

EFFECT OF PANCHAKARMA CHIKITSA IN THE MANAGEMENT OF MULTIPLE SCLEROSIS: A CASE REPORTDr. Sushrut Deshpande^{1*} and Dr. Dnyaneshwar Padavi²¹PhD Scholar D Y Patil School of Ayurveda, Nerul, Navi Mumbai.²HOD & Professor D Y Patil School of Ayurveda, Nerul, Navi Mumbai.***Corresponding Author: Dr. Sushrut Deshpande**

PhD Scholar D Y Patil School of Ayurveda, Nerul, Navi Mumbai.

Article Received on 24/01/2024

Article Revised on 14/02/2024

Article Accepted on 06/03/2024

ABSTRACT

Autoimmune disease occurs when the immune system attacks self- molecules as a result of immunological tolerance breakdown to autoreactive immunological cells. Multiple sclerosis is one of the most prevalent autoimmune disorders causing neurological deformities of Central Nervous System characterized by demyelination, chronic inflammation, gliosis and neural loss. A 40 years old male patient was presented with Multiple sclerosis with Right Optic Neuritis since 2014. Patient was having left leg difficulty in walking, tingling at both legs, slurred speech, constipation for 6-8 months and right eye diminished vision, amnesia since 2014. Kurtzke Expanded Disability Status Scale was applied to assess the disability of the patient. Initially the score was 7.0 which reduced to 2.0 after the treatment. Patient was treated with internal medication and *Panchakarma* procedures like *Shirodhara* (~oil pouring on head), *Netra Tarpana* (~eye drops), *Snehana* (~ Olation), *Shalishastika Pinda Sweda* (~Sudation), *Pratimarsha Nasya* (~nasal drug administration), *Basti*(~therapeutic enemata) treatments. There was 90% relief in left leg difficult walking, tingling at both legs, slurred speech, constipation and amnesia. Right eye diminished vision was reduced by 30%. *Panchakarma* treatments and internal medication can play an important supportive role in maintenance of quality life in the patients of Multiple sclerosis.

KEYWORDS: Multiple sclerosis, *Panchakarma*, *Basti*, *Snehana*, *Swedana*.**INTRODUCTION**

Multiple sclerosis is a chronic autoimmune inflammatory neurological disorder of central nervous system. In this disease, myelinated axons in CNS get demyelinated leading to focal areas of damage, axon injury, axon transection, neurodegeneration and subsequent scar or plaque formation. The course of Multiple sclerosis is highly varied and unpredictable. Etiologically it is thought to be autoimmune with susceptibility determined by genetic and environmental factors.^[1]

Manifestation of Multiple sclerosis commonly include weakness and/or sensory symptoms involving a limb, visual difficulties, abnormalities of gait and coordination, urinary urgency or frequency, and abnormal fatigue. Motor involvement can present as a heavy, stiff, weak or clumsy limb. Localized tingling, numbness, dead sensation are common symptoms. Optic neuritis can result in blurring vision, especially in the central visual field, often associated retro-orbital pain accentuated by eye ball movement. Involvement of brain stem can cause diplopia, vertigo, facial pain, numbness, weakness, hemi spasm or myokymia.^[2]

Considering the clinical features and presentation of patient, Multiple sclerosis can be compared with *Asthi Majja Gata Vata* (~disease of connective tissues like bones and bone marrow) as there is *Santata Ruk* (~constant pain), *Aswapna* (~insomnia), *Chimachimayana* (~tingling).

CASE REPORT

A 40 years old male patient was presented at *Panchakarma* OPD, was diagnosed with Multiple Sclerosis since 2014 and was showing symptoms as follows-

- | | | |
|--------------------------------|---|----------------|
| 1) Left leg difficult walking | } | for 6-8 months |
| 2) Both legs tingling | | |
| 3) Constipation | | |
| 4) Slurred speech | | |
| 5) Right eye diminished vision | } | since 2014 |
| 6) Amnesia | | |

Considering the presentation of the patient, Ayurvedic diagnosis was made as *Asthimajjagata vata*.^[3]

Physical examination was done by Kurtzke Expanded Disability Status Scale which signifies the physical disability present in Multiple Sclerosis patients. It showed initial score of 7.0 indicating inability of patient to walk beyond approximately 5 meters even with aid,

essentially restricted to wheel chair, unable to communicate, eat, swallow.^[4]

Treatment

Patient was treated with *Shamana chikitsa* and *Panchakarma Chikitsa* as follows-

Shamana chikitsa

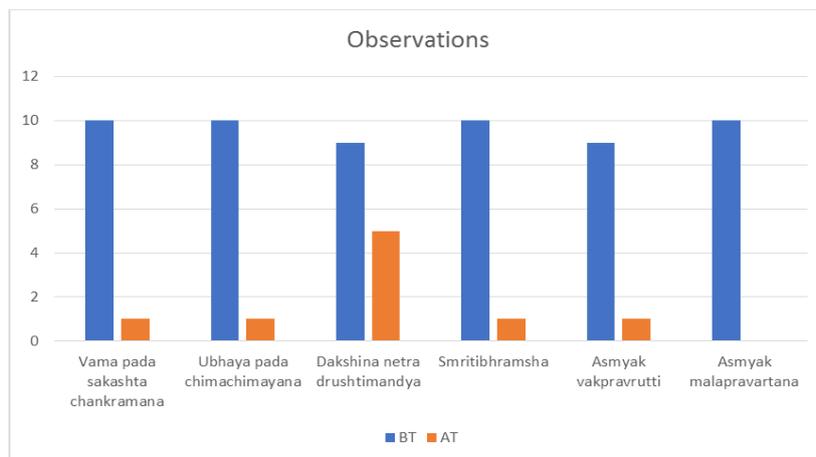
Sr. No	Drug Name	Pharmacy	Dosage	Kala And Anupana
1	<i>Bruhat Vata Chintamani</i>	<i>Dhootpapeshwar</i>	125mg	<i>Rasayane with Koshna Jala</i>
2	<i>Aamapachaka Vati</i>	<i>Rasamruta</i>	250mg	<i>Vyanodana with Koshna Jala</i>
3	<i>Laghumalini Vasanta</i>	<i>Rasamruta</i>	125mg	<i>Vyanodana with Koshna Jala</i>
4	<i>Gandhavini</i>	<i>Rasamruta</i>	250mg	<i>Vyanodana with Koshna Jala</i>
5	<i>Vatavidhwansa</i>	<i>Rasamruta</i>	125mg	<i>Vyanodana with Koshna Jala</i>
6	<i>Brahmi vati</i>	<i>Unjha</i>	250mg	<i>Vyanodana with Koshna Jala</i>
7	<i>Gandharva Haritaki Churna</i>	<i>Rasamruta</i>	2gm	<i>Nishi with Koshna Jala</i>

Panchakarma Chikitsa

Sr. No	Karma Name	Dravya	Duration
1	<i>Sarvanga Snehana</i>	<i>Chandan bala Lakshadi Taila</i>	19 days
2	<i>Sarvanga Swedana</i>	<i>Shali Shashtik Pinda Sweda</i>	19 days
3	<i>Shirodhara</i>	<i>Brahmi Taila- 400ml + Tila Taila- 400 ml</i>	11 days
4	<i>Pratimarsha Nasya</i>	<i>Panchendriya Vardhana Taila (2 Bindu)</i>	12 days
5	<i>Matra Basti</i>	<i>Tila Taila – 60 ml + Saindhava- 2gm</i>	6 days
6	<i>Niruha basti</i>	<i>Mustadi Yapana Basti- 250 ml</i>	2 days
7	<i>Netra tarpana</i>	<i>Triphala Ghruta</i>	10 days

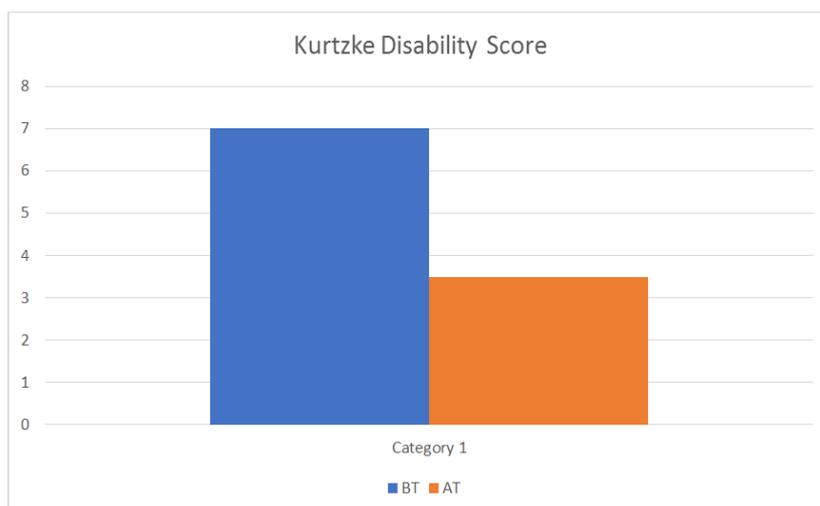
OBSERVATIONS

Sr. No	Complaint	BT	AT	% Relief
1	<i>Vama Pada Sakashta Chankramana</i>	10	1	90
2	<i>Ubhaya Pada Chimachimayana</i>	10	1	90
3	<i>Dakshina Netra Drushtimandya</i>	9	5	44
4	<i>Smritibhramsha</i>	10	1	90
5	<i>Asamyak Vakpravrutti</i>	9	1	90
6	<i>Asamyak Malapravartana</i>	10	0	100



Kurtzke score

BT	AT
7.0 - Indicating inability of patient to walk beyond approximately 5 meters even with aid, essentially restricted to wheel chair also unable to communicate, eat, swallow.	3.5 - indicating fully ambulatory patient without aid, self sufficient, up and about some 12 hours a day despite relatively severe disability of one Functional System grade 4 (Others 0 or 1), or combination of lesser grades exceeding limits of previous steps, able to walk without aid or rest greater than 500 meters.



DISCUSSION

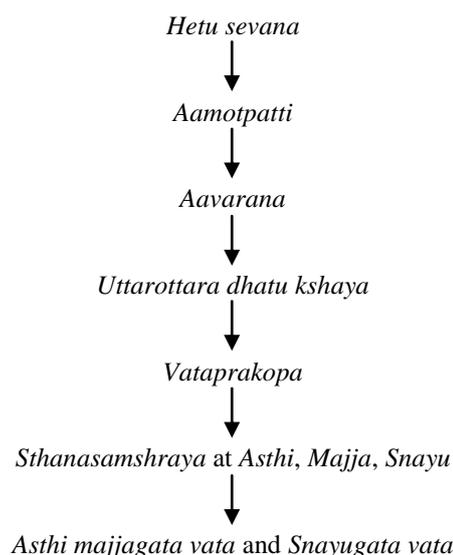
Multiple sclerosis is an autoimmune disorder caused due to environmental and genetic factors. An immune hypothesis is supported by increased levels of activated T lymphocytes in CSF and increased immunoglobulin synthesis within CNS. Initial CNS inflammation in Multiple sclerosis involves entry of activated T lymphocytes across the blood brain barrier.

These recognize myeline derived antigens on the surface of nervous system's antigen presenting cells. The resulting inflammatory cascade releases cytokines and initiates destruction of oligodendrocyte myeline unit by macrophages.^[5]

Initial acute clinical deficit is caused by the effect of inflammatory cytokines on transmission of nervous impulse rather than structural disruption of myeline and may explain rapid recovery of some deficits and probably benefit from corticosteroids. In long term, accumulating myeline loss reduces the efficiency of impulse propagation or complete conduction block contributing to sustained CNS function loss.

In Multiple sclerosis, the immune system is attacking myeline sheath which is lipid rich substance that surrounds the nerve cells, it can be correlated to *meda sambhavaja snayu*. Explanation about Multiple sclerosis is not directly available in *Ayurvedic* texts. Any nervous system disorder comes under '*Vata vydhi*' domain. *Vata dosha* having its own properties '*gati*' (movement) and '*gandhana*' (knowledge perception) are generally attributed to nervous system.^[6]

Nidana can be *kshayajanya* or *avaranajanya*. The concept of autoimmunology can be considered under purview of *Aama* which leads to *Aavarana* and later on *dhatu kshaya*. In the primitive stages of *Aama*, it can be easily cured, but if this stage persists for more duration, it leads to chronicity. This causes inflammation or allergic reactions that can lead to auto-immune diseases.



In present case, *Vama Pada Sakashta Chankramana*, *Ubhaya Pada Chimachimayana* are produced due to both *Asthi majjagata vata* and *Snayu gata vata Asmyak Vakpravrutti*, *Asamyak Malapravartana* are due to *Asthimajjagata vata*.^{[7],[8]}

DISCUSSION ON CHIKITSA

Sarvanga Snehana, Sarvanga Swedana

Abhyanga is the process in which the body surface i.e. integument undergoes manual pressure by various techniques and various substances to provide not only relaxation but also pacification of several types of diseases.

Abhyanga is basically responsible for

- 1) It increases blood supply to the area where *Abhyanga* is applied. It also increases venous return to the main stream of blood by some special strokes applied. It also increases cardiac output. Thus, this process is helpful for muscular strength and also pain relieve. By this process, *Shoola*, *Chimachimayana*, *Daurbalya* reduced due to

Mamasa dhatu bala vardhana, Asthi dhatu bala vardhana and Majja dhatu bala vardhana.^[9]

- 2) *Abhyanga* is also responsible for lymphatic drainage and lymphatic movement. Lymph is extracellular fluid containing amino acids, glucose, fats, hormones, enzymes, salts and lymphocytes. Lymph also contains large amount of tryptophan and albumin. The amount of tryptophan and albumin increases in blood after lymphatic massage. This increases serotonin levels that helps to fight anxiety and depression. Hence, by *Abhyanga*, irritability, loss of memory, insomnia of patient reduced significantly.

Effect of *swedana*

- 1) *Swedana* increases blood flow, oxygen supply, nutrients, antibodies, WBCs and reduces inflammation.
- 2) Dilatation of capillaries increases the exudation of fluid in tissue and followed by absorption of waste products from affected area as a result of increased blood flow.^[10]
- 3) Thus by the effect of *Swedana*, inflammation reduced and that helped to reduce the progression of the Multiple sclerosis.

Effect of *Basti*

- 1) *Tila Taila Matra Basti* is helpful in pacification of vitiated *Vata Dosha* as *Basti* is said to be the best treatment in *Vata Doshaja Rogas*.
- 2) The *Sneha* used in *Basti* is mainly composed of triglycerides, fatty acids, phospholipids.
- 3) Short chain and medium chain fatty acids are present in ghee, milk and other natural oils used in *Basti*. These two fatty acids are absorbed through wall of colon as they do not require bile salts or pancreatic lipase or micelle formation for absorption.
- 4) Other substances used in *Basti* may act upon colon bacteria producing short chain fatty acids like butyric, propionic, ethanoic, valeric acids.
- 5) Short chain fatty acids are rapidly absorbed and stimulate NaCl and fluid absorption.
- 6) In a study related to *Basti*, it was seen that *Basti* reduces levels of pyruvic acid in blood and increases levels of vitamin B1- Thiamine. Vitamin B1 is helpful for nervous system, digestive system, circulatory system.
- 7) Thiamine deficiency is responsible for degeneration of Myeline sheaths of nerve fibers of both central and peripheral nervous system which is seen in Multiple sclerosis. It is also responsible for indigestion, constipation, anorexia, gastric atony which are major features of Multiple sclerosis.^[11]
- 8) *Snigdha, Ushna guna* of *Tila Taila* pacified *Vata Dosha* which reduced pain sensation generated due to *Vata Dosha*. *Guru* and *Sara Guna* reduced *Laghu* and *Chala Guna* of *Vata Dosha*, thus reducing symptoms like *Chimachimayana, Sakashta Chankramana, Aspashta Vakpravrutti*.

- 9) *Anulomana* property of *Matra Basti* caused normal flow of *Prana* and *Udana vayu*, helping to reduce symptoms like *Smriti Bhrmsha, Aspashta Vakpravrutti, Sakashta Chankramana, Asamyak Malapravartana*.

- 10) Thus *Matra Basti* is helpful to resolve symptoms of Multiple Sclerosis.

Effect Of *Mustadi Yapana Bsti*

- 1) It is stated in one study that, *Mustadi Mustadi Yapana Basti* can reduce the levels of IgG and IgM levels in blood in significant amount which clearly denotes the immune modulation effect of *Basti* treatment.^[12]
- 2) Being auto immune disease in Multiple sclerosis, this reduction in levels of IgG and IgM levels can prove to be effective as a preventive measure.

CONCLUSION

Panchakarma treatment with *Sarvanga Snehana, Sarvanga Swedana, Basti, Shirodhara Nasya* and *Shamana Chikitsa* is effective in the management of Multiple Sclerosis. The symptoms like *Vama Pada Sakashta Chankramana, Ubhaya Pada Chimachimayana, Dakshina Netra Drushtimandya, Smritibhrmsha, Asamyak malapravartana, Asamyak Vakpravrutti* showed significant change on Visual Analogue Scale. There was significant change observed in Kurtzke disability scale also.

REFERENCES

1. Walker B.R, Colledge N.R, Ralston S.H, Penman I.D edited Davidson's Principles and Practice of Medicine – London, Edited in 1952, 22nd edition in 2014, Published by Churchill Livingstone, Elsevier.
2. Kasper D, Brunwald E, Fauci A, Hauser S, Longo D, Janson J.L edited Harrison's Principles of Internal Medicine- United States Of America- Edited in 1958, 16th edition in, 2005, Published by McGraw Hill Companies, United States Of America.
3. Vd Tripathi B. edited Charaka samhita Chakrapani tika Chikitsa sthana Vatavyadhi chikitsa adhyaya/ 41 Chaukhambha Sanskrit Samsthana - Varanasi Reprinted in, 2009; 991.
4. Vd Tripathi B. edited Charaka samhita Chakrapani tika Chikitsa sthana Vatavyadhi chikitsa adhyaya/ 158,36 Chaukhambha Sanskrit Samsthana - Varanasi Reprinted in, 2009; 989.
5. Vd Tripathi B. edited Charaka samhita Chakrapani tika Chikitsa sthana Vatavyadhi chikitsa adhyaya/ 23 Chaukhambha Sanskrit Samsthana - Varanasi Reprinted in, 2009; 938.
6. Vd Tripathi B. edited Charaka samhita Chakrapani tika Chikitsa sthana Vatarakta chikitsa adhyaya/ 20,21 Chaukhambha Sanskrit Samsthana - Varanasi Reprinted in, 2009; 986.
7. Vd Tripathi B. edited Charaka samhita Chakrapani tika Chikitsa sthana Vatarakta chikitsa adhyaya/ 13-15 Chaukhambha Sanskrit Samsthana - Varanasi Reprinted in, 2009; 984.

8. Vd Tripathi B. edited Charaka samhita Chakrapani tika Chikitsa sthana Vatarakta chikitsa adhyaya/ 36 Chaukhambha Sanskrit Samsthana - Varanasi Reprinted in, 2009; 989.
9. Vd Tripathi B. edited Ashtanga Hridaya Sutra sthana 1/ 25 Chaukhambha Sanskrit Samsthana- Varanasi Reprinted, 2012; 10.
10. Vd Tripathi B. edited Ashtanga Hridaya Sutra sthana 11/ 28 Chaukhambha Sanskrit Samsthana- Varanasi, 20.
11. www.ijpba.com- International Journal of Pharmaceutical and Biological Archives 2012, 3(4): 893-896- Pharmacodynamic understanding of *Basti*: A contemporary approach- Gyanendra D. Shukla, Shweta Pandey, Anup B. Thakkar.
12. Dr. Shamkuvar M.- Panchakarma Sangraha- Nagpur, editd in 2013 reprinted in 2016- Published by Dhanvataree Publishers, Nagpur.
13. Dr. Kar P.K – Principles And Practice Of Panchakarma- Varanasi, edited in 2013- Published by Chaukhamba Sanskrit Samsthana, Varanasi.