



Original Research Article

Volume 8 Issue 2

April-June 2019

MEDITATION IS THE BEST MEDICATION: IN CHRONIC KIDNEY DISEASE PATIENTS UNDERGOING HAEMODIALYSIS.

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ABSTRACT:

Chronic kidney disease (CKD) is affecting many individuals in the world, irrespective of ethnicity, gender and age. CKD requires dialysis or renal transplant. Haemodialysis, associated clinical conditions such as hypertension, cardiac problems, infections, headaches, muscle cramps, body pains and stigma of the disease adversely impact the survival and quality of life (QOL) despite technological advances. In addition, patients on regular haemodialysis develop sleep disorders such as insomnia and central apnea, restless leg syndrome, depression, anxiety and stress. Meditation as a complimentary therapy has been shown to decrease ones anxiety and stress, and improve comfort of patients with chronic diseases. This review describes benefits of meditation and also introduces Arham Purushakar Meditation (APM) promoted by Upadhyay Shri. Praveen Rishiji from India, which could be easily performed without any rituals and may be practiced anywhere at any time. The practice of APM meditation shows beneficial effects on improvement of clinical conditions and modulating anxiety and depression levels in patients undergoing haemodialysis and eventually may lead to improved QOL.

Key words: Chronic kidney disease (CKD), Arham Purushakar Meditation (APM), Glomerular Filtration Rate (GFR), Depression, Anxiety, Quality of life (QOL).

INTRODUCTION:

Meditation is defined as a form of mental training that aims to improve an individual's psychological capacities. It encompasses a family of multifaceted practices that include yoga meditation, mindfulness meditation, mantra meditation, tai chi, etc. [1] The human being is a physical, mental and spiritual being; meditation helps in developing the balance between all these three aspects. Meditation has been also shown to decrease anxiety and stress by increasing the tolerance level to pain and improve wellbeing and QOL of patients with chronic diseases. [2]

In the present era, meditation has been considered as a potential intervention to decrease stress and anxiety and is gaining popularity over the past few decades. Meditation is a form of a mind-body intervention as it helps to influence the mind to adapt to the body's clinical symptoms through mechanisms of the parasympathetic nervous system and the decrease in stress hormone levels. [3]

In the end stage kidney disease (ESKD), meditation aids in coping with the mental agony caused by symptoms, treatment, restrictions, social, financial and family issues. However, in various parts of the world the clinical uptake of meditation is low in the ESKD dialysis population.

The present paper reviews different forms of meditations being practiced by people with chronic diseases all over the globe including India and the beneficial effects observed by meditation group. ***"Meditation is similar to watering the root of a tree, rather than attending to each individual leaf"***.

Chronic Kidney Disease

In today's global scenario, CKD is a serious health problem, with adverse outcomes of kidney failure, cardiovascular disease (CVD), and premature death. CKD is defined as kidney damage or Glomerular Filtration Rate (GFR) <60 mL/min/1.73 m² for 3 months or more, irrespective of its etiology. [4] It is really a pathetic condition that adversely affects patient's health, QOL, limits lifetime and increases economic burden to health-care sectors globally. [5] In a survey conducted by American Medical Society of Nephrology, it was estimated that more than 10% of adults in the United States, which amounts to more than 20 million people, may have CKD. Chances of occurrence of CKD increase after 50 years of age and most common among adults older than 70 years. [6]

Diabetes, hypertension and glomerulonephritis are known to be the most common causes of CKD and among these diabetes and hypertension are the leading causes of end stage renal disease (ESRD). [7] In India, 25-40% of subjects with diabetes and hypertension are likely to develop CKD. [8] Several studies have demonstrated that there is an association of metabolic syndrome (high blood pressure, high serum triglyceride level, elevated fasting glucose level and central obesity) with CKD. [9] CKD further leads to co-morbidities such as congestive heart failure and anemia of chronic renal failure. [10]

There are also some important risk factors for CKD such as sympathetic tone [11], oxidative stress, chronic inflammation [12] and psychological stress. [13] Management of CKD through modifications of these risk factors must be the main goal of our researchers.

Haemodialysis

ESRD requires dialysis treatment or kidney transplant in order to prolong life. Haemodialysis, a treatment option, which is usually done 2 to 3 times weekly in outpatient dialysis centres or hospitals and is designed to remove excess fluid and filter the blood containing impurities (toxins) because the patients' kidneys can no longer perform these functions. Dialysis patients require this treatment for the duration of their lives, unless they are going for kidney transplant.

Most patients with ESRD are forced to do lifestyle modifications such as restrictions in diet, fluid intake and medication. They must also adhere to haemodialysis or peritoneal dialysis schedules. Therefore, they often feel depressed as they have lost control of their lives and experience poor QOL. These feelings induce non-adherence to medical guidelines, which may exacerbate medical problems leading to complications. The rate of not following to proper diet, fluid intake, and medication regimens as advised by medical experts has been reported to range from 30% to 60% in ESRD patients receiving dialysis. [14]

Prevalence of Meditation

In a US chronic kidney disease and transplant pain clinic, 39% of respondents reported interest in attending an intensive 10-day meditation retreat. [15] Recent studies in Turkey have shown 46% - 57% of Turkish haemodialysis patients using mind-body

techniques. [16,17,18] Although there is significant global interest in mind-body technique its percentage of followers varies from place to place.

Interestingly a high prevalence of complementary treatments has been reported in Africa (82%). Unfortunately, low rates have been reported in India (8%) [19], Trinidad (11%) [20], while even less in Palestine (4%). [21]

Complementary or Alternative therapy

Complementary therapies or alternative medicines are now widely known and practiced in global health care systems. Alternative therapy is being used as adjuvant therapy alongside the conventional medical management to enhance overall health and well-being of the patients. [22] Examples of these therapies include yoga, massage therapy, progressive muscle relaxation, acupuncture, acupressure, reflexology, aromatherapy, music therapy, guided imagery, and meditation.

Normally drugs are administered to manage anxiety during pre-and post-operative period, but growing research evidence shows the importance of complementary therapies in the post-operative period. These therapies are practiced to minimize anxiety, headache, pain, duration of hospital stay, use of sedative drugs and to promote relaxation, sleep, satisfaction and well-being of the patient. [23,24]

In certain ailments, meditation improves psychological well-being, self-confidence, relieves stress, facilitates positive experience, reduces pain perception, and improves sleep, headache and vomiting which are common features of postoperative recovery phase. Potential effectiveness of meditation has been recognized for reducing the preoperative anxiety and fear of surgery. The most beneficial complementary and alternative therapy is Yoga-Meditation. [25]

Depression is common in ESRD patients (20-30%) [26] and causes reduced QOL [27], poor adherence to dialysis treatment [28], increased mortality [29] and suicidality. [30] Pharmacological intervention for depression is ineffective for many ESRD patients [31]; therefore, non-pharmacological interventions have been used to treat psychiatric problems including depression. Strategic self-presentation, kidney disease education, supportive psychotherapy and group intervention have been shown to reduce depression and progression of renal disease [32]. Individual cognitive behavioral therapy (CBT) has been shown to improve depressive mood and QOL. [33]

Mindfulness-based cognitive therapy (MBCT) [34], which is related to mindfulness-based stress reduction (MBSR), also shows efficacy in preventing relapse of depression. MBSR can enhance adaptation to distress from chronic illness and has a strong potential for benefit for ESRD patients. [35]

A previous study described telephone-adapted MBSR for patients awaiting kidney transplantation [36], but limited studies have applied MBSR or MBCT to patients with ESRD. Patients with ESRD need intervention focused on their psychological characteristics to reduce medical non-adherence. Individual CBT programs are difficult to apply in clinical settings due to lack of time and the limited number of experts available. Therefore, in one of the pilot study, researchers developed a 12-week group CBT program that included mindfulness meditation, anger management and communication skills training based on conventional CBT [37]. They have measured overall QOL, mood, anxiety and distress in ESRD patients undergoing haemodialysis and suffering from depression, at baseline and after eight and 12 weeks of group CBT to evaluate its effectiveness and feasibility.

Application of group CBT program to chronic ESRD patients undergoing haemodialysis resulted in improvement in overall psychiatric problems such as low QOL, depressive mood, anxiety and stress, which might influence patient's medical compliance. [38]

Meditation may modulate the physiological response to stress through neurohumoral activation, which may be a novel therapeutic target for the treatment of health condition such as Coronary Artery Disease (CAD). [39]

During meditation, mental activity settles down in a natural way, while alertness is maintained and even enhanced. Scientific studies reveal that meditation produces a specific physiological response pattern that involves various biological systems. Mechanism most frequently suggested that meditation produces effects including metabolic autonomic, endocrine, neurological, cardiovascular and psychological responses on a multidimensional interactive basis. [40]

In recent years, a number of articles have demonstrated the benefits of various forms of meditation and mindfulness training. [41] Styles of meditation differ. Some techniques such as concentration meditation, mantra, mindfulness meditation, etc. rely on mind control, including focus on an object, paying attention to the present moment, etc. [42]

Mental training methods also share several key components, such as body relaxation, breathing practice, mental imagery and mindfulness, etc., which will be able to help and accelerate practitioner access to meditative states. [43]

Therefore, integrative body-mind training (IBMT; or simply integrative meditation) was developed in the 1990s, and its effects have been studied in China since 1995. Based on the results from hundreds of adults and children ranging from 4 to 90 years old in China, it is evident that IBMT practice improves emotional and cognitive performance and social behaviour. [41]

Rajyoga meditation is an Indian form of mind body intervention promoted by the “Brahma Kumaris” World Spiritual University. The following of Rajyoga meditation can have beneficial effects on modulating anxiety and cortisol levels in patients undergoing major cardiac surgery. In earlier studies, it was found that in India, the Raj yoga Meditation training program conducted in the preoperative period helped in controlling the anxiety in the patients who underwent open heart surgery and also aid in coping with the stress, especially after cardiac surgery while the patients in the control group continued to be in the state of anxiousness about their surgery and its consequences. [25]

Other mind-body interventions comprise relaxation techniques, hypnosis, yoga, psychotherapy, guided imagery, prayer, dance, music and art therapy. The most well established therapeutic mind-body practice is cognitive-behavioral therapy (CBT) practice which is also considered mainstream behavioural therapy. [19]

Arham Purushakar Meditation: A Holistic Approach

Earlier different types of meditation were tried for the patients on dialysis and beneficial effects were reported. [44,45,46]

In India, Arham Purushakar Meditation (APM) which is a unique, universal, non-pharmacological, non-invasive and easy to follow method of meditation technique revived from Agamas was developed by Upadhyay Shri. Praveen Rishiji. [47] APM suits for people of all ages, from eight to eighty and beyond. It is a Colour therapy, Mantra therapy and Form therapy as shown in Fig 1.

Charge your inner world with the sublime power of WHITE		White represents Knowledge. It helps to overcome confusion. Improves memory and concentration.
Charge your inner world with the vibrant power of RED		Red represents Emotions. It helps to overcome doubt and insecurity, leading to trust & joy
Charge your inner world with the dynamic power of YELLOW		Yellow represents Action & Character. It helps you to bring stability & perfection in your actions.
Charge your inner world with the synergy of GREEN		Green represents Relationships. It has the power to heal negativity between people & groups.
Charge your inner world with the proactive energy of BLUE		Blue represents Planning. It helps you to overcome fear, pain & take decision easily.

Fig - 1: Showing five perfect Colours, Mantras and Forms of APM.

All the matter in the universe is made up of Panch Tatva or the five elements i.e. Jal (water), Agni (fire), Pritvi (earth), Vayu (wind) and Akash (space) in the absence of which neither our body nor brain works, likewise soul has five major properties - knowledge, emotion, character, relationships and planning. Five perfect colours (white, red, yellow, green, blue) and five universal mantra therapies in APM as shown in Table-1, help us to receive the energies of the particular element, thereby nipping the problem in the bud. [48]

Table-1: Showing the relationship of elements of Panch Tatva with the five Colours and Mantra.

Colour	Mantra	Property	Element
White	Namo Arihantanam	Knowledge	Jal Tatva (Water)
Red	Namo Siddhanam	Emotion, Faith	Agni Tatva (Fire)
Yellow	Namo Aayariyanam	Character, Stability	Prithvi Tatva (Earth)
Green	Namo Uvvajhayanam	Relationships	Vayu Tatva (Wind)
Blue	Namo Loye Savva Sahunam	Planning	Akash Tatva (Space)

Every person practicing APM regularly be able to benefit from it, and is nothing to do with any particular caste, creed and religion as there is no mention of any religion or faith in the mantra.

Chanting this mantra of APM in One's mind while meditating brings miraculous outcomes, regardless of religious belief. The meaning of five forms of mantra is to "accept divine energies of great, victorious beings, innovative pioneers, philosophers and all monks and saints in the universe. Indian culture is based on the principal of showing respect to elders. The same is true for APM meditation. Before starting this auspicious meditation an invocation could be done as ***"Iccha-Karenam sandisaha bhagavam. With the permission, blessings and guidance from Dev, Guru and Dharma; I want to embark on the journey of Arham Purushakar Meditation. Please guide my path."***

The form which is focused in this method of meditation is considered as a "pure form", representative of every soul. Looking at this pure form repeatedly ignites purity in our inner self. APM is a promising therapy to strengthen the soul residing within the body, as it assists in opening up one's inner vision thereby facilitating internal transformation and self purification, leading one on the path of divine self- realization.

This ancient thousand year old concept has been used successfully over the years to cure various diseases of people. Colour is a form of energy, which produces certain physiological changes in the human body that help in controlling the diseases. This technique of meditation uses the visible spectrum of colours to cure diseases.

A pilot study was carried out at Bhagawan Mahavir Dialysis Centre, Hyderabad, in CKD patients undergoing haemodialysis. Practicing meditation (APM) daily for 45 minutes showed improvement in clinical conditions and symptoms of anxiety, depression and QOL when compared to the control group who have not done meditation but received haemodialysis, suggesting the beneficial effects of APM in patients with end stage renal disease undergoing haemodialysis.^[49]

It is established that every organ system will have its own vibration energy and disease will occur when the energy is low. By applying, different colours during meditation (APM), energy levels increases and diseases could be treated. Every colour has a certain frequency of wavelength and energy is associated with it. Thus once the colour is absorbed, it stimulates the neuroendocrine system and releases hormones (Sapna Kothari et al, 2018)^[47] and the neurotransmitters control the disease.

As said by Philip F. Tomlinson, who is a teacher of Transcendental Meditation(TM), from Home Dialysis Central ^[50], “***meditation is mental dialysis with which one can cleanse mind of worry while blood is being cleansed***”. Yet further studies in more patients for longer duration and on different parameters are needed to be carried out for its scientific validation and for more scientific output.

CONCLUSION:

Meditation which is a low-cost, no harm intervention is clearly a promising adjunct for patients. There has been a growing increase in experience and research using meditation interventions in CKD and ESKD patients. The studies have been of varying quality and the interventions have shown varied results, though most have reported positive effects of meditation on measures such as anxiety, stress, depression, sleep disorders, and QOL. Considering the high levels of anxiety, stress and depression in people with kidney disease, further research is needed to explore easy applicable meditation interventions, which may increase the overall wellbeing of patients in coping with the demands of chronic disease treated with a life-changing therapy, and improve

experience of undergoing dialysis. Regular and daily practice of meditation (APM) helps individuals in achieving inner peace, happiness and external bliss. Therefore it is well established that ***“meditation is the best medication”***.

ACKNOWLEDGEMENTS:

We are highly indebted to Upadhya Shri. Praveen Rishiji who revived the technique from Agamas for his valuable guidance, supervision and suggestions from time to time in conducting this study.

We are thankful to the patients for their whole hearted support in carrying out the study. We are also thankful to Shri. Gautham Jain and other members of the management of Bhagwan Mahavir Dialysis Centre for providing necessary facilities to conduct this study.

We are also thankful to Smt. Ratna, Smt. Manju, Smt. Vanitha, Smt. Achira, Sri Varun Surana, Sri. Rukka Reddy, Mr. Venkat, Mr. Venu, Smt. Ranjana, Smt. Reshmi, Sri Paras, Smt. Sharadamba and all other staff members of Bhagwan Mahavir Dialysis Centre, for their help in many ways in conducting the study and preparation of the manuscript.

We are also grateful to Shri. Motilal Jain, Chairman, Shri. Mahendra Ranka, Vice-Chairman and Shri. Sushil Kapadia, Managing Trustee of Bhagwan Mahavir Memorial Trust for their encouragement and support.

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