with various *Vata* predominant conditions mentioned in Ayurveda. There is no satisfactory criterion in managing this condition is developed till date. **Case Report** - A male child aged 3 years attended Kaumarabhritya OPD with complaints of unable to walk and speak with drooling of saliva and irregular bowel habits, since the age of development and was previously diagnosed as spastic CP. **Materials and Methods** - The patient has undergone procedure based

therapy *Udvaartana* with *Kolakulathadi Churna* 3days, *Sarvanga Abhyanga* with *Ksheerbala Taila* followed by *Nadi Sweda* with *Dashamoola Kwatha* for 14 days and *Matra Basti* with *Ksheerbala Taila* for 7days along with oral administration of *Abhaya Ghrita*. Total duration of the therapy was 90 days including 3 course of treatment with an interval of 15 days. Assessment was done using Modified Ashworth Scale (MAS), Gross Motor Function Manual (GMFM) and CP-quality of life (CP-QOL) Scale. **Results** - Gross motor function scale has shown improvement in terms of crawling and kneeling, standing and walking and running domain. No change was observed in spasticity, while mild change was observed in quality of life of the patient in terms of communication, participation and health aspects. **Discussion** - *Vata* get pacified by procedure based therapy and oral administration of *Abhaya Ghrita* in a child with CP which in turn improves the gross motor functions and the quality of life of the patient. Thus, it can be concluded that the Ayurveda approach is effective in improving the clinical condition of the patient with cerebral palsy.

KEYWORDS: *Abhaya Ghrita*, Cerebral Palsy, Gross Motor Functions Manual (GMFM), Quality of Life (QOL).

INTRODUCTION

Cerebral Palsy (CP) is being the leading and the most common chronic cause of disability and it is responsible for impaired health related quality of life of children and their care giver.^[1-3] CP is a non-progressive neuro-motor disorder caused by consequences of damage to the developing brain at various stages of life during prenatal, natal and postnatal period. With reference to the prevalence of this disorder, more than 15 million people worldwide and more than 25 lakh people in India^[4] are living with this disability. Worldwide incidence of Cerebral Palsy is 2.1/1000 live births^[5], and for India it is 3/1000 live births.^[6] The incidence of cerebral palsy in India has remained constant over the last 20 years despite of increasing survival rate of low birth weight babies. There is no successful management protocol developed for CP till date, and the whole world is in search of one; the condition can be managed with early intervention and Long term medication with multiple alternatives i.e. Medication, Physiotherapy, Speech therapy, Occupational therapy etc. Thus, multidisciplinary approach is desired for the management of CP.^[7] In Ayurveda, the various conditions presenting the sign and symptoms of CP can be correlated with *Vata* predominant diseases. In the present study, the *Vata* pacifying measures are used to observe the efficacy of Ayurveda interventions in CP with the intention of providing some benefit in present condition and minimizing the disability.

CASE REPORT

A male child aged 3 years was brought to Kaumarabhritya OPD, All India Institute of Ayurveda, Delhi with UHID number – 290208 complaints of unable to walk and speak, drooling of saliva and irregular bowel habits, since the age of development. He was previously diagnosed with spastic Cerebral Palsy.

Antenatal History - The age of the mother at the time of conception for this child was 19 years. The development of rashes all over face and pedal edema during antenatal period was reported.

Birth History - The patient was delivered with normal vaginal delivery at term pregnancy with birth weight of 1.800gm (LBW) at hospital. Baby not cried soon after birth, delayed by 10minutes after performing tactile stimulation according to the parents. History of hypoxia

was suspected during delivery as per reports. Breast feeding was not provided to the patient. Only top feeding and bottle feeding was given since birth till now. Normal growth and development was not achieved properly. A single episode of seizure was reported at the age of 2years (approx.). No medication was given to the patient for this and no other episode was observed. History of recurrent fever and RRTI was also present. No relevant family history was obtained. Initially the child has not taken any treatment for this. Immunization was proper for age.

Personal history - Patient was having poor diet and was dependent on liquid diet (preferably milk) and semi-solid food with the help of others. Sleep was disturbed. Bowel habit of the patient were irregular with constipation and hard stool. Bladder habits were normal. Bowel and bladder control was not achieved as per the age of the patient.

The *Prakriti* of the patient was *Pittaja -Vata*.

MATERIALS AND METHODS

Materials - The total duration of the therapy was 90 days which included *Udvaartana* with *Kolakulathadi Churna*^[8], 10-15min for the duration of 3 days, *Sarvanga Abhyanga* with *Ksheerbala Taila*^[9] for 15-20 minutes followed by 5 minutes of *Nadi Sweda* With *Dashamoola Kwatha*. 5min for 14 days and *Matra Basti* with *Ksheerbala Taila* (10ml) for 7days starting from the 8th day of the *Sarvanga Abhyanga* and *Nadi Sweda*. Three such courses were performed with an interval of 15 days between each course along with the oral administration of *Abhaya Ghrita*^[10] (3gm) with luke warm water, twice a day morning and evening, empty stomach for 90 days.

Methods - The assessment was done using Modified Ashworth Scale (MAS),^[11] Gross Motor Function Manual (GMFM),^[12] and CP-quality of life (CP-QOL) Scale,^[13] before initiating the treatment and after completing the course of treatment (23.11.2018 to 23.02.2019) and anthropometric measurements were taken. Before and after scores were recorded in a case record Performa.

RESULTS

Scale	BT	AT	Scale	BT	AT
MAS – UL			MAS – LL		
Elbow	01	01	Quadriceps	00	00
Wrist	00	00	Hamstring	01	01
Fingers	00	00	Soleus	00	00
Thumb	00	00	Gastrocnemius	00	00
GMFM Scale					
Lying & Rolling (L&R)	46	51	Standing	07	34
Sitting	48	59	Walking-Running (W&R)	01	48
Crawling & Kneeling (C&K)	14	37	Total score (in %)	44.5	88.0
CP-QOL					
Family & Friends	34	53	Pain & Bother	18	18
Participation	00	04	Final Questions	35	12
Communication	13	15	Access to service	24	18
Health	43	55	Your health	31	09
Special Equipment	00	03	Total score	203	195
Anthropometric measurements					
Height (in cm)	89	89.8	Chest Circumference (in cm)	47	47.2
Weight (in Kg)	9.6	10.4	Mid Upper Arm Circumference (Rt.) (in cm)	15	14.7
Head Circumference (in cm)	43	44.6	Mid Upper Arm Circumference (Lt.) (in cm)	15.2	14.9

DISCUSSION

The assessment was done for improvement in gross motor function, spasticity and or change in quality of life of the patient before and after the completion of the treatment protocol. Thus, change in gross motor function score indicates improvement in overall condition of the patient, whereas no change in spasticity and only mild improvement in quality of life of the patient were observed before and after the treatment. The involvement of the patient among family and friends, mild participation and communication were mildly improved; the overall health status of the patient was also improved. The disease Cerebral Palsy can be co-related with the various conditions mentioned in Ayurveda due to the aggravation of *Vata Dosha*. Thus, the procedures adopted in the present study are *Vata* pacifying in nature and have proven beneficial effects. *Abhaya Ghrita* mentioned in Kashyapa Samhita as *Lehana Yoga* may have both physical as well as mental effect in improving the condition of the patient. *Taila* preparations are said to be the best *Vata Shamaka* agents. *Ksheerbala Taila* used for *Abhyanga* and *Matra Basti* is *Brimhana* in nature as it possesses *Dugdha* with *Snigdha* and *Madhura Guna*, thus causing *Vata Shamana* and *Brimhana* of body. Initially *Udvartana* was done to create mild *Rukshana* in the body due to its *Sukshma Guna* so as to increase the

uptake of *Snehana. Matra Basti* is indicated in children for all *Vata* predominant conditions. According to the parents, the patient started standing without support, initiated walking with mild support, Started Climbing stairs with 2 feet at one stair while holding on and also the Improvement in quality and positioning during sleep, drooling of saliva, appetite and bowel pattern is also reported. The patient has started following commands. The overall improvement in the condition of the patient might be due to the procedures adopted in this study.

CONCLUSION

On the basis of observing sign and symptoms the disease cerebral palsy can be correlated as *Vata Pradhana* condition mentioned in our classics in which procedure based therapy was found to be effective and safe in improving the clinical condition of the patient.

CONFLICTS OF INTEREST - None Declared.

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