

Case Study: Yoga, Ayurveda and Holistic Lifestyle Alternatives for People with Multiple Sclerosis

Abstract:

Since my mother has Multiple Sclerosis (MS), and I am a Yoga Therapist, Holistic Health Educator and Ayurvedic Specialist, I have chosen to investigate how Yoga, Ayurveda and Holistic Lifestyle can be a framework to help people with this condition, the most common neurological disability of young adults that affects one in 400 people. (Recent research also reveals that approximately 8,000-10,000 children have MS and another 10,000-15,000 have experienced what may be symptoms of MS)

Introduction:

Ayurveda, the world's oldest comprehensive health care system, is known as the "Science of Life" or "Wisdom of Daily Living" that has been practiced for more than 5000 years. It is considered the "sister science" to Yoga and is one of the most recognized and widely practiced disciplines of alternative medicine in the West.

The study of Ayurveda includes herbs, nutrition/diet, psychology, and a profound philosophy that conjoins "mind, body, spirit" as a framework for Holistic Health and Wellness. It considers the biological aspects of life and its integration with social, ethical and spiritual issues of day-to-day living. Ayurveda imparts wisdom and practical knowledge of self-healing that anyone can learn.

Background and significance:

The allopathic definition of MS is an inflammatory, demyelinating, auto-immune disease of the central nervous system. The disorder displays marked clinical heterogeneity (consisting of dissimilar parts, elements or ingredients), meaning it shows up differently in everyone, making it difficult to diagnose and treat. In the past it was often misdiagnosed, and the attitude was that it was a "wastebasket diagnosis" because there wasn't anything they could do for the disease anyway. Now there are medications that are changing the course of the disease and allowing people to live more normal lives for longer periods of time and therefore the importance for proper diagnosis. With the improvement of diagnostic techniques, we see people getting diagnosed and on medications much earlier (younger) and we still don't fully know what the long term of it is, though we know the short term is that they are able to stay healthier for longer periods of time than in the past.

Unfortunately the medications come with a price. These drugs are very expensive and cause many negative side effects. The symptoms of MS are confusing to people and they often don't know what is them and what is the MS? There is a disconnect with daily rhythms and surrender to caregivers and the medical profession who has them running from doctor to doctor, from test to test and looking for answers outside of themselves about themselves. Their inability to discern what a healthy balanced body, mind and spirit is, often leads them to ask the question "is this my MS?" Fatigue is a major complaint and the way the medical profession has them spinning only adds to it, rather than offer them ways to rebuild their nervous systems, digestion and their life gone out of balance.

Allopathic, clinical diagnosis is based on demonstrating the dissemination of lesions of the central nervous system (CNS) in time and space, meaning the occurrence of a second clinical episode at a different site of the CNS. The risk of developing MS after an isolated clinical deficit is greater the

longer the follow-up period. The strongest prediction for the development of MS is the presence of asymptomatic white matter lesions on magnetic resonance imaging (MRI) of the brain. Diagnostic criteria for MS, (McDonald criteria), suggests that MRI evidence of dissemination of CNS lesions in time and space is sufficient for diagnosis even before clinical dissemination has occurred. Due to the clinical heterogeneity in patients with MS, the following terminology and subtypes have been created for further standardization. The classifications are:

1. Relapsing-remitting MS (RRMS) 85% of patients present with this form of the disease characterized by clearly defined disease relapses with full recovery or with sequent and residual deficit upon recovery. Not classified as a progressive form of the disease, but residual deficits can be established with each exacerbation.

2. Secondary Progressive MS (SPMS) 50% of patients with RRMS will transition into this sub-form, characterized by disease progression with or without occasional relapsing minor remissions and plateaus.

3. Primary Progressive MS (PPMS) Approximately 10% of the MS population presents disease progression from the onset with occasional plateaus and temporary improvements.

4. Progressive-relapsing MS (PRMS) The least common form is a progressive disease from the onset with acute relapses, with or without full recovery with periods between relapses characterized by continuous progression.

The natural history of the disease is that the majority of MS patients will exhibit a progressive neurological deterioration. About 50% will need to use a cane to ambulate safely within 10 years. About 90% have transitioned to a progressive form of the disease 25 years from the time of diagnosis and can be characterized as having substantial clinical disability. The timing of accrued disability is strongly influenced by the number of exacerbations during the early phases. Although clinically isolated syndrome (CIS) and RRMS are not classified as progressive forms, irreversible deficits can be established with each exacerbation and as such, contribute to persistent clinical impairment. Consequently, MS treatment should be initiated at the earliest possible time to prevent disability.

The aim of an effective therapy in MS is to reduce the frequency and severity of relapses, shorten their duration, limit side effects, relieve symptoms, prevent disability arising from disease progression, and promote tissue repair. Progress has been made during the last decade in treating MS, especially for RRMS. Unfortunately, treatment options for SPMS and PPMS/PRMS are limited. Benefit and risk need to be weighed carefully in each individual patient.

The therapeutic approaches to the various forms of MS have changed dramatically over the past decade and various disease modifying therapies have successfully been introduced and some are established.

Some treatment strategies of various clinical subtypes of MS are:

- Glucocorticosteroids are the most potent immunosuppressive and anti-inflammatory drugs, and are among the “mainstays” of treatment, especially for acute relapse.

- Plasma exchange (PE) is used for relapses and for people unresponsive to corticosteroids.
- Interferon (IFN) Beta is used to slow the progression from clinically isolated syndromes to clinically definite MS, or for people at high risk for developing it, yet there are still studies being done to support this idea and to determine who is at risk.

Once the decision has been made to initiate therapy, there is considerable controversy about the disease modifying drug to be chosen.

For treatment of RRMS the FDA approved a number of agents, including three different IFN Beta Formulations; subcutaneous IFN beta-1b, Betaferon/Betaseron; intramuscular IFN beta-1a, Avonex; subcutaneous IFN beta-1a, Rebif; glatiramer acetate, Copaxone; Mitoxantrone, and Novantrone.

Also available are Azathioprine, an immunosuppressive drug used in combination with other immunosuppressive agents to prevent rejection during transplantation and in a variety of immune mediated diseases. Its effect on disability progression has not been demonstrated, thus it is considered as a “second-line” treatment.

Natalizumab, a recombinant monoclonal antibody has recently been presented as well. It has shown to reduce the number of new lesion formation, and to reduce the relapse rate, but more studies are needed.

The treatment of SPMS is more challenging due to the degree of disability and the inflammatory activity as determined by the relapse rate and differs significantly between patients. Thus, a treatment strategy must be designed on an individual basis while carefully weighing the expected clinical benefit and the potential adverse effects of the chosen therapy.

Interferon Beta, Mitoxantrone, Cyclophosphamide, Methotrexate, and Cyclosporine are possibilities.

Treatment of PRMS is unfortunately unavailable at present.

“Recognizing these different injury cascades has catalyzed novel investigators into strategies for treatment that are aimed at promoting preservation of tissue architecture (neuroprotection) and even potentially neurorestoration.”

In very recent research at the Southwestern Medical Center, the discovery of partly developed reparative cells, called oligodendrocytes (OPC’s), that are within the plaques that form around the nerve cells of people with MS, can provide hope for treatment. The problem, says Dr. Elliot Frohman, “is how to trigger them to grow.”

Proteins called repressor proteins keep OPC’s in an immature state. Activating the OPC however, might help a severed or demyelinated nerve in the CNS become the target for repair. Researchers are examining the regulation of the genes Nogo, Lingo-1, Jagged and Notch for potential treatment. The proteins Nogo and Lingo-1 appear to have the ability to block nerve cells from growing, so if they can be blocked, the nerve cells might be able to recover.

This leads to another interesting question of genetic predisposition to MS. In the New England Journal of Medicine there is a report of a study of MS in twins from December 1986. The results from their study in concordance in MS have not conclusively differentiated between environments and genetic factors that determine susceptibility to the disease, yet there is some evidence of a major genetic component.

Investigators at the Immune Regulation Laboratory and the La Jolla Institute for Allergy and Immunology in San Diego, CA have shown evidence that indicates that microbes can initiate, enhance or conversely abrogate autoimmunity. Microbial infections can act as environmental triggers inducing or promoting autoimmunity, resulting in clinical manifestations of auto-immune disease in genetically disposed individuals. There is also increasing evidence suggesting the opposite outcome, which is the prevention or amelioration of auto-immune process following microbial encounters. This supports the “hygiene hypothesis” that cleaner living conditions will lead to enhanced incidence of auto-immune disorders.

Since the aim of an effective therapy in MS is to reduce the frequency and severity of relapses, shorten their duration, limit side effects, relieve symptoms, prevent disability arising from disease progression, and promote tissue repair, Ayurveda can address these issues and even perhaps get to the root cause, which depends on each individual person, their constitution, lifestyle, and responses to stimuli/stress. Progress has been made during the last decade in treating MS, especially for RRMS. Unfortunately, treatment options for SPMS and PPMS/PRMS are limited. Benefit and risk need to be weighed carefully in each individual patient. Ayurveda could serve the individual by deepening awareness of themselves, their environment and their responses to stimuli/stress and removing the toxic load caused by the medications allowing their body's to help themselves restore and repair and offer insights to allow for deeper healing on all levels of their being.

Methods:

In this study 5 people with MS who have been practicing yoga in a weekly session with me for about 4 years, and one new student, for a total of 6, have offered to participate in experimenting with Ayurveda. They have each received Ayurvedic Consultations from me to determine their Ayurvedic constitution, appropriate lifestyle adjustments and routines including diet, herbs, exercise (Yoga), Breathing, and Meditation. 2 are following the recommendations, one is interested in diet and lifestyle and does not want to start the herbs now, since she is also beginning a new medication, another has received the seeds and will plant them a little at a time as she feels able, and the new student is trying as well. I will follow their courses and document the process and findings as well as document other research findings in order to present what is available allopathically and Ayurvedically to help people with MS.

Results:

Along with what can be termed “official” medical science, the search for new drugs, and all the activity connected with the discovery of nature's secrets, there exists a vast body of knowledge which stretches back into the ancient realms of time. People throughout the world are fascinated by, and drawn to the world of alternative medicine, which is receiving increasingly more recognition and appreciation in view of the use of the elements which are provided in our environment, and are provided in our “mother earth”.

Along with the economic advancement, man is going far away from nature, and in order to find an honorable place in society, he is often exposed to physical fatigue and mental tension. This stressful living is the essence for many of the present day maladies of psycho-neurotic nature.

The *Caraka-Samhita* states that all the functions of the body, according to Ayurveda are controlled by the three elements, which in Ayurveda are called *Doshas*. These are *vayu* or *vata*, *pitta* and *kapha*. In their state of equilibrium, they maintain homeostasis and preserve, as well as promote positive health. Among these *Doshas*, *vata* is the most important because it controls all types of sensations and motor actions which are the functions of the nerves controlled by the mind. According to Ayurveda, the functioning of the mind and nerves are dependent upon *vata*.

Diseases caused by *vata* are classified into two broad categories, *nanatmaja*, or those caused by *vata* alone and *samanyaja*, or those caused by *vata* in association with other doshas. *Nanatmaja* are of eighty types, and *samanyaja* are fewer and are more tricky to diagnose and treat.

Vata gets aggravated and can cause a disease in two different ways. *Dhatu-ksaya*, diminution of tissue elements, and *marga-avarana*, obstruction to its channel of circulation. Nerves, including the cells in the brain and spinal chord are the pathways through which *vata* moves. Thus, *vata*, the moving material, or the neuro-humoral transmission of sensation, is different from the nerves through which it moves. Any damage or decay of these nerves will, however, cause impairment of the functioning of *vata* resulting in the manifestation of several diseases. Thus, the line of treatment involves the removal of obstruction in the nerves of their cells, and restoration of the normalcy of these cells by appropriate nourishment.

Dr. Lad, in his textbook of Ayurveda says that when *pitta* burns the *kapha* molecules of the myelin sheath around the axons of certain nerves, it creates optic neuritis or auditory neuritis, or it results in demyelinating disorders such as Multiple Sclerosis and he defines MS as a situation where *pitta* burns the myelin sheath, creating space for *vata* to enter the lesion. Therefore, an MS patient has *vata* type symptoms, such as weakness, fatigue, exhaustion, tremors, rigidity, muscle wasting, difficulty walking, tingling, numbness, sensitivity to extremes of both heat and cold and does not tolerate heat, because of high *pitta*. So MS is a demyelination caused by *pitta*, exacerbated by *vata* and affecting *kapha*. He continues by saying that Ayurveda's language is of the *tridosha*, not labeling a condition per say. He also says that when *tejas* (the essence of *pitta*) burns *ojas* (the essence of *kapha*), a person is susceptible to auto-immune dysfunction. The immune system is effectively burned out and the person can develop MS. When *tejas* disturbs the intelligence of *ojas*, it causes one's own bodily cells to create antibodies that start destroying the healthy cells. Our body's nervousness and anger destroy cellular intelligence, causing the creation of antibodies that start attacking our healthy cells, The molecules of *ojas* can become toxic and act as a foreign body or antibody. We have to look at it in a simpler way, he says, looking at which *dosha* is out of balance, which *dhatu*, or tissue elements are out of balance, which organ system is involved and which quality of the *dosha* is out of balance. Take the entire history, family and personal, and you will understand which *dosha* is involved.

Ayurveda gives an approach of simplicity and the treatment should be plain and simple.

There is a keen interest all over the world to find out nontoxic and effective remedies from herbal and natural sources for the treatment of diseases. Ayurveda, especially its classical works like *Caraka-Samhita*, is the repository of such herbal and natural products which are used uninterruptedly for thousands of years to justify their therapeutic efficacy.

Modern medical research has made phenomenal progress during the last few decades, but instead of multi-faceted and multi-dimensional methods, it seems to be approaching the problem mainly through one dimension or direction. Specialization in the diseases afflicting different parts/organs of the body is increasing as a result of which the individual as a whole is losing his or her identity. Ayurveda considers different parts/organs of the body as physiologically interconnected. Therefore, in addition to the afflicted part or organ, the entire body is examined, and the individual as a whole is treated.

The individual as a whole includes all of the five layers called the *Koshas*. These are the *Annamayakosha*, the physical layer, composed of tissues, *Pranamayakosha*, or the layer of élan-vitae, or energy layer, *Manomayakosha*, the layer of the psyche or emotional layer, *Vijnanamayakosha*, the layer of the intellect or intuitive wisdom layer, and *Anandamayakosha*, the layer of bliss or the spiritual layer. For the health of the individual there must be harmony and connection in and between all of these five *koshas*, and disease originates when there is disharmony or disconnection in and between them. Modern research is mostly confined to the physical layer, while the layer of the psyche is receiving scant attention and is also not seen in connection to the other layers. Ayurveda, on the other hand, puts emphases on the psychosomatic concept of the disease, and also includes the examination of the three remaining *koshas*, which are almost neglected in modern medical research.

While making efforts to find out remedies for various diseases, scant attention is paid to the concept of positive health in modern medical research. Ayurveda pays a great deal of attention upon the preservation and promotion of positive health which is its primary objective. For this several rules are prescribed in Ayurveda which include codes of conduct, regimens for the different seasons, regimens for the different parts of the day, and regimens for the different parts of the night. If these rules are violated, then a person suffers from various diseases, and then the secondary objective of Ayurveda is to prevent and treat these diseases.

Modern scientific research generally aims at finding out a microbe as the cause of different diseases and a lot of energy is devoted to locate them and to develop ant-microbial drugs. These microbes slowly become resistant to the drugs. Over time, genetic changes take place in these microbes and new drugs become necessary. Thus, the new research, discovery, and manufacturing of new drugs and products ensure a continuous cycle of dependence and weakness of the patient, and power and financial gain for the medical industry.

Microbes are certainly stronger than the tissue elements, and antimicrobial drugs which aim at destroying these microbes become detrimental to the tissues as a result of which several toxic reactions are manifested in the patient. These antimicrobial agents being heterogenous to the tissues are treated as foreign bodies. They get neutralized or get eliminated through the tissue elements of vital organs during which process these vital organs get considerably damaged. Thus, the patient continuously suffers from various maladies which are the outcome of these remedies. These are designated as *latro-chemical ailments*. From a business point of view, these methods are fruitful, but to give solace to the patient and to make him really healthy and happy, an alternative approach has to be developed.

Ayurveda describes microbes as causative factors of several ailments, but these factors are considered to be only secondary. The primary causative factors are the disturbances in the equilibrium of the *doshas* and *dhatu*s, or the tissue elements, which is a result of disharmony in and between the *koshas*, the layers of who we are and our relationship to ourselves and our environment, which also happens to be the first limb of Yoga. A microbe, however strong it may be will not be able to produce a disease if the immune system of the body is strong enough to resist its growth and multiplication. Ayurveda emphasizes keeping the immunity strong and rather than using antimicrobial drugs, to use the immunity of the body to fight and arrest the growth and to destroy them. Ayurveda prescribes drugs in the form of herbs, diet and daily regimens to preserve and promote this immunity, in order to prevent and cure diseases. Instead of side toxic reactions these Ayurvedic therapies produce several side benefits. While curing disease, the strong immunity developed, prevents the reoccurrence of the same disease and attacks of other similar diseases.

Often modern medicine can only provide palliative drugs, such as pain killers, anti-inflammatories, anti-spasmodics, anti-allergy, etc. With these palliative drugs the patient often then winds up on steroids. These palliative drugs give temporary relief, but slowly higher doses and potencies become necessary, the immunity of the body becomes lower and the patient succumbs to the adverse effects of these so called wonderful remedies. These adverse effects become more painful than the original disease, but it is all that modern medicine can provide. Ayurveda has in its store, a lot of herbal and natural products for such metabolic diseases and allergic manifestations. According to Ayurvedic principles, the actions of these natural therapies may be slow, but their effects are stable. In our country there are many unnecessary diseases due to our lifestyle and belief systems causing many unnatural and harmful reactions in the body. These unnecessary illnesses become a liability upon family, society and state. The family members spend a lot of their time and money for their care, hospitalization and special housing needs for some to live in isolation. This isolation from their family and society makes their life more miserable. Disease and miseries can be reduced and avoided. One branch of Ayurveda deals with rejuvenation therapies and if these measures are adopted at appropriate times, miserable ailments and diseases could be prevented and cured and the quality of life improved.

The *Caraka-Samhita* is the Ayurvedic authority. It states that “MS is an ailment arising out of the occlusion of *vata* by *pitta* and *kapha*,” and so is considered a *vata* disease. It says it is important to know the normal nature of *vata* before describing the diseases caused by it. *Vata* is ultimately the strength, sustainer of the body and is all-pervasive, the controller of everything in the universe, and the union of the physical, senses, mind and soul. If a person’s *vata* moves unimpaired, it is located in its own site, and it is in its natural state, then he lives for more than hundred years free from any disease.” *Vata* is composed of the elements air and ether, of which, there are five forms or movements. Each has its function in controlling and sustaining the functions of the body by its unimpaired movement in the locations concerned. *Prana vata* is located in the head, chest, throat, tongue, mouth and nose and its functions are spitting, sneezing, eructation, respiration, and the intake of food. *Udana vata* is located in the umbilicus, chest and throat and its functions are the manifestation of speech, effort, enthusiasm, strength and complexion. *Samana vata* are pervading the channels that carry sweat, *doshas*, and aqueous material having to do with circulation, and is also located in the digestive enzymes, promoting the power of digestion. *Vyana vata* moves swiftly and pervades the entire

system of the person. It always functions in the form of motion, extension, sudden movements, winking of the eyes and similar other movements and contractions. **Apana vata** is located in the two testicles, urinary bladder, phallus, umbilicus, thighs, groins, anus and colon. Its functions are the ejaculation of semen, elimination of menstrual blood and child birth.

Vata gets aggravated by things that are of similar attributes of air and ether, that contain qualities of cold, dry, rough, light and mobile and it gets aggravated by the intake of unctuous, cold, scanty and light food, excessive sexual indulgence, remaining awake at night in excess, inappropriate therapeutic measures, administration of therapies which cause excessive elimination of **doshas**, including stool and blood, fasting in excess, swimming in excess, resorting to wayfaring, exercise and other physical activities in excess, loss of tissue elements, excessive emaciation because of worry, grief and affliction by diseases, sleeping on uncomfortable beds, and sitting in uncomfortable seats, anger, sleep during the day, fear and suppression of natural urges, formation of toxins, products of improper digestion and metabolism, suffering from trauma and abstention from food, injuries to vital spots in the body (**marma points**), and riding on an elephant, camel, horse or fast moving vehicles, and falling down from the seats on these animals and vehicles. Some signs of **vata** aggravation include contraction, stiffness of joints, pain in the bones and joints, horripilation, delirium and spasticity of hands, back and head, lameness of hands and feet, hunch back, atrophy of limbs, insomnia, destruction of a fetus, semen and menses, twitching sensation and numbness in the body, shrinking of the head, nose, eyes, clavicular region and neck, splitting, pricking, and excruciating pain, convulsions, unconsciousness and prostration.

It offers treatment protocol for **vata** conditions primarily through eating a **vata** reducing diet, which would include rejuvenating, grounding, easily digestible, non-gaseous and unctuous foods, **vata** reducing herbs, which could be for rejuvenation of the nervous system and other tissues, as well as for improving digestion, elimination and restoring the colon, a **vata** reducing lifestyle, which would be one of routine, consistency, calming practices of Yoga, **pranayama**, or proper breathing exercises, meditation and self-nurturing, daily oil massage and other body therapies that include oil such as **shirodhara**, warm oil dripped onto the forehead and **pizchili**, warm oil poured over the body as well as oil enemas which are also a rejuvenator for the colon and nervous system. Once enough strength is established a person could be ready for **panchakarma**, which has also been shown to be effective for people with MS. **Panchakarma** is a system of moving the excess doshas to their respective sights and eliminating them from the body. There are different methods used and the specific treatment plan would be designed by the **Ayurvedic** Doctor after thorough evaluation of the individual.

Case Study Participants:

CLIENT A: female, age 40, 158 lbs. 5'2"

Diagnosed with relapsing remitting MS November 1994 (28 years old)

Initial symptoms-stumbling, tripping, blurred vision, fatigue

6 years later started disease modifying drugs-Beta Seron, Copaxone and Rebif (they weren't standard treatment at that time) and was on fertility drugs-no success.

Recently diagnosed with Progressive form of MS and put on Methylprednisone (steroids) and Cytosan (chemotherapy)-did 2 treatments and couldn't tolerate it.

Current symptoms-limited mobility, weakness in legs, ankles and feet, depression, weight gain, headaches, muscle aches and soreness, spasticity, muscle cramping, restless legs and arms and fatigue. Lesions seen in MRI in various places in brain and spinal column which are all stable at this time.

Prakriti: V2, P1, K1

Vikriti: V2, P2, K2

Low lung-K, Low liver-K, Low kidney-V, Low spleen and heart

Imbalance of *prana/apana vata*, *ranjaka pitta*, *bodhaka* and *tarpaka kapha*

Tongue shows red patches-*pitta*, some white-*kapha* and undigested food, crack along center-*vata*-emotions held in spine

Rosasia-nose and cheeks

Daily Rhythm Analysis:

- Gets up 7am, bowel movement 3-4 times per week, consistency varies
- Breakfast was cold cereal, sandwich for lunch and dinner chicken, or some type of animal protein, veggies and salad
- Her normal exercise program varies-tries to do nautilus machines 3X week, 20 minutes hard cardio, yoga one time per week.
- She does 1 to 2 hours a day of office work for her husband
- Sleep is interrupted
- Energy varies, never high and had no de-stress mechanism
- Her relationships are good though she tends to be the one available to care for others
- Her health concern is the progression of MS

Recommendations:

- Start her day-drink warm water with raw honey and lemon, *neti* pot and *nasya* oil and connecting to something she has faith and devotion in, practice yoga and *pranayama*-including *utkatasana*, *arda chandrasana*, belly breathing, *kapalabati* (breath of fire), finishing with *nadi shodana* (alternate nostril). She can do 10-20 minutes light cardio as well.
- After shower massage with sesame or mahanarayan oil and aloe or coconut oil to face.
- Eat 3 square meals a day-eating the lighter side of a *vata* pacifying diet
- Lifespa Herbal Formulas: Sugar Destroyer, Anxiety Free, Energico, Triphala and Elim I
- Drink ginger nectar before meals

She continues to complain about heaviness in the gall bladder and once she has an ultrasound to be sure there are no stones, she might do a liver flush recommended by Dr. Lad of olive oil, lime juice, garlic and cayenne.

She kept some recordings of her experiences, which reflect her stop and go along the way, and it took a while for her to see that the herbs actually helped her to stay on track with it because formerly she was getting overwhelmed and anxious, demonstrating her high *vata* and her wanting to do it so correctly that it hampered her doing anything at all, which reflects *pitta* pushing *vata*. Here is what she did and her feelings about implementing Ayurveda: Morning routine: wake up at 7am or

before-rest in child pose for several minutes before getting out of bed-helps to relieve stiffness and aches. Urinate, brush teeth, scrape tongue, *neti pot* and *nasya oil*. Read daily spiritual passage. Take a bath and then daily *abhyanga* massage with Mahanarayan Oil. Sip warm lemon water in the morning and throughout the day as well as before meals. Take ginger shots with meals. Some dietary changes included drinking tea most mornings rather than coffee, warm cereal rather than cold, lunch between noon and 2pm and making it a warm meal. Was eating popcorn for snack and trying to reduce snacks and implement more dahls and basmati rice. *Kapalabati* and *Nadi Shodana* breathing once a day, Yoga poses once a day, including interdigitating her toes, Yoga class once a week, 15-20 minutes of cardio 3X per week, Nautilus 3X per week.

“There were a few things that I was hoping to accomplish by incorporating Ayurveda into my life, such as alleviating some of my MS symptoms, regulate bowel movements, stabilize my moods, lose weight and sleep better. Even though I did not achieve all of what I was hoping to accomplish, I did accomplish some of them and I feel that I have learned a great deal about alternative methods to allow myself to be able to be an active participant in my overall health and well being.

I would have to say that although I was a bit overwhelmed at times (mainly due to personal life struggles), I believe that it helped me to slow down and be more aware of the things that caused me to become unbalanced and the ability to know how to balance them. I will definitely try to continue with the practice of Ayurveda as well as I possibly can.

My moods are under control, not so agitated, internally calmer under stressful situations and sleep is much better, sounder with fewer sleepless nights.

Nasya Oil-clears sinuses and head, Mahanarayan Oil calming, moisturizing, ginger shots-wakes me up, makes food taste better, warm lemon water-reduced bloating, gas and heaviness in gut, Yoga-calming, peaceful, spiritual, Pranayama-calming, rejuvenating, clearing, herbs-stabilized moods, Elim I and triphala before meals, improving bowel movements.

CLIENT B: female, age 53 118 lbs. 5'4”

Worked on Wall St. for 12 years

Diagnosed with MS in 1990, though she had it since 1988

Disease modifying drugs-Copaxone 20mg injection 1X daily, Vesicare 5mg daily, Baclofen 10mg. 4Xdaily, Neurontin 300mg 3X daily. She was taking supplements due to results of bone density November 2003-1200mg calcium, 800 iu vitamin D. Bone density repeated December 2005-lower than normal fracture risk in spine and greater hip fracture risk (5X normal) so added 1200iu vitamin D. Now taking Centrum 60 multivitamin with 400iu vitamin D, 1200 mg. calcium and 400io vitamin D

Prakriti: V3, P2, K1

Vikriti: V3, P3, K1

Low lung energy-K, Low liver-P, Low circulation-K, Low kidney-V, spleen and heart

Imbalances of *prana/udana vata*, *bhrajaka pitta*, *shleshaka kapha*

Tongue shows many cracks, tremor-*Vata*, coating in the back-undigested food in the colon,

yellowish/whitish spots along lung and spleen-pitta/*kapha*

Nails show malabsorption and dry and cracked-*vata* and her skin, hair and eyes are classic *pitta* color. She has constipation, incontinence, dry nose, and congestion, sometimes bloody, pain in her back when she lies down.

Daily Rhythm Analysis:

- She wakes up at 5 am and has a structured routine with her husband and care of their cats.
- Then she does yoga. At 8 am she has cold cereal because she thinks oatmeal will make her gain weight, or fruit and yogurt. At noon she has salad or soup for lunch and dinner is standard fare of meat, veggies and dessert. She and her husband have appetizers of reduced fat potato chips and she has Perrier water, and she eats a lot of beans to help her have a bowel movement.
- For exercise she does yoga daily, free weights for arms 1X week, walks a bit, treadmill and gardening. She goes to bed about 9pm, but gets up during the night to urinate.
- Her energy is high from morning until noon-when she has lunch.
- Her stress management techniques are reading and knitting
- Her relationships are terrific, nurturing and supportive, though she sometimes gets angry because her husband is too supportive.

Recommendations:

- Treat herself in a restorative way, with “doing 30% less” her mantra.
- In the morning drink warm water with lemon and raw honey.
- Neti pot and nasya oil, and oil massage with sesame oil or mahanyan oil
- Eat 3 meals a day of a *vata* pacifying nature, being careful to not aggravate *pitta*, ie: warm cereal, to reduce the yogurt, and not combine fruits with food. To eat more for lunch, without salads. Use mung dahl rather than other type of beans. Drink ginger nectar or strong ginger tea with meals to improve digestion and eliminate *ama* (toxins) and find an alternative appetizer, eliminating carbonated beverages. Eat sesame seeds or sesame seed candy for osteoporosis. Sesame Oil enema in the evening. Lifespa Herbal formulas-Anxiety Free, Energico, Triphala and Elim I. She has continued concerns about the incontinence and wants to use their Kidney Formula and Rentone as well.

She began implementing Ayurveda immediately following our initial consultation and kept a thorough journal of her experiences demonstrating her Pitta approach to life. She has incorporated the mantra of doing 30% less and has found that she feels better. Her consistency with taking herbs: Triphala, Elim I, Energico, Anxiety Free, Kidney Formula and Rentone along with her daily practice of *Neti pot*, *Nasya Oil*, Daily *Abhyanga* massage with Mahayanaran Oil and a few dietary changes like drinking ginger tea with raw honey, switching to flat water rather than the bubbly type, and eating more warm foods prepared with ghee have proven to add quality to her life.

She says “I plan on keeping my supplements, going forward, at least for now because the physical changes I’m experiencing are very positive. The high points are: my bladder function is more stabilized—I’m getting my brain out of my bladder and worrying a lot less about incontinence. I’m more regular and when I have a bowel movement, it is not so dry and hard to pass. That’s another plus. I don’t know if it is the result of taking Energico and Anxiety Free or the joy of spring, but I’m feeling calm and at peace most of the time. I don’t get angry so much or wake up at night full of worry. And speaking of night, I’m sleeping better probably due in part to the fact that I don’t have to get up to urinate so often. I’m following your suggestions to some extent (No Perrier, just warm water with lemon at night, no dinner time salad, which I’ve realized is a diuretic, tending to warmer, foods for

lunch, soup, and breakfast, oatmeal) It shouldn't surprise me when small changes make a difference over time, but they certainly do. The sesame oil, nasya oil, and neti pot are very helpful especially when I had that miserable cold. It feels so good to have my sinuses cleared out so I can breathe more freely. Now for the changes I haven't made: I haven't given myself a sesame oil enema and probably won't because I have such negative feelings about that kind of thing. I still eat my chips, but went to ones with fat and I still have some ice cream for dessert every night. I just came across a recipe for creamy dill dip that I'm going to try when I find fresh dill. I'll substitute with some carrot sticks or cucumber slices for the chips. So that's a big step, but I can't imagine giving up on ice cream now."

CLIENT C: female, age 52 120 lbs. 5' 4"

Diagnosed in 1978 with MS and was put on steroids. She has been on a number of experimental drugs, and participated in many studies. She was on Copalamere which worked but had to be stopped because it is unavailable. She had a bad attack in 1987 and is on Immuran for 15 years and it is "keeping it at bay". Symptoms are burning, tingling toes to scapula and fatigue. Her lesions are mostly along spinal column and brain.

Prakriti: V2, P2, K1

Vikriti: V3, P2, K1

Low energy in all of the deeper organs; lung-V, Liver-V, Kidney-V, spleen-V, heart-V

Imbalances of *prana vata*, *bhrajaka pitta*, *tarpaka kapha*

Her tongue shows a spot on the left lung, a crack down the center with a tremor-*vata*

Her breathing is short and shallow, and she talks very quickly-*vata*

Nails are dry and white, eyelids droop, and skin is reddish with red rashes all over (DSAP).

Daily Rhythm Analysis:

- Wakes up at 6am, and she stretches and thinks. She does have a bowel movement every morning that is normal consistency.
- She eats breakfast 6-6:30 and has yogurt, sweet bun cake and/or fruit, lunch is 11-12 and she has yogurt and fruit, and dinner at 6 is soup, broiled chicken or fish. She snacks on fruit throughout the day.
- Her exercise is walking her dogs and yoga 1X week. Her work day is busy, and she goes to bed about 10:30pm, her sleep is ok and her energy is up and down. She uses yoga to de-stress, and her relationships are nurturing. She lives alone, and seems sad/depressed. Her health concerns are about MS.

Recommendations:

- Wake up and have warm water with lemon and raw honey, *neti pot* and *nasya oil*
- Focus on faith and prayer meditation. Do some yoga including *uttkatasana* and *pranayama* 4-4-6-lengthening the exhalation. Massage with neem oil.
- Eat 3 square meals and reduce yogurt, sugars, fruits and snacks. Eat a *vata* pacifying diet, being careful not to aggravate *pitta*. Drink ginger tea with meals.
- Lifespa Herbal Formulas: Anxiety Free, Energico, Sugar Destroyer and Triphala with Elim I when constipated. Later she might add *manjishta* and lung formula.

The last time I saw Client C, she was smiling and brought ginger candy for everyone in the class. She said she noticed improvement in her skin, moods, and energy, and was on her way to Spain for a

vacation. She kept no journal, made some adjustments like incorporating spiritual readings into her morning and some small dietary changes like eating warmer foods and reducing some of the sugars, along with taking all of the herbal recommendations. She seemed brighter and more fully alive and I look forward to her return.

CLIENT D: female, age 54 123 lbs. 5'4"

Diagnosed in 1974 with MS. Symptoms include cognitive problems, fatigue, bladder and bowel disfunction, spasticity, painful muscle spasms, numbness in feet, lower legs—mostly on the right side, weakness in legs, drags right leg, loss of balance.

Starting Copaxone so doesn't want to take the herbal supplements right now, but is interested in lifestyle support.

Prakriti: V2, P2, K1

Vikriti: V3, P2, K1

Low energy in the colon, liver and circulation as well as kidney, spleen and heart

Imbalances of *prana vata*, *pachaka pitta*, *shleshaka* and *tarpaka kapha*

Tongue has crack down the center and towards the lungs, (like a peace symbol), tremor-*vata*, and red-inflamed intestines. Nails are dry and cracked and skin is dry-*vata*. She speaks quickly and is thin and characteristically *vata*.

Daily Rhythm Analysis:

- Wakes up about 7am and makes coffee, breakfast and watches television.
- She has a morning bowel movement, though it varies and is prone to constipation.
- Breakfast is between 7 and 8am and is oatmeal, kashi, or eggs. Lunch varies, usually a sandwich, (though she is often eating on the run), and dinner at about 6 is chicken, pork or pasta, starch, veggie and salad.
- For exercise she does Yoga, walking, skiing and bicycling. Her days vary since she doesn't work full time. She goes to bed late—between 11 and 1:00 and her sleep is not good without medication. She says her energy is normal for a person with MS—varies, leaning to low. To de-stress she walks in the woods. Her relationships are ok and she likes her work.

Recommendations:

- Reduce coffee in the morning and drink warm water with lemon and raw honey, and begin the day with a meditation on something of faith or devotion. Do some calming yoga and pranayama 4-4-6-increasing exhalation. Neti pot and nasya oil and Abhyanga massage with sesame oil, or mahanarayan oil. Slow down, do less and eat 3 square meals a day eating a vata pacifying diet, and drinking ginger tea with meals. Go to sleep earlier—about 10-10:30pm.
- I recommended Lifespa Herbal Formulas: Sugar Destroyer, Anxiety Free, Energico, and Elim I, but she wants to wait on starting them because she is just starting the Copaxone.

She has been incorporating some of the lifestyle and since, is experiencing positive results and hearing the positive results if others, did just decide to try the Nasya Oil, and Elim I (though she hasn't started that yet).

She has eliminated coffee, and started daily abhyanga massage with Mahanarayan oil. She is slowing down and making some dietary changes like having a relaxing lunch of warm food. She did begin the Copaxone last week and that made her sick, so she missed Yoga class.

CLIENT E: female, age 55 115 lbs. 5'1"

Diagnosed in 1986 via spinal tap with MS.

Symptoms included slight weakness in right leg, then went into complete remission until about 1999. MRI in 1999.

Presently weakness in the left leg and foot, some bladder weakness when tired, spasms, and pain. She is taking Evista (HRT), Lipitor (cholesterol), Baby Aspirin, L-Lysine (cold sore prevention), Imuran (MS), Fosomax weekly (bone calcium), Celebrex-as needed.

Her cholesterol was high, but now it's normal.

She is just getting over a cold and is still a bit congested.

Prakriti: V2, P2, K1

Vikriti: V2, P2, K1

Low energy in all of the deep organs with lung-V, liver-P, circulation-K, spleen-P and heart-V, also low energy in the bladder.

Imbalances in *prana vata*, *ranjaka pitta*, *shleshaka kapha*

Tongue has a sharp, pointy shape-*pitta*, some white coating along the lungs-*kapha* and undigested food, indentation along the center and tremor-*vata*.

Nails show malabsorption, her skin is fair with worry lines across the forehead and lines indicating emotions held in the liver and spleen. The skin is also dry, and she is talkative.

Daily Rhythm Analysis:

- Wakes up at 7:30am. Has coffee, reads the paper and then has a bowel movement at least once a day and when her stomach is upset could have 2 or 3. The consistency varies.
- She does not eat breakfast, occasionally some toast and peanut butter. At 11:00 she has soup or sandwich, or leftovers, or eggs, or yogurt. About 3:00-snack is an apple or cream cheese and crackers and dinner at about 6 is meat, potatoes, and vegetable.
- Her exercise is yoga 1X week, walking around the yard 1X day, weather permitting, and gardening. She goes to bed at 10 or sometimes reads and watches TV until 11pm. Her sleep is restless, tosses and turns due to leg pain so she naps in the afternoon. Her energy depends and is connected to responsibility and tasks. She has more mental energy than physical. For de-stressing she has a couple of beers and reads. Her relationships are nurturing. She said "Pitta doesn't want to deal with negative relationships".
- Her health concerns are that her MS doesn't get worse, stress, lack of physical activity and progression of disease.

Recommendations:

- Nurturing herself and doing 30% less.

- Reduce coffee and drink warm water with lemon and raw honey.
- To begin the day with meditation on faith and devotion and to do some nurturing yoga an *pranayam*, first belly breathing and then reverse it and use 4-4-6-lengthening exhalation.
- Massage with sesame or *mahayanarayan* oil.
- Reduce television, especially before bed and the newspaper, especially just upon awakening. Eat a warm breakfast, and try to eliminate snacks, or make them warm and moist. Follow *vata* pacifying diet, being careful to not aggravate *pitta*. Eat sesame seeds or sesame seed candy for osteoporosis. Lifespa Herbal formulas: Sugar Destroyer, Anxiety Free, Energico and Triphala and possibly Chitrak for cholesterol. She did her own research and told me she only wants to take Liver Formula.

She has become of aware of Ayurveda and it's benefits through watching the others in the class, though doesn't seem ready for the changes herself. She did compile a journal of activity that documents her daily routine and rhythms and that was a good exercise for her to become more aware of it. She did start drinking a cup of warm water before her coffee in the morning, which she reduced to half a cup and added ginger tea occasionally.

She continually had either company coming to her house, or she was traveling to visit others and had a very full schedule of caretaking her family, rather than focusing on herself. She said that she might do more of Ayurveda in the future, as she has begun to learn about it and understand that it could improve her life.

CLIENT F: male, age 55 225 lbs. 6'2"

Diagnosed in 1989 with MS.

On Baclofil for numbness and seizures, Simatril for fatigue, Refib injections 3X week for MS, Provocol for cholesterol which is 245.

History of prostate cancer-surgery 2 years ago-all ok now

Was an electrician and was electrocuted in 1992-burns on arm

Prakriti: V1, P2, K2

Vikriti: V3, P2, K3

Low energy in the lung-K, liver, gallbladder and pericardium, kidney-K and small Intestine-V

Imbalances in *prana/vyana vata*, *ranjaka/bhrajaka pitta* and *avalambaka/shleshaka kapha*

Tongue has yellowish coating-*pitta*, cracks and tremor-*vata* and bumps in the back-undigested food in the colon.

Nails show malabsorption, and dry-*vata* but *kapha* in shape, some hair loss, eyes are reddish, yellow along the bottom and ring around cornea. Skin is reddish with burns, and dry, *kapha* built-large wrists.

Daily Rhythm Analysis:

- Wakes up at 8am-goes to the bathroom and gets dressed. No daily bowel movement-maybe every 2-3 days and very hard stool.
- Breakfast at 10am is cereal (cold or hot) juice and banana or other fruit.
- Usually skips lunch and dinner is at 8pm consisting of salad, veggie, poultry or fish, milk and occasionally dessert.
- He does Yoga 1X week – just started 2 weeks ago.

- Goes to sleep late midnight to 1am and sleeps well. His energy is sporadic, has most energy in the mornings. To de-stress he reads, watches TV, Yoga is new, but helping
- Relationships are pretty good-with spouse is great, and current problem with 2 sons.
- Health concerns are fatigue, constipation, balance, coordination.
- Favorite season is the fall, uncomfortable in the heat.

Recommendations:

- Wake up 7-7:30am and drink warm water with lemon and raw honey. Meditate on nature (what he said he believes in) Do some yoga-sun salutations focusing on nature and the sun, *arda chandrasana* (half moon), and arm circles, add any other poses you learn in class that you like. *Pranayama-kapalabati* at the morning and *nadi shodana* in the evening.
- After shower massage with neem oil. Do neti pot and nasya oil.
- About 8:30 have a warm breakfast. When having milk, always boil it and add spices ie: cardamom, cinnamon or ginger and don't combine it with fish, meat or eggs. Have a warm lunch around noon and about 6:30 eat a warm, light supper like soup and a grain. *Kapha* pacifying diet without aggravating *vata*-use mung dahl rather than other beans and eat more easily digested, cooked foods that aren't gas forming and use spices to help improve digestion. Drink ginger nectar before meals to help improve digestion and clear ama. Sesame oil enema in the evening. Lifespa Herbal Formulas: Energico, Triphala and Elim I. Also suggested bhringaraj oil for scalp and a man jishta and licorice paste with raw honey for the burns. He has chosen to go with the Energico, Triphala and Neem oil for now.

He is new to Yoga and Ayurveda, and has embraced it in a slow and steady manner, demonstrating his kapha nature. He did not keep a journal (he has difficulty writing or typing), but told me that he practices Yoga every morning and has begun to eat lunch. He initially wanted to start with the Triphala and Energico, but by mistake I gave him 2 bottles of Triphala and in the time it took to reorder more herbs, we watched his body's response to the Triphala. We had another conversation and decided that adding the Elim I would be a good idea and to use Anxiety Free rather than energico. He was taking 12 Triphala a day to get a bowel movement and they were hard and dry, so hopefully the Elim I will change that and he just began the Anxiety Free. He has also been doing daily *Abhyanga* massage with Neem oil and is seeing some positive results. In class he seems brighter, is standing taller and seeming more relaxed.

Discussion:

This study was useful for the participants to more deeply observe and understand themselves and their relationship to their environment and to become a more active participant in their own healing process.

We found that the practice of Yoga has helped people with MS to stretch and tone the body and to improve circulation, respiration, digestion, and calm their nervous systems, resulting in restored confidence, self-esteem and offering them insights into who they truly are rather than identifying themselves as a person with MS. It allows them to more deeply relax which allows all of their body and mind to function better and give them more energy for their own healing. The Breathing practices (*Pranayama*) help all of the aforementioned as well as providing more oxygen to the brain and nervous system which, along with sensory input, is its food. The nervous system uses 80% of the oxygen we take in, so the more we take in and can assimilate, the better our nervous system performs. We take in the oxygen (*prana*) through the breathing and the Yoga postures help to distribute it throughout the body. The practices of Yoga and Breathing ultimately prepare the practitioner for Meditation. Sometimes the Meditation is occurring simultaneously with the coordination of the Yoga postures and Breath and by adding a focus of their own choosing, something that inspires faith in them helps to tap into their individual humanness and expanded consciousness. This is where integration, transformation and the deeper essence of healing occurs. By integration we can mean all the levels of our body/mind, including all of the *Koshas*, allowing for rebalance, restoration, and unity between ourselves and our environment. Only when we have accessed our individual consciousness and yoke it with universal consciousness can the threat and illusion of separation be dissolved, genuine insights arise, and deeper levels of relaxation and healing emerge.

Specific practices and daily routines should be created for each person as each individual is unique in how the *doshas* present themselves, which is reflected in the variety of symptoms of MS. These symptoms can even differ for the same person at different times. It is an unpredictable condition and the sensitivity and intuition developed from these practices can give the person the ability to more deeply understand themselves and adapt their practices as needed to be properly effective rather than harmful.

Yoga, Breathing, *Pranayama* and Meditation are holistic and harmonious practices that combined with an *Ayurvedic* lifestyle, can give a person with MS a chance to balance themselves, resulting in a life of freedom as well as control of their own lives.

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