Review Article

www.ijrap.net

(ISSN Online:2229–3566, ISSN Print:2277–4343)

IMPORTANCE OF MATRA BASTI CHIKITSA IN CHILDREN WITH CEREBRAL PALSY: A REVIEW

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Received on: 29/8/26 Accepted on: 29/9/26

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DOI: 10.7897/2277-4343.175192

ABSTRACT

Cerebral Palsy is the most common Neurodevelopmental disorder. (NDs) are types of disorders that influence how the brain functions and alter neurological development, causing difficulties in social, cognitive and emotional functioning. There are many different types of NDs = Attention Deficit Hyperactive Disorder (ADHD), Autism Spectrum Disorders, Cerebral Palsy, Communication Disorders, Intellectual Disabilities, learning disorders, etc. NDs do not have any clear cause. Both biology and environment play a role. Epigenetics is one of the causes of NDs. NDs are more prevalent in males than females. In Ayurveda, no single condition or disease exactly matches CP. Classical signs and symptoms of CP will fit the criteria of the Vaat Vyyadhi spectrum. Basti (medicated enema therapy in Ayurveda) offers key health benefits, including detoxifying the body, balancing Vata dosha and improving digestion. Matra Basti is a gentle Ayurvedic oil enema therapy used to manage Cerebral Palsy by pacifying Vata dosha, reducing muscle stiffness and nourishing nerve tissues. It involves administering small, safe doses of medicated oils like Ksheerbala taila or Masha taila.

Keywords: Neurological disorder, Cerebral Palsy, Matra Basti, Ksheerbala taila.

INTRODUCTION

CP is defined as 'non-progressive neuro-motor deficit of cerebral origin due to any antenatal, perinatal or early postnatal insult to the developing brain.[1] The prevalence of CP is 2.95 per 1000.[2] Depending on the extent, site and timing of neurological injury, CP ranges from minor motor incapacitation to crippling handicaps.

Some conditions explained in Ayurveda, which have shown similarity with CP, are Phakka (Acharya Kashyapa) a kind of nutritional disorder [3]

Pangulya (Acharya Sushrut) locomotor disorders, Jadtva (Acharya Sushrut) dumbness [4]. According to Acharya Charak - Ekanga Rog (monoplegia), Sarvang Roga (Quadriplegia), Pakshaghata (hemiparesis), Pakshavadha (hemiplegia), etc. [5] CP can correlate with Vaatvyyadhi. Acharya mentioned Basti as an Ardhyachikitsa. There are various types of Basti. One particular form of Basti is Matra Basti. Matra Basti is a safe, nourishing (Bruhaniya), strength-giving (Balya) Pediatric intervention that helps reduce muscle spasticity and improve motor development. As a micro-dose oil enema, it is considered gentle enough for children, requires no strict preparations (Purva karma) or restrictions and is administered to pacify local and systemic Vata. We can prefer any siddha taila or ghrita for this. Kashyapa equated Basti Karma with Amrutam because of its wide application in children and adults.[6] Basti's area of effect is the complete body and its main seat of action is Pakvashay.[7] All the relevant texts of Ayurveda and contemporary science were explored to evaluate the impact of Matra Basti in enhancing the quality of life in children diagnosed with Cerebral Palsy.

Indication of Matra Basti in children

1. Child with C.P. suffering from dominant or aggravated Vata disorder.
2. Chronic Constipation
3. General Physical Weakness
4. Developmental Delay.
5. Neurological Disorder.
6. Digestive problems
7. General Debility

MATRA BASTI

It is the type of Sneh Basti. It is termed so because the dose of Sneha used is much less than in Sneha Basti.[8] Sneha is the best Dravya to control the Vata Dosh. Sneha contains Guru, Snigdha properties that are opposite to the qualities of Vata Dosh so according to Samanya Vishesh Siddhanta it pacifies Vata. Therefore, Snehan basti is the most specific Basti Karma for Vata Vyadhi.[9] The term Matra Basti consists of two conjoined words. The word Matra is used in many contexts with different meanings, such as measures of any kind, quantity, size, duration, number, degree, and units of time and movement. In this context, Matra is considered the unit of measure, i.e. Basti Dravya quantity, as per Arundutta, "Matra Shabdasthara Pramanarthaha." [10] Matra Basti is beneficial both as a preventive and curative therapy. It is especially effective in treating disorders linked to aggravated Vata, including constipation, lower back pain, gout, arthritis, Sciatica, and neurological disorders.

Instruments for matra basti

Disposable Syringes, Simple rubber catheter, Sterile Gloves

Dose of basti according to age

I calculated the doses of various types of Basti using references from Acharya Charakacharya and Sushrutacharya.

Charak Chikitsya Sthan 3/ 28, 31,32 [11]
Charak Siddhi Sthana 3/31-32
Sushrut Chikitsya Sthan 35/18 [12]

Age-wise dose of basti

Age in Years	Niruh Matra [In Pal]	Niruh Matra [In ml.]	Anuwasan Matra [In ml.]	Matra Basti [In ml.]
01	01	40	10	2.5
02	02	80	20	05
03	03	120	30	7.5
04	04	160	40	10
05	05	200	50	12.5
06	06	240	60	15
07	07	280	70	17.5
08	08	320	80	20
09	09	360	90	22.5
10	10	400	100	25
11	11	440	110	27.5
12	12	480	120	30
13	14	560	140	35
14	16	640	160	40
15	18	720	180	45
16	20	800	200	50

Method of administration of Matra Basti

This step is very important – it needs theoretical as well as practical skill. It has three steps

Poorva Karma

Patient should be fully examined with detailed history taking. Snehan and Swedan should be given to the patient before basti. Breakfast should be given. After passing urine and stool, the patient is asked to lie down on the table

Pradhan Karma

All Basti material should be taken. According to age, tail should be taken in a disposable syringe. The proper number of simple rubber catheters should be attached to the syringe. The tip of the catheter should be smeared with some oil or lubricant, then medicated oil is pushed in catheter to remove all air bubbles. Then introduce it up to 4 Angula (about 4 centimetres) in the anal region. Keep the syringe in same position. Basti material should go in. Instruct the patient to take deep breaths through his open mouth. Complete oil should not be administered into the patient's colon; otherwise, air may enter the colon.

Pashchat Karma

After that, the patient should lie on his back and should be gently thumped three times on each of the soles – over the buttocks. Patient should be in a head-low position. Massage should be applied to the soles of the patient. As Matra Basti does not produce any complications and does not have any instructions in Ahara and Vihara there is no Samsarjana kram (Dietary restrictions). The patient is advised to eat normal food and perform routine duties.

Retention of Matra Basti: The normal Pratyagamana Kala (time taken by the Basti drug to come back out of the rectum) of Sneh Basti is 3 Yama, meaning 9 hours. Matra Basti is a type of Sneh Basti, so its time will also be 9 hours. There is no harm if Matra Basti remains in the body because the dose is very small, which can get easily absorbed in the body without coming out.[13]

ACTION OF BASTI

According to Ayurved

Various Acharyas have given information regarding Basti.

Table 1: Action of Basti according to Acharya Charak [14]

Nabhi Pradesh ---- Kati, Parshwa, Kukshi --- Mixes with faecal and morbid matter --- Evacuation of Purish and Dosha.

Table 2: Action of Basti according to Acharya Vagbhata

The site of Basti is Pakwashay --- Basti transfer its veerya for nourishment of Apanvayu --- Basti makes the vitiated Apanvayu to move in downward direction and cures the multitudes of diseases --- After normalcy of Apanvayu ---- Nourishment of Samanvayu --- Nourishment of Vyanvayu --- Nourishment of Udanvayu --- Nourishment of Pranvayu --- By normalising all five types of Vaat --- Normalizes all types of Dosh --- Vyadhinash.

The Sun is far from the earth; still, it absorbs the water content from objects on earth. Similarly, Basti removes Dosha from head to toe.[15] When the cloth is dipped in water containing dye, it only retains the colour but not the dye. Similarly, Basti expels only morbid matter from the body.[16]

The main site of Basti is Colon, i.e. Pakwashay. Pakvwashay is the site of Purishdhara Kala. Grahani is the site of Pittadhara Kala. By Dulhan, Purishdhara Kala and Asthidhara Kala are the same and Pittadhara Kala and Majjadhara Kala are also the same. So Basti acts on Purishdhara kala – Pittadhara Kala – Asthidhara Kala – Majjadhara Kala.[17] So, in all types of Neurodevelopmental disorders, including Cerebral Palsy, Basti treatment is useful, and it definitely improves the quality of life of the patient.

According to Modern Science

The action of Basti includes

Theory of action through Vascular route, Nervous route and biofeedback mechanism. Mechanism of transport across the intestine by transcellular and paracellular pathway. This includes passive diffusion, facilitated diffusion, active transport, carrier-mediated transport, endocytosis – pinocytosis. The rectum has a rich blood supply, and Basti drugs can easily cross the rectal mucosa. Because they are water-soluble, short-chain fatty acids can be absorbed into the blood and allow direct diffusion from epithelial cells into the capillary blood of the villi.

Basti Dravya – Honey, Saindhav, Sneha, Kalka, Kashay form an emulsion through churning; the large- and medium-chain fatty acids may break into short-chain fatty acids, which can be easily absorbed. The active principles of drugs used in Basti get absorbed into systemic circulation by passing hepatic metabolism.

Matra Basti is the subtype of Anuvasan Basti. It stays longer in the colon, so the chances of absorption are higher. It stimulates the release of bile from the gallbladder, leading to the formation of conjugate micelles. These are absorbed through passive diffusion; this happens more specifically to the Sneha of Anuvasan, which contains short-chain fatty acids. The organs are interconnected at the molecular level. Molecular incidents are transformed at the cellular level to the tissue level and then the organ level. Each molecule of the body is connected with the mother molecule of the body in a direct or indirect way. Basti is in colon/intestine, but it will affect other systems also. It is proven that Basti nourishes the bacterial flora, which helps produce Vit B, Vit K and inhibits the production of Pyruvic acid. This helps to prevent degeneration of the myelin sheath of the spinal cord. Drugs in Basti like Honey, Saindhav, and milk are rich sources of minerals; when absorbed through the large intestine and transferred to other systems, they help cure diseases of other systems, e.g., Ulcerative Colitis. Pinocytosis: It is the mechanism for transport of molecules across membranes. Absorption of Basti

emulsion occurs by diffusion. i.e. transport of molecules from higher concentrations to lower concentrations. There are many factors responsible for absorption like solubility of Basti Dravya, temperature of the drug, proper poorvakarma like snehan – swedan, size of molecules, vascularity, PH. Basti facilitates lubrication and clearing of the intestinal wall and ensures normalised blood circulation, which helps minimise organ ischemia. [18]

Action by enteric nervous system (ENS)

The gut has its own mind, the 'ENS', just like the larger brain. This system sends and receives impulses, records experiences and responds to emotions. This brain consists of a sheath of neurons embedded in the gut wall and contains 100 million neurons, more than the spinal cord and peripheral nervous system combined. Basti may act all over the body by this system. 95% of the body's serotonin is found in the bowel. Serotonin (5-Hydroxy tryptamine/5HT) is a neurotransmitter that strongly influences the brain and supports functions like sleep, appetite, memory, mood, behaviour, and pain. Basti may act on serotonin levels and help to pacify diseases related to neurological, psychological, pain, etc.

Changes after administration of Matra Basti and effect on Nervous System

After administration of Matra Basti or Sneh Basti, fatty acid and protein content increases, as shown in biochemical investigations. When Matra Basti is administered, Pyruvic acid levels decline and there is an increase in Vit B12 level. The lower the Vit B12 level in the body, the greater the risk of neurological disorders and digestive problems. This clarifies the rationale for Matra Basti management in children with cerebral palsy. The colon contains numerous bacterial flora that produces Vit B and Vit K. Researchers have found that this flora grows abundantly under Sneh Basti management. Visceral afferent stimulation activates the hypothalamus-pituitary-adrenal axis and the autonomic nervous system, releasing neurotransmitters and hormones. Anuvasan and Matra Basti have the property of regulating sympathetic activity. It decreases adrenaline and noradrenaline secretion and help in the balance of the autonomic nervous system.[19]

CONCLUSION

An exact correlation to Cerebral Palsy is not directly available in the Ayurvedic Text. However, considering the Ayurvedic disease classification and its features, Cerebral Palsy can be compared with Vatavyadhi or Vatavikar (diseases of the nervous system)**.** Basti is the ardha chikitsa of Vatavyadhi**.** Matra Basti is a holistic, rejuvenating therapy suitable for children with Vata disorders. Classical Basti Netra can be replaced with a catheter and syringe in children with no difference in results. This review highlights its value and versatility as a treatment but also emphasises the need for more scientific research and clinical trials.

REFERENCES

1. Agrawal M. Textbook of paediatrics. 1st ed. Mumbai: Bhalani Publishers; 2009. P 488-490.
2. Chauhan A, Singh M, Jaiswal N, Agarwal A, Sahu JK, Singh M. Prevalence of cerebral palsy in Indian children: a systematic review and meta-analysis. Indian J Pediatr. 2019;86(12):1124-1130. doi:10.1007/s12098-019-03024-0. PMID:31300955.
3. Bhishagacharya S, editor. Kashyap Samhita (Kashyapa Samhita): Vidyotini Hindi commentary. 6th ed. Varanasi: Chaukhamba Sanskrit Sansthan; 1998. P 139.
4. Sharma A, editor. Sushrut Samhita. Vol. 1. Varanasi: Chaukhamba Surbharati Prakashan; 2015. P 469.
5. Joshi YG. Charak Samhita with Chakrapani Tika. Vol. 2. Pune: Vaidyamitra Prakashan; 2016. P 631.
6. Sharma H, translator. Vriddajeevaka: Kashyapa Samhita. 4th edition. Varanasi: Chaukhamba Sanskrit Sansthan; 1988. Khila Sthana 8/54.
7. Agnivesh. Charak Samhita. Vol. 1. With Charak Chandrika Hindi commentary. Edited by Brahmanand Tripathi. Varanasi: Chaukhamba Sanskrit Prakashan; 2004. Siddhi Sthana 1/31.
8. Agnivesh. Charak Samhita. Vol. 2. With Charak Chandrika Hindi commentary. Edited by Brahmanand Tripathi. Varanasi: Chaukhamba Sanskrit Prakashan; 2004. Siddhi Sthana 4/52-53.
9. Agnivesh. Charak Samhita. Vol. 2. With Charak Chandrika Hindi commentary. Edited by Brahmanand Tripathi. Varanasi: Chaukhamba Sanskrit Prakashan; 2004. Siddhi Sthana 4/29-31.
10. Vagbhata. Ashtanga Hridaya. With Sarvanga Sundara commentary by Arundatta and Ayurveda Rasayana of Hemadri. Edited by Hari Sadashiva Shastri. Varanasi: Chaukhamba Surbharati Prakashan; Year unknown. Sutra Sthan 16/25.
11. Joshi YG. Charak Samhita with Chakrapani Tika. Vol. 2. Pune: Vaidyamitra Prakashan; 2016. P 816-819.
12. Shastri KA, editor. Sushrut Samhita. Part 1. Reprint ed. Varanasi: Chaukhamba Sanskrit Sansthan; 2018. Chikitsa Sthana. P 191.
13. Vagbhata. Ashtanga Hridaya. With Sarvanga Sundara commentary by Arundatta and Ayurveda Rasayana of Hemadri. Edited by Hari Sadashiva Shastri. Varanasi: Chaukhamba Surbharati Prakashan; Year unknown. Sutra Sthana 19/29-30.
14. Shastri K, Chaturvedi G, editors. Caraka Samhita of Caraka. Vol. 2. 1st edition. Varanasi: Chaukhamba Bharati Academy; 1981. Siddhi Sthana, Kalpanasiddhi Adhyaya, 3/1/40. P 972.
15. Sharma A., editor. Sushruta Samhita of Sushruta. Vol. 2. Varanasi: Chaukhamba Surbharati Prakashan; reprint 2018. Chikitsa Sthana, Netra Basti Pramana Prabhaga Chikitsa Adhyaya, 2/35/27. P 447.
16. Shastri K, Chaturvedi G, editors. Caraka Samhita of Caraka. Vol. 2. 1st edition. Varanasi: Chaukhamba Bharati Academy; 1981. Siddhi Sthana, Kalpanasiddhi Adhyaya, 3/7/65. P 1042.
17. Shyamkuwar MK. Panchakarma Sangrah. 1st edition. Nagpur: Dhanwantari Books and Stationers; 2013. P 303.
18. Shyamkuwar MK. Panchakarma Sangrah. 1st edition. Nagpur: Dhanwantari Books and Stationers; 2013. P 305.
19. Nampoothiri MR, Mahadevan L. Principles and practice of Vasti. 1st edition. Derisanamcope: Y. Mahadeva Iyer's Sri Sarada Ayurvedic Hospital; 2007. P 231.

Cite this article as:

Patole LN and Swami TY. Importance of Matra Basti chikitsa in children with Cerebral palsy: A Review. Int. J. Res. Ayurveda Pharm. 2026;17(5):183-185. doi: http://dx.doi.org/10.7897/2277-4343.175192

Source of support: Nil, Conflict of interest: None declared

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