



Review Article

MULTIPLE SCLEROSIS-AYURVEDIC MANAGEMENT AND PREVENTIVE ASPECTS

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ABSTRACT

Multiple Sclerosis (MS) is a chronic progressive disease with a variety of cognitive, motor and sensory deficits. It is characterised by demyelination of axons of the brain and spinal cord where the patient presents with the complaints of blurred or double vision, lack of coordination, loss of balance, numbness and tremors throughout the body or extremities with weakness, muscle spasms etc. In Ayurveda, Multiple Sclerosis can be correlated to *Snayusada* or the aggravation of *Vata* in *Snayu*. Modern treatments like immunosuppressant, corticosteroids, stem cell therapy are highly expensive when compared to Ayurvedic management. The scope of Ayurvedic Management and preventive aspects mainly concentrates on improving the quality of life and decrease dependency of patients. The objective of this review is to evaluate the clinical utility of the Ayurvedic medicines for Multiple Sclerosis. Clinical trials by Ayurvedic experts suggest that Ayurvedic treatment processes and preventive measures (Life style management and recommended diet) may reduce the risk of Multiple Sclerosis. Here I briefly explain the current literature of Multiple Sclerosis, modern and Ayurvedic views, Ayurvedic medicines usually given in Multiple Sclerosis cases with a focus on designing prevention and treatment protocol.

KEYWORDS: Multiple sclerosis, MS, Disease overview, Choice of drugs, Treatment, Preventive aspects, *Snayusada*.

INTRODUCTION

Ayurveda is ever green science and an art of life, where the healthy and ill alike, are more concerned with the maintenance and promotion of positive health as well as curing the diseases. The management criteria should be addressed to quality improvement in the life of patient, avoiding drug dependence and adverse effect. As far as Allopathic treatment is concerned, excess usage of corticosteroids make the MS patients more ill-health. Ayurveda offers the safe and effective form of therapy for Multiple Sclerosis. Still, MS symptoms can negatively affect quality of life. Suicide rates among patients with MS are higher than average. [1] So for improving the quality of life in MS patients, along with Ayurvedic therapies Psychological counselling should also be incorporated.

Prevalence

MS is the most common autoimmune disorder of the central nervous system. As of 2010, the number of people with MS was 2–2.5 million (approximately 30 per 100,000) globally, with rates varying widely in different regions. It is estimated to have resulted in 18,000 deaths that year. In Africa rates are less than 0.5 per 100,000, while they are 2.8

per 100,000 in South East Asia, 8.3 per 100,000 in the Americans, and 80 per 100,000 in Europe. Rates surpass 200 per 100,000 in certain populations of Northern European descent. The number of new cases that develop per year is about 2.5 per 100,000. MS usually appears in adults in their late twenties or early thirties but it can rarely start in childhood and after 50 years of age. The primary progressive subtype is more common in people in their fifties. Similar to many autoimmune disorders, the disease is more common in women, and the trend may be increasing. As of 2008, globally it is about two times more common in women than in men. In children, it is even more common in females than males, while in people over fifty, it affects males and females almost equally.[2]

Disease Overview

Modern view

Multiple Sclerosis is characterized by chronic inflammation and selective destruction of CNS myelin; peripheral nervous system is spared. Pathologically, the multifocal scarred lesions of MS are termed plaques. Etiology is thought to be auto

immune, with susceptibility determined by genetic and environmental factors.

Clinical features: Onset may be abrupt or insidious. Some patients have symptoms that are so trivial that they may not seek medical attention for months or years. Most common are recurrent attacks of focal neurologic dysfunction, typically lasting weeks or months, and followed by variable recovery; some patients initially present with slowly progressive neurologic deterioration. Symptoms often transiently worsen with fatigue, stress, exercise or heat. Manifestations of MS are protean but 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, "pins and needles", and "dead" sensations are common. Optic neuritis can result in blurring of vision, especially in the central visual field, often associated retro-orbital pain accentuated by eye movement. Involvement of the brainstem may result in diplopia, nystagmus, vertigo, or facial pain, numbness, weakness, hemi spasm, or myokymia (rippling muscular contractions). Ataxia, tremor, and dysarthria may reflect disease of cerebellar pathways. Lhermitte's symptom, a momentary electric shock-like sensation evoked by neck flexion, indicates disease in the cervical spinal cord.^[3]

Neurologists agree that patients may be grouped into four major categories based on the course of disease^[4]:

1. Relapsing-remitting MS: The most common form, affecting about 85% of MS patients. It is marked by flare-ups (relapses or exacerbations) of symptoms followed by periods of remission, when symptoms improve or disappear.
2. Primary progressive MS: affects approximately 10% of MS patients. Symptoms continue to worsen gradually from the beginning. There are no relapses or remissions, but there may be occasional plateaus. This form of MS is more resistant to the drugs typically used to treat the disease.
3. Secondary progressive MS: may develop in some patients with relapsing-remitting disease. For many patients, treatment with disease-modifying agents helps delay such progression. The disease course continues to worsen with or without periods of remission or leveling off of symptom severity (plateaus).
4. Progressive-relapsing MS: a rare form, affecting fewer than 5% of patients. It is progressive from the start, with intermittent flare-ups of

worsening symptoms along the way. There are no periods of remission.

A study was conducted on Therapeutic exercises for those moderately affected with MS in the School of Medicine, University of Glasgow. Three consecutive studies were conducted by the author. In the first study, a 12-week therapeutic exercise was delivered to twenty people with MS, whilst 12 people acted as control groups who received usual care. Clinical outcomes were assessed at five time points over the intervention and 12 month follow up period of the study. The results were not statistically significant, however the calculated effect indicated positive effects on areas related to physiological (strength, fatigue), functional (mobility, balance and daily activities) and psychological status of participants. In the second study, three inter-related themes emerged. [a] Exercise class, which developed a bridge to allow participants to realize [b] Benefits of the class, helping them to overcome [c] Barriers to exercise. The result suggested that benefits to participating in exercise and the exercise intervention included social support and symptom improvement. Barriers to exercise included perceived psychological factors, symptoms and lack of service. In the third study, test re-test reliability of four outcome measures used in the first study, calculations were done to establish the clinically significant change and precision of the outcome measures. The test re-test reliability of the outcome measures was good, with the calculated clinical change and precision of the outcome measures in those moderately affected with MS highlighting the problems of assessing those with MS.^[5]

Ayurvedic view

In Ayurvedic system this may be considered as *Snayusadam* with *Nadibalakshayam*. As per some expert's opinion, we have to consider this as *Vatavikaram* with *Nadisadam*. Ultimately the *Dhatu* get damaged. Demyelination indicates

- *Majjadhatukshayam*^[6]- Decreased *Majja* causes *Asthisousharya* (osteoporosis), *Bhrama* (giddiness) and *Timiradarshana* (dimness of vision).
- *Kaphakshayam*^[7]- Decreased *Kapha* causes *Bhrama*, empty feeling of *Sleshmakshaya* (*Kapha* depots in the body), *Hridrava* (palpitation) and *Sandhishaitilya* (laxity of joints).
- *Ojakshayam*^[8]- Decreased *Oja* is due to anger, hunger, constant thinking, grief, exertion etc. leading to phobias, loss of strength, excessive thoughts, sensory disturbances, loss of complexion, confusion, increased dryness of the body and exhaustion.

All the above symptoms are commonly seen in MS patients. Here the treatment should be for *Vata samana* and *Nadidyothaka*.

Choice of drugs in MS cases

- *Dhanadanayanadikashayam*-Indicated in *Arditha* and *Akshepaka Vata* conditions.
- *Bhadradarvadikashayam*-Indicated in Painful conditions, *Kevala vata*.
- *Dhanwantharamkashayam*-Indicated in Neurological and Rheumatic problems.
- *Dasamoolamkashayam*-Indicated in vitiated *Vata kapha* condition.

All these *Kashayams* according to the symptoms of MS patients can be given with adjuvants like *Ksheerabalaavarthi*, milk, *Dhanwantharigulika*.

Single drugs for intake as *Chooranam* or *Palkashayam* (milk decoction)

- *Ashwagandha*
- *Jeevanthi*
- *Guduchi*
- *Yashtimadhu*
- *Vidari*

Treatment procedures

1. In MS cases prime importance goes to *Snehapanam* with *Rasnadi ghritha/Jeevantyadi ghritha/ Vidaryadighritha* (After *Snehapana*, if the patient seems to be *Kapha* dominant in nature and *pravarasatwa* we can conduct *Vamanakriya*, especially in *Avarana Vata* cases).
2. *Shirodhara* with *Rasnaditaila/ Mahamashataila/ Ksheerabalataila*.
3. *Ksheeradhara* with *Dasamoola+ Ashwagandha ksheerapaka*.
4. *Thalam* with *Jeevanthyadichoornam/ Vidaryadi choornam + Ksheerabala/ Sahacharadi 3 Avarthi*.
5. *Akshitarpanam* with *Triphala ghritha/ Jeevanthyadighrita*. This treatment procedure is adopted for the complaints of blurred vision in MS cases.
6. *Ksheeravasthi*^[9]

A study on the effect of Ayurvedic and Panchakarma Treatment in MS has shown significant improvement in pain, weakness and power loss. In that study, a 35 year old female presented with the complaints of pain, burning, stiffness and complete weakness (MPG zero grade) in lumbar region, loss of bowel control for 18 months. She was a diagnosed case of Multiple Sclerosis (Kurtzke Disability Grade eight). Ayurvedic correlation given to this case was *Asthi-Majjagatavata*. This patient was given internal medications like powders of *Ashwagandha* and *Shatavari* (each 5gms) along with 1 glass warm milk,

Chandraprabhavati (500mg) twice daily before food. *Mahayogarajaguggulu* (500mg.) is given with *Ashwagandh-arishta* (30ml) twice daily after food. The external therapies done for the patient was *Sarvanga Abhyanga* with *Bala Taila* and followed by *Shashtika Shalipinda sweda*. Patient also received two types of *basthi*. Initially patient received *Matrabasthi* for 26 days followed by *Yapanabasthi* for 17 days. After 15 weeks of I.P treatment, the patient was discharged. She was advised to continue oral medications and application of external oil for 2 months. After the first two weeks of I.P treatment, the patient had shown mild reduction in burning sensation, pain and stiffness of lower extremities but other symptoms were as such. After 1 month, there was moderate reduction in pain and stiffness of lower extremities. During the second month of I.P treatment, pain and stiffness in both lower extremities were very mild. Muscular power also improved to second grade. At the time of discharge, patient did not suffer from pain and stiffness of lower extremities. Muscle power improved to third grade. She could walk to 30meters with the help of crutches. Kurtzke EDSS score reduced to 6.5 indicating requirement of constant bilateral assistance (canes, crutches, and braces) and can walk about 20meters with outresting^[10].

On the basis of Physician's *Yukthi* and patient's condition medicines should be selected for doing therapy. Over use of *Ushna* and *Snigdha guna* are found to be having *Anupashaya* especially *ushna* promotes degeneration. Along with the treatment schedule advise therapeutic *Yoga, Pranayama, meditation* etc. These have predominant benefits in the results.

Preventive aspects of MS

Preventive aspects of Multiple Sclerosis are mainly aimed at arresting or slowing down the progress of the illness and avoiding symptoms.

Diet recommendations for Multiple Sclerosis

1. Take a balanced wholesome diet.
2. Eat organic food and totally avoid processed food.
3. For cooking purpose, use olive oil or coconut oil.
4. Snacks in between main meals should consist of fresh fruits, green leafy salads, legumes and nuts.
5. The best immune boosters include sweet potatoes, carrots, pineapple, papaya, mango, guava, banana, grape, hazel nut, walnut, apple, cashew, kidney beans, green beans, lentils, yogurt, avocado, pumpkin, garlic, ginger, spinach, oats, wheat germ, turmeric, safflower oil.
6. Avoid Caffeine, Smoking and Alcohol which all affects the nervous system.

Lifestyle recommendations for Multiple Sclerosis

1. Start the day with a glass of luke warm water as soon as you leave your bed. Drink 8 to 10 glasses of fresh water in a day.
2. Do all measures to reduce stress. Find best stress reducing activities like Yoga, Tai chi, Meditation or self-hypnosis and practice them regularly to manage stress and reduce your pains.
3. Sleep regularly: Sleep for at least seven hours each night so that your mind can be refreshed and your body can have the time it needs to repair tissues and joints.
4. Manage your time. Fatigue is a common sign of MS. So there are chances that you will try to complete too much work when you are feeling well. It will leave you feeling even more fatigued and stressed afterwards. Try to pace yourself.
5. Maintain a healthy weight. Obesity can cause inflammation in the body, which can activate the immune system leading to progression of MS.

CONCLUSION

In summary, the current evidence of the Ayurvedic clinical trials suggests that Ayurvedic treatments, life style and dietary modifications plays a key role in MS prevention and provide increased life expectancy. Both Ayurvedic and modern knowledge should be incorporated to execute a better treatment protocol. More researches are required in this field to describe further more treatments in patients with MS and their clinical utility has to be established.

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