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REVIEW ARTICLE

EFFECT OF AYURVEDIC AND PANCHAKARMA TREATMENT IN ASTHI MAJJA GATA VATA (PRIMARY PROGRESSIVE MULTIPLE SCLEROSIS): A CASE STUDY.

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SUMMARY

Multiple sclerosis is condition arising as sequel of demyelination of nervous tissue. It is recurring or chronically progressive leading to loss of sensory and motor functions. With immunosuppressant or cortico-steroids as only available treatment in modern sciences, *ayurveda* can be ray of hope. A 35 years old female was suffering from pain, burning, stiffness and complete weakness (MPG zero grade) in lumbar region and both lower extremities along with loss of sensation, loss of bowel-bladder control for 18 months. She was diagnosed case of multiple sclerosis (Kurtzke disability grade eight). MRI of brain showed small periventricular focus of demyelination in right corona radiata. Patient was diagnosed as a case of *asthi-majja gata vata*. Patient received ayurvedic treatment – *mahayogaraja guggulu* (500 mg) with *ashwagandharishta* (30 ml) twice daily, powders of *shatavari* and *ashwagandha* (each 5 gm) twice daily with milk and *chandra-prabha-vati* (500 mg) twice daily before food. Patient received *sarvanga abhyanga* with *bala-taila* and *shali-shashtika-pinda sweda*. Patient received *matra basti* with *rasnadi taila* (25 sittings), followed by course of *bruhatyadi-yapana basti* (16 sittings). Patient received treatment from August 2003 to December 2003. Patient showed significant improvement in pain, weakness and power loss. Muscle power improved from zero grade to third grade in both lower

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INTRODUCTION

Myelin acts as an insulating and protecting sheath that prevents loss of impulse propagating through the axon [1]. Since long it was thought that multiple sclerosis (MS) is a condition caused due to demyelination of neural tissue. However, it was later understood that demyelination is followed by secondary injury to the axons due to T cell cytotoxicity or the failure of the local target derived neurotrophic support from the death of oligodendrocytes producing myelin [2]. Current prevalence rate of MS is estimated as 5 – 20 per 100,000 population [3]. MS commonly affects middle aged women. Here is a case of primary progressive multiple sclerosis (PPMS), diagnosed as *asthi-majja gata vata* according to *ayurveda.* The patient received *ayurvedic* treatment along with *panchakarma* and showed marked remission in the symptoms.

CASE REPORT

A 35 years old female came to our out-patient department (OPD) with complaints of complete loss of power, muscular wasting and pain in both lower extremities, back pain, loss of sensation and control of bowel and bladder, burning and stiffness all over body since last 18 months. Patient started suffering from pain and tingling sensation in both lower extremities in the last two years for which temporary treatment from local doctors was taken. But the symptoms progressed gradually. Physical examination revealed that vitals (patient conscious, well oriented, pulse 84 beats per minute, blood pressure systolic 110 mm Hg, diastolic 70 mm Hg, respiration 16 per minute, respiratory and cardio-vascular system – within normal limits) were stable. Muscle power in both lower extremities was grade zero while in both upper extremities it was normal (grade five) indicating upper motor neuron lesion. Deep tendon reflexes of both knee and ankle showed exaggerated response, while plantar reflex showed dorsi-flexion of the toes. Routine blood and urine investigations were within normal limits (haemoglobin 12.5gram percent (gm%), white blood cells 9000 per cubic millimetre (cmm), blood sugar – fasting 93 milligrams per decilitre (mg/dl), post prandial 120 mg/dl). T-two weighted images of magnetic resonance scan (MRI) of brain done a week before, showed small periventricular focus of demyelination in right corona radiata suggestive of multiple sclerosis. According to Kurtzke expanded disability status scale (EDSS)[4] it was a case of grade 8.5 indicating, essentially restricted to bed or a chair, retains many selfcare functions and has effective use of arms.

Diagnosis

In view of the chronicity of symptoms (more than one year), demonstration of

dissemination of lesion in brain in periventricular region it was diagnosed clinically as a case of PPMS [5]. Though a subsequent MRI of brain or examination of cerebro-spinal fluid was necessary to confirm the diagnosis, it was not done due to poor financial status of the patient.

In view of *ayurveda* differential diagnoses considered were, *sira-gata vata*[6] and *asthi-majja-gata vata*[7]. In view of power loss (*bala kshaya*) and wasting of muscles (*mansa kshaya*) it was diagnosed as a case of *asthi-majja-gata vata.*

TREATMENT

Patient received *mahayogaraj gugglu* 500 milligram (mg) thrice day after food, *Chandra prabha vati* 500 mg thrice daily before food, both with warm water. Powders of *sharavari (Asparagus racemosus)* and *ashwagandha (Withania somnifera)* five gram (gm) each twice daily with 50 millilitres (ml) of milk was also advised. Patient also received *ashwagandharishta* in dose of 30 ml twice daily after food along with warm water. The treatment was continued for 15 weeks starting from September 2003. Patient also underwent *panchakarma* treatment that included application of medicated oil (*bala taila abhyanga*) and sudation using rice cooked in milk and decoction of *bala (Sida cordifolia)* (*shali shashtika pinda sweda*) of whole body. Patient also received two types of *basti* (medicated enema). Initially, patient received *matra basti* of 25 ml using *rasnadi taila* each day after lunch for 26 days. It was followed by *bruhatyadi yapana basti*[8] (total quantity of *basti* 150 ml) each morning on empty stomach for 17 days. Patient was discharged after 15 weeks of treatment and was asked to continue oral medications and application of *bala taila* to the whole body regularly for two more months. However, the patient was lost to follow up.

Treatment Outcome [Table 1]

After first two weeks of treatment patient showed mild reduction in pain and stiffness in both lower extremities and burning sensation, but other symptoms were similar. After four weeks of treatment pain and stiffness in both lower extremities were moderately reduced. Muscle power showed improvement to grade one (flickering of movement). After 10 weeks of treatment pain and stiffness in both lower extremities were very mild. Also, muscular power improved to grade 2 (movement present if gravity eliminated). Kurtzke EDSS score also reduced to 8.0. After 15 weeks of treatment patient did not suffer from pain and stiffness in lower extremities, muscle power improved to grade 3 (movement against gravity but not against resistance). Patient could walk up to 30 meters with crunches. Deep tendon reflexes of knee and ankle were normal. Kurtzke EDSS score reduced to 6.5

indicating requirement of constant bilateral assistance (canes, crutches, braces) and can walk about 20 meters without resting. Patient was discharged after 15 weeks of treatment and was asked to continue oral medications and application of *bala taila* to the whole body regularly for two more months. However, the patient was lost to follow up, hence further alteration in symptoms remains unknown.

Table 1: Treatment Outcome

Sr.	Timeline	MPG in lower extremities	Pain	Stiffness	Burning sensation	Bowel Bladder	Knee and ankle reflex	Kurtzke EDSS Score
1	Base line - August 2003	Grade 0	Severe	Severe	All over body	No sensation, no control	Exaggerated	Grade 8.5
2	2 weeks AT - Septeber 2003	Grade 0	Slightly reduced	Slightly reduced	Slightly reduced	No sensation, no control	Exaggerated	Grade 8.5
3	4 weeks AT - September 2003	Grade 1	Moderately reduced	Moderately reduced	Slightly reduced	No sensation, no control	Exaggerated	Grade 8.0
4	10 weeks AT - November 2003	Grade 2	Mild	Mild	Moderately reduced	No sensation, no control	Exaggerated	Grade 8.0
5	15 weeks AT - December 2003	Grade 3	Absent	Absent	Moderately reduced	Sensation present, no control	Normal	Grade 6.5

[AT- after treatment, MPG – muscle power gradation, EDSS – expanded disability status scale]

DISCUSSION

MS remains as a dreadful condition leading to major disability, dependant and poor quality of life, predominantly seen in young females. Though the causative factor is not yet identified, it is believed to be caused by combination of both, genetic susceptibility and non-genetic triggers[9]. The diagnosis of MS often becomes difficult as there is no one single diagnostic test, rather diagnosis is dependent on symptomatology along with MRI and/or CSF examination. With lack of absolute cure and partially effective conventional modern treatment, three out of four patients of MS receives alternative and complimentary treatment[10]. Though there is no resemblance of MS with one specific condition mentioned in *ayurveda*, in view of severe depletion of *mansa* (~muscular tissue) and *bala,* present patient was diagnosed as a case of *asthi-majja gata vata.*

Aim of treatment in this case was to improve quality of life and decrease dependency of the patient. *Mahayogaraja guggulu* is a famous classical medicine useful in relieving diseases caused by *vata,* especially those which are associated with severe depletion of body tissues (*dhatu kshaya*) due to its *balya* (strength promoting) and *rasayana* (rejuvenating) effects[11]. It makes the medicine drug of choice in conditions such as the present case. *Chandraprabha Vati* is also useful due to its *balya* (strength promoting) and *rasayana* (rejuvenating) effects and its action in the *apana* (lower parts of body) [12]. *Ashwagandha (Withania somnifera)* and *shatavari (Asparagus racemosus)* are well known for their effects in pacifying *vata* and *bruhana* (strength promoting) due to *snigdha* (unctuous), *madhura* (sweet) etc. properties.

Basti is the treatment of choice in *vata* ailments. In present case the patient was having loss of sensation and incontinence of bowel and bladder. Hence, administration of *basti* might not have been beneficial, as the patient would not be able to retain *basti*. So, to begin with, *basti* of *rasnadi taila* was administered in very small quantity – 10 ml. Quantity of oil in *basti* was increased gradually after *basti* was retained for 30 minutes (min) or more. It was observed that after treatment patient could feel sensation of bowel and bladder evacuation, which was absent at baseline.

Rasnadi taila contains *rasna (Pluchea lanceolate), guduchi (Tinospora cordifolia), bala (Sida cordifolia), shatavari (Asparagus racemosus)* and *ashwagandha (Withania somnifera).* The ingredients were chosen due to their common property – pacification of *vata.* Along with that some ingredients such as *ashwagandha* are well known for promoting strength of *mansa* and *majja*. *Guduchi* is beneficial due to its *tikta* (bitter), *snigdha* (unctuous), *tridoshahara* (pacifying of three *dosha)* effects.

Bruhatyadi yapana basti are one of the best possible treatments in such conditions. Due to its capacity to replenish all *dhatu* within lesser time and strengthening all *dhatu*, this treatment is useful in debilitating, emaciating conditions such as the present case.

Conventional modern treatment of MS includes use of corticosteroids, immunomodulators etc. These medicines are useful in treatment of MS, but can show partial effects. Hence it is high time to explore use of *ayurvedic* treatment in MS. This is an observation in a single case and further studies are necessary to prove efficacy of *ayurvedic* treatment in MS.

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