



MANAGEMENT OF SPASTIC CEREBRAL PALSY WITH DIPLEGIA (PANGU) OF ADULT WITH PANCHAKARMA: A CASE STUDY

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ABSTRACT A 31 yrs female diagnosed with CP, complaining of unable to stand without support, unable to walk, pain in low back and lower limbs, weakness of limbs, difficulty in sitting from 3years was brought by relatives on wheelchair. There was diminished cognitive function & visual impairment. Considering Cerebral Palsy; spastic diplegia type in an adult case as a Pangu, one of the Vatavyadhi, based on signs and symptoms, a case was managed according to general guidelines laid by Sushrutacharya. Management:- Two sittings of Panchakarma along with internal medications. Panchakarma- Erandmuladiyapanabasti, Sneha dhara and Shirobhyanga. Internal Medications-Tryodashangugullu, Godantibhasm, Muktapisti, Avipattikarchurna, Ashwagandharista, Brahmrsayan. Results:- Patient was able to walk with support after first sitting and without support with antalgic gait after second sitting. Straight leg rise(SLR) test which was not possible to perform initially was 45 degree in both limbs. Increased muscle tone comes to normal. Patient could sleep for 5-6 hrs which initially was hardly 2hrs as she got significant pain relief.

KEYWORDS : Spastic Cerebral Palsy, adult, Pangu, Panchakarma

INTRODUCTION-

Nearly 15-20% of physically disabled children are affected by Cerebral Palsy (CP). In India, the estimated incidence is around 3/1000 live births. Cerebral palsy is the most common motor disability in childhood. The topographic classification of CP is monoplegia, hemiplegia, diplegia and quadriplegia. Diplegia is the commonest form at 30% – 40%, hemiplegia is 20% – 30%, and quadriplegia accounts for 10% – 15%. In an analysis of 1000 cases of CP from India, it was found that spastic quadriplegia constituted 61% of cases followed by diplegia 22%(1). Spastic CP is the commonest and accounts for 70%-75% of all cases, dyskinetic for 10% to 15% and ataxic for less than 5% of cases^[1].

Cerebral palsy is already a condition that directly impacts one's movement and flexibility. Aging tends to compound these symptoms and effects. 25% of people with cerebral palsy who are able to walk as children will lose this ability as they get older^[2]. Moreover Individuals with CP may have pain that can be acute or chronic, and is experienced most commonly in the hips, knees, ankles, and the upper and lower back. Individuals with spastic CP may have an increased number of painful sites and worse pain than those with other types of cerebral palsy^[3].

The term Vatavyadhi indicates the specific disorders occurring due to vitiation of VataDosh in one way or the other. Whenever Vata gets vitiated due to various etiological factors, it enters all Srotasas (the empty channels) of the body and get lodged at the site of 'Khavaigunya'^[4] resulting in Dhatu Kshaya (Degenerative condition), by which Nervous tissues supplying the affected parts lack proper nutrition & gets deactivated.

Considering Cerebral Palsy; spastic diplegia type in an adult case as a Pangu^[5], one of the Vatavyadhi, based on signs and symptoms, was managed according to general guidelines laid by Acharya Sushrut^[6].

CASE REPORT-

A 31 yrs female patient complaining of mentally retarded since birth, unable to stand without support, unable to walk, pain in low back and lower limbs, weakness of limbs, difficulty in sitting, moving hand by herself from 3years was brought by her relatives on wheelchair. History of present illness: According to patient's mother, she was asymptomatic 3 years back. Then she developed weakness and

difficulty in moving hands and she was unable to eat on her own. She could walk with support only when painkillers were given. There was diminished cognitive function & visual impairment as well but the major concern of her relatives was immobility and extreme pain she has to bear. She was taken to many health care providers without any significant benefit. History of past illness-According to patient's mother she was born with FTND at hospital with no history of birth asphyxia, birth trauma & obstructed labour, however she was born with extremely low birth weight (450gm). Patient was advised NICU admission but her parents refused and she was taken home against medical advice. Up to 7 year of age she also suffered from recurrent upper & lower respiratory infections. The condition is progressive in nature associated with diminished cognitive functions & delayed milestone. She started to walk and speak at the age of 7 year. Family history-The patient also has the family history of the same condition in her third sibling

O/E CLINICAL FINDINGS

Vitals: B.P.-120/80, P/R- 84bpm, R/R- 18/min, Temp- 99 degree Fahrenheit

PREVIOUS INVESTIGATIONS PATIENT CAME ALONG :

Hb-12.4gm/dl, RBC-4.76m/cumm, Vit. D3-4.52mg, Vit B12-258pg/ml, Alkaline phosphate-745.2 Blood Sugar fasting-115mg/dl, MCH-26.1, Serum Iron-208.4ug/dl

TABLE-1 DASHVIDHA PARIKSHSA

Dashvidha Parikshsa	
Prakriti	Vatapradhanpittaj
Vikriti	Prakratissamsamveta
Sara	MadhyamSarata of Rasa and Rakta, Heenasarata of Mamsa, Meda, Asthi, Majja
Samhanan	Alpa
Pramana	Madhayam
Satmaya	Madhayam
Ahara shakti	Madhayam
Vyayamshakti	Alpa
Vaya	Yuva

ASHTAVIDHA PARIKSHA

Nadi-73/minutes, Mala-Samyak, Jivha -Coated, Mootra- Pale yellow,

Sabda-VikratSparsh- Mradu, Anushna,Druk-Aatur,Aakrati-Sthula

MANAGEMENT:-

Date of admission –
First sitting 08/9/17- 26/9/17; (18 days) therapy was performed as below

1. PANCHAKARMACHIKITSA

I) Erandamuladiyapanabasti ii)Sneha Dhara iii)Shiroabhyanga

2. ABHYANTARCHIKITSA (ORAL MEDICATION)

i) Tryodashang guggulu-2tab ii) Godanti bhasm-500mg + Mukta pisti-250mg + Avipattikar churn-5gm iii) Ashwagandharista-15ml iv) Brahma rasayan-5gm at vyanodanakaal (twice a day after lunch and dinner)

Second sitting 23/10/17-30/9/17; (7 days)therapy was performed as below sitting

1) PANCHAKARMA CHIKITSA

I.) Erandamuladiyapanabastiii)Sneha Dhara
iii) Shiroabhyanga

About Basti:- It is a therapeutic enema, primarily used to treat Vata disorders. Numerous preparations of Bastis are described in various basic Samhitas of Ayurveda, according to disease conditions.

About Sneha Dhara:- It is a type of external oleation in which a stream of various medicated oils is poured on affected part of the body by one hand and at the same time the massage is done with other hand for specific time period. The oil to be used is made lukewarm and the temperature is maintained throughout the procedure.

About Shiroabhyanga:- It is a head massage with basic oils like Coconut oil, Sesame oil or medicated oil for certain time period. In VataKapha condition lukewarm oil is used.

2. ABHYANTARCHIKITSA (ORAL MEDICATION)

i) Vatari guggulu-2tab ii) Godanti bhasm-500mg + Avipattikar churn-5gm iii) Ashwagandharista-15ml iv) Brahm rasayan-5gm at vyanodanakaal (twice a day after lunch and dinner)

TABLE-2 SUBJECTIVE AND OBJECTIVE ASSESSMENT

S.N.	Local examination	Before treatment	After first seating	After second seating
1	SLR	Unable to perform	20 Degree	45 Degree
2	Lesegue's test	Unable to perform	-Ve	-Ve
3	Knee jointCrepitus	Right Left +ve +ve	Right Left +ve +ve	Right Left -ve -ve
4	Muscle tone	Increased	Normal	Normal
5	Muscle power	Right Left U/L 2 3 L/L 3 2	Right Left 2 3 L/L 3 3	Right Left 3 3 L/L 4 4
6	Deep tendon reflexes	Right Left	Right Left	Right Left
	Knee	Diminished Diminished	↓ed ↓ed	↓ed ↓ed
	Elbow	Diminished Diminished	↓ed ↓ed	↓ed ↓ed
	Ankle	Normal Normal	Normal Normal	Normal Normal
7	Hand movement	Absent	Absent	Absent
8	Sleep hours	2 hour	4 hour	5-6 hour
9	Bed sores	Present	Absent	Absent
10	Gait	Patient on wheel chair	Walking with support	Walking without support(Antalgic gait)
11	Pain	Moderate pain	PartiallyImproved	Markedly Improved

TABLE-3 ERANDA MULADI YAPANA BASTI

Sanskrit name	Botanical name	proportion
Kwathdravya		
Erandamula	Ricinus communis	5gm
Shati	Hemidesmus Indicus	5gm
LaghuPanchamoola (Shaliparni, Prushniparni, Bruhati, Kantakari, Gokshur)		5gm
Rasna	Pluchea lanceolate	1gm
Ashwagandha	Withaniasomnifera	
Punarnava	Boerhaviadiffusa	1gm
Devdaru	Cedrus deodar	1gm
Guduchi	Tinosporacordifolia	1gm
Kalka drvya		
Satpushpa	Anethumsowa	5gm
Musta	Raadiaspinosa	
Rasanjana		
Indrayava	Holarrhenaantidysentrica	
Yavani	ApiumGraveolens	
Bilva	Aegle marmelos	
Pippali	Piper Longum	
Vacha	Acoruscalamuss	
Other ingredients		
MurchitaTil tail	Sesame oil	20ml
Goghrita	Cow Ghee	20gm
Saindava	Rock Salt	5g
Madhu	Honey	40gm
Godugdha	Milk	160ml
Water		640ml

DISCUSSION-

The case diagnosed as 'Pangu', one of the Vatavyadhi, was treated following basic principle for Dhatukhayjanya Vatavyadhi taking in consideration vyadhivastha^[9]

The patient was apparently over weight due to vikrutmedovruddhi with alpasamhanana and dhatu shaithilya. Looking at her history right from birth, no hospitalization in spite of low birth weight, frequent URTI and LRTI, impaired cognitive function, delayed milestones (started walking at the age of 7 yrs), indicating dhatukshayavastha. Yapana Basti are described in detail by Acharya Charak, while describing management of conditions arising due to not observing 'AshtamahdoshkaraVarjaVishhay' after Shodhan. One of these eight is Maithun (Intercourse) which if not refrained from, can lead to Kshayaja disease conditions. YapanaBastis are primarily indicated to treat Kshayaj conditions. ErandmooladiYapan was chosen as patient was sukumar. SarvangaSnehadhara and Shiroabhyanga were followed as Snehana and MruduSwedanaupakrama.

In oral medication. Trayodashangaguggulu,^[9] is indicated in Katigraha (Pathological condition pertaining to low back), SnayugataVata (Pathological conditions due to vitiated Vata invading muscles), Khanjavata (Pathological condition leading to difficulty in walking). All these conditions of Vatavyadhi are having proximity with symptoms of this patient. Ashwagandgarishta^[10] is well known for providing nutrition to nervous tissue. Also it is effective in fatigue, weakness, depression, anorexia, sleeplessness, vertigo, memory loss. Rasayana effect was achieved with Brahma Rasayana^[11] which improves intelligence, memory immunity and aging. AvipattikarChurna^[12] was given as Anulomana. PravalPishti^[13] and GodantiBhasma^[14] are asthiposhak (good for bones).

Thus all three procedures viz.(ErandmooladiYapanabasti, SarvangaSnehadhara and Shiroabhyanga) along with oral medication synergistically brought about the reversal of pathogenesis as follows VataPrakrutavastha- Restoration of Jatharagni – Restoration of Dhatvagnimandya – Dhatu poshan leading to gradual dhatu sarata reducing shaithilya - Dhatu poshan at the site of pathogenesis – Relief in Pangu condition.

CONCLUSION-

As there was significant pain relief and improvement in functional

disability with Panchakarma therapy, it can be concluded that Panchakarma therapy is effective to improve the quality of life in adult patients with cerebral palsy which obviously is helpful for wellbeing of the entire family of that patient.

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