

Study The Effect Of Dhanwanthara Thaila As Shiropichu And Abhyanga In Cerebral Palsy In Children Upto 8 Yrs.

Dr Preetham Pai

(Dept of kaumarabhritya, Bharti vidyapeeth Deemed university college of Ayurved, Pune, India)

Abstract:

Background: Cerebral palsy is a non-progressive neurological disorder with motor disability, speech and auditory impairment and mental retardation.

Objectives: The main aim of the study is to evaluate the efficacy of Shiropichu (instillation of oil on the scalp) and abhyanga (whole body oil massage) with Dhanwantaram thailam in cerebral palsy in children up to the age of eight years. The study is also aimed at assessing the stability of the effect of the procedure suggested.

Material and methods: A randomized controlled trial was conducted. 20 patients up to the age of 8 years were randomly selected and divided into two groups study and control. Patients in the study group received shiropichu for 30 days and abhyanga for 15 days with dhanwanthara thaila. Patients in the control group received no treatment. Both the group received physiotherapy.

Results: Significant improvement was seen in the trial group in achieving head holding, and standing milestones when compared to the control group.

Conclusion: Dhanwanthara thaila is effective in achieving head holding and standing motor milestones in patients of cerebral palsy.

Keywords: cerebral palsy, neurological disorder, shiropichu, abhyanga, dhanwanthara thaila, motor milestones

I. Introduction

Cerebral palsy is a non progressive but crippling neurological disorder of children. The patient suffers from predominant motor disability and postural coordination disturbances along with varying degrees of mental, visual, auditory and speech disorders¹. The treatments available are mainly supportive in nature. Ayurveda has explained various treatments for conditions like cerebral palsy and considering the clinical experience of the department in successfully treating cerebral palsy it was decided to study the effect of dhanwanthara thaila (medicated oil) as shiropichu (instillation of oil on the scalp) and abhyanga (whole body oil massage) in cerebral palsy in children upto 8 years.

II. Aim And Objectives

The main aim of the study is to evaluate the efficacy of Shiropichu and abhyanga with Dhanwantaram thailam in cerebral palsy in children up to the age of eight years. The study is also aimed at assessing the stability of the effect of the procedure suggested

Hypothesis

Shiropichu and abhyanga with Dhanwantara thaila reduces signs and symptoms Cerebral palsy due to its vatasamana effect (alleviating vata dosha) is the concept of the study.

Research design

Randomized controlled trial

Inclusion Criteria

Children suffering from cerebral palsy up to 8 years of age were selected

Exclusion criteria

Cerebral palsy cases suffering from epilepsy, and on Allopathic treatment were excluded from the study.
Children suffering from acute infections.

Research setting

The study was carried out at kaumarabhritya Opd, Bharti Ayurved hospital. The patients selected from the outpatient department of the hospital were randomly selected for the study. The study drug, Dhanwanthara thailam was procured from a reputed pharmacy.

Research population

The reference population is children affected with cerebral palsy up to the age of eight years in Maharashtra State. Source population is the children affected with cerebral palsy up to the age of eight years in Maharashtra attending the kaumarabhritya opd of BhartiAyurved Hospital.

Sampling

The children were selected on the basis of inclusion criteria and randomly divided into two groups study and control The study group received shiropichu and abhyanga with Dhanwanthara thaila. The control group was withheld from the trial drug. The total sample population, of specific nature, constitutes 20 children affected with cerebral palsy. As per the anticipation of the higher efficacy of the .trial drug in professional practice and the comparatively less prevalence of the disease in the source population, a small sample size is decided.

Ethical considerations

The project has been approved by the ethical committee of the institution. An informed consent was obtained from the parents before recruiting the patient into the trial.

Intervention:

Patients of cerebral palsy who fit in the inclusion criteria were randomly selected and divided into two groups study and control. The study group patients received shiro pichu (instillation of oil on the scalp)) and abhyanga (whole body massage with oil.) with dhanwanthara thaila for a period of 30 and 15 days respectively. Patients in the control group did not receive any treatments. Both the groups received physiotherapy for a period of 30 days. Patients were followed for one month after the treatment. Patients were assessed at 15 days, 30 days of treatment and after follow up.

Technique of data collection

Based on the inclusion Criteria patients were selected and thoroughly interrogated, history collected and was noted in a specially designed case paper. It included mode of onset, a etiology, antenatal, perinatal and post natal history, family history, gross and fine motor development, past illness, clinical manifestations, physical and systemic findings. In Cerebral palsy developmental delay is a common clinical presentation. Therefore detailed history of fine and gross motor development was observed. Antenatal, natal events was taken in detail. Stethoscope, measuring tape, knee hammer, thermometer, was used as aids in collection of data by the researcher in the department. Quantitative data was collected using different assessment criteria's such as motor power of muscle using the MRC scale, graded response of the developmental mile stones, speech etc. such Data obtained from the responses of the patients will be compared and statistically analyzed for the efficacy of Shiropichu and abhyanga with Dhanwantharathaila in Cerebral Palsy

Assessment criteria

Grading of milestones

Table 1 Head holding

| Grade | Head holding |
|-------|---|
| 0 | No head holding at all |
| 1 | Head erect and steady momentarily |
| 2 | Supine lifts head when pulled up by arms |
| 3 | Elevation arms lifting chest |
| 4 | Holds head steady while mother moves around |
| 5 | Head balanced always |

Table 2 Sitting

| Grade | Sitting |
|-------|--|
| 0 | Not sit at all |
| 1 | Sit momentarily |
| 2 | Sit 30 seconds or more leaning forward |
| 3 | Sit with child back straight |
| 4 | While sitting can turn around |
| 5 | Raises to sitting position without support |

Table 2 Standing

| Grade | Standing |
|-------|--|
| 0 | Does not stand at all |
| 1 | Stand momentarily holding on to furniture or other forms of support. |
| 2 | Take few steps while both hand supported |

| | |
|---|---|
| 3 | Can stand along while legs apart |
| 4 | Come to standing position with support of stool |
| 5 | Without support can take few steps. |

Sample Size

A sample size of total 20 was selected considering the prevalence of the disease and OPD admissions of the patients in Bharti Ayurved Hospital

Statistical Methods

Mann Whitney U test and Wilcoxon signed rank test were used to statistically analyse the results. For between group comparison, we used Mann Whitney U test. For statistical analysis in each group Wilcoxon signed rank test were used.

III. Observation And Results:

Table 1

| Head Holding | Mean | | Wilcoxon Signed Rank W | P-Value | % Effect | Result |
|---------------|------|------|------------------------|---------|----------|--------|
| | B.T. | A.T. | | | | |
| Control Group | 4.50 | 4.50 | .000b | 1.00 | 0.00 | NS |
| Trial Group | 2.60 | 4.00 | -2.041a | 0.04 | 53.85 | S |

Using Wilcoxon signed rank test, P-Value for Control group is more than 0.05 hence there is no significant change observed. P-Value for trial group is less than 0.05 hence significant change is observed in trial group.

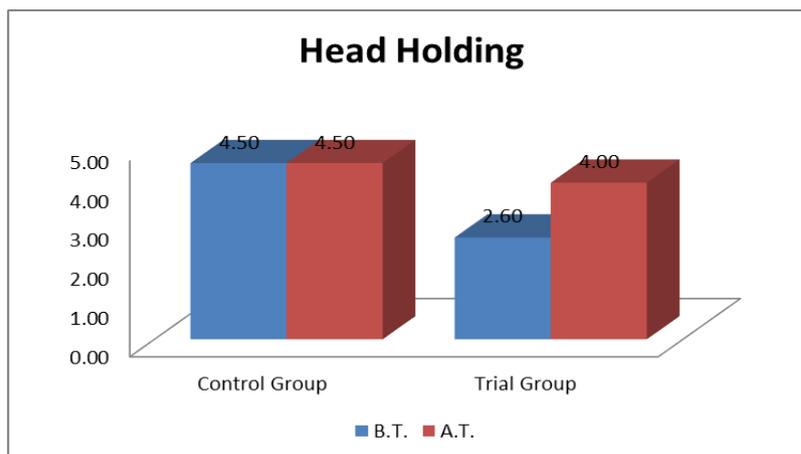


Fig: 1

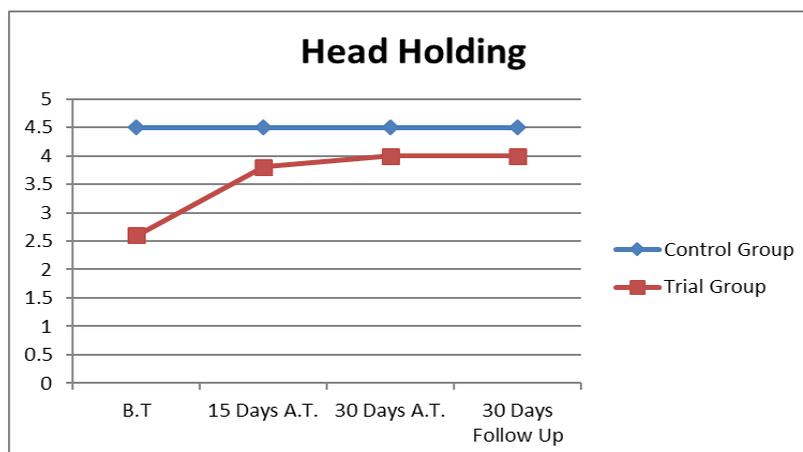


Fig: 2

Table 2

| Sitting | Mean | | Wilcoxon Signed Rank W | P-Value | % Effect | Result |
|---------------|------|------|------------------------|---------|----------|--------|
| | B.T. | A.T. | | | | |
| Control Group | 3.40 | 3.40 | .000b | 1.00 | 0.00 | NS |
| Trial Group | 3.00 | 3.20 | -1.000a | 0.32 | 6.67 | NS |

Using Wilcoxon signed rank test, P-Value for Control group is more than 0.05 hence there is no significant change observed. P-Value for trial group is more than 0.05 hence no significant change is observed in trial group.

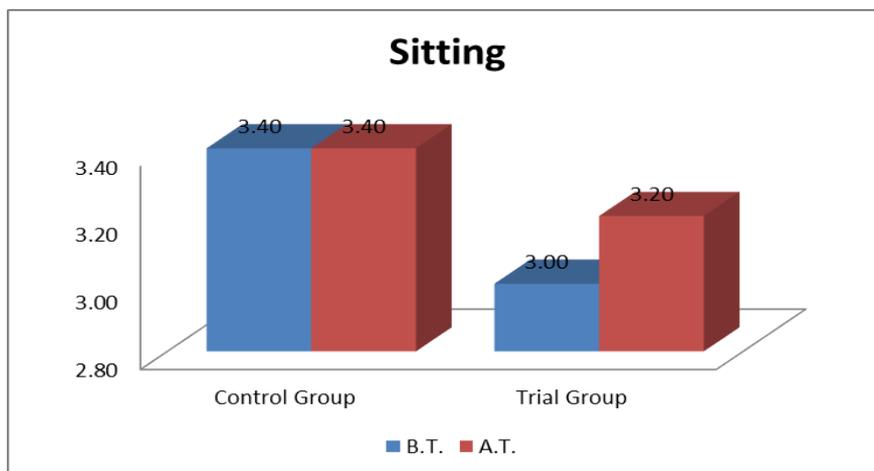


Fig: 3

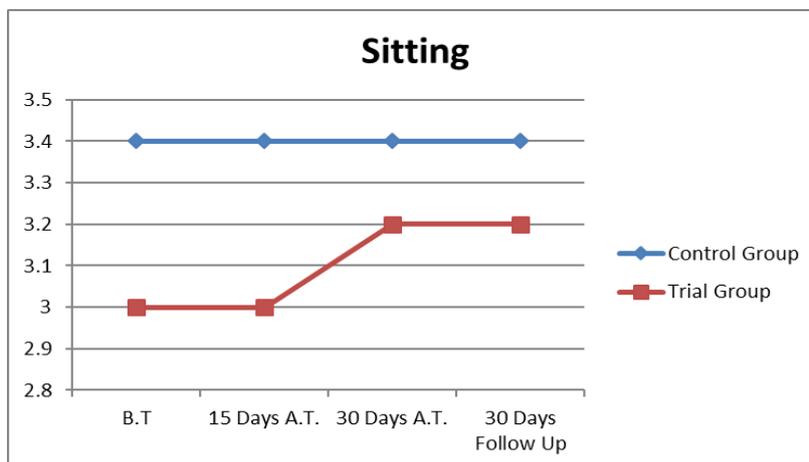


Fig: 4

Table 3

| Standing | Mean | | Wilcoxon Signed Rank W | P-Value | % Effect | Result |
|---------------|------|------|------------------------|---------|----------|--------|
| | B.T. | A.T. | | | | |
| Control Group | 0.90 | 1.30 | -1.414a | 0.16 | 44.44 | NS |
| Trial Group | 1.50 | 2.60 | -2.232a | 0.03 | 73.33 | S |

Using Wilcoxon signed rank test, P-Value for Control group is more than 0.05 hence there is no significant change observed. P-Value for trial group is less than 0.05 hence significant change is observed in trial group

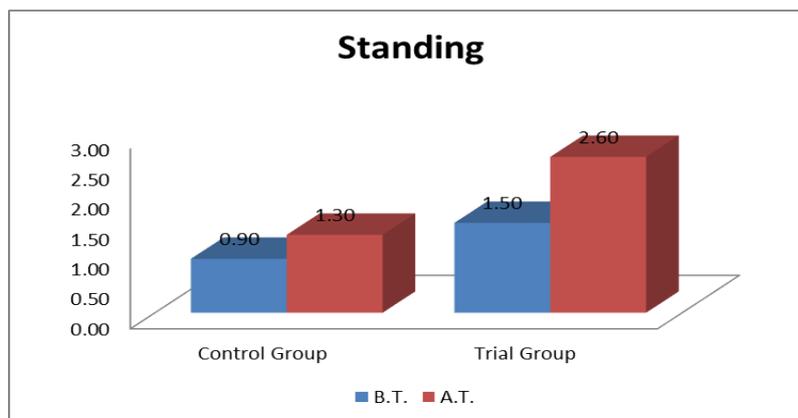


Fig: 5

IV. Discussion

Cerebral palsy is a non progressive neurological disorder which results in delay of motor milestones, speech impairment, vision abnormalities, and mental retardation. Hence, such a child is totally dependent on its parents. Cerebral palsy is classified into 5 on the basis of topography as 1.quadruplegia 2.diplegia 3.double hemiplegia 4.hemiplegia 5.monoplegia.

The symptoms and signs of cerebral palsy are similar to the symptoms of vata vyadhi as mentioned in ayurvedic classics. In vata vyadhi- treatments such as bahya snehana (external oleation), abhyanthara snehapana (internal oleation therapy) sodhana (purificatory measures) are mentioned². Since in cerebral palsy shirogata majja is affected, snehana (oleation) has to be done to the shiras (Head) Hence shiropichu is selected in this study. Since this is a vatavyadhi affecting the whole body, whole body snehana is done. Dhanwanthara thaila is specially indicated in bala roga and it subsides vata and majja vitiation³. Hence shiropichu and abhyanga is done with dhawanthara thaila. After 30 days of shiropichu and 15 days of abhyanga treatment significant improvement has been observed in the head holding and standing motor milestones. There was no significant improvement for sitting in the trial group. This might be due to smaller study group.

V. Conclusion

- Cerebral palsy can be co-related with vata vyadhi as mentioned in ayurvedic classics.
- Shirogata majja is affected in this disease. Hence treatments to the shiras which are vata hara such as shiropichu, shiro basti are effective⁴.
- Symptoms are similar to vata vyadhi hence whole body treatments such as abhyanga, dhara are found to be effective.
- The treatments shiropichu and abhyanga has shown significant improvement in head holding and standing motor milestones.
- Further studies are needed with larger study group to show significant improvement in sitting milestones.

Acknowledgement

I gratefully thank the Chancellor Dr Patangrao kadam, Bharti vidyapeeth deemed university and Vice chancellor Prof Dr Shivaji rao kadam for providing the support to conduct the research. I am indebted to help and support provided by Dr Abhijith Patil, Principal, Bharti vidyapeeth Deemed university college of Ayurved; Dr Asmita Wele, Dean, Bharti vidyapeeth Deemed university college of Ayurved; Dr Shubangi khatkar medical director, Bharti vidyapeeth Medical Foundation's Ayurved Hospital; Dr Nandgaonkar HOD, Dept of kaumarabhritya; Dr R H Gujarathi Asso Professor, Dept of Kaumarabhritya. The funds for the research were provided by Bharti Vidyapeeth Deemed university, pune.

References

Books

- [1]. Achar's text book of pediatrics, 4th edition. Swarna rekha bhattacharya (Ed). (universities press (India) Pvt limited, himayatnagar, Hyderabad)
- [2]. Acharya Charaka. Charaka Samhita, chikitsa sthan 28/75, 76. (Chaukambha surbharati prakashan, oriental publishers and distributors Varanasi)
- [3]. Acharya vaghbhat. Astanga hriday, chikitsa sthan 21/81. (Chaukambha surbharati prakashan, oriental publishers and distributors Varanasi)
- [4]. Acharya vaghbhat. Astanga hriday chikitsa sthan 21/17 (Chaukambha surbharati prakashan, oriental publishers and distributors Varanasi)