Role of Vethathiri Maharishi’s Kaya Kalpa Technique and Simplified Physical Exercise (Maharasana) in the Management of Type-2 Diabetes Mellitus-A Pilot Trial

V.M. Rajasekaran¹, K. Perumal²
¹Bharathiar University, Coimbatore, Tamilnadu, India
²Department of WCSC-Vision for Wisdom (Academy), Aliyar, Tamilnadu, India

Abstract
Kayakalpa Yoga is the rejuvenating technique which was discovered by our ancient Indian siddhars and lost during the course of time. This was once again brought back by our swamiji in an easily understandable way. KAYA - BODY AND KALPA - IMMORTAL. Vethathiri maharishi a qualified physician of indigenous medicine has developed kayakalpa yoga is a complete science which integrates physics, biology, physiology, philosophy, genetics and yoga. This philosophy of kayakalpa yoga delineates the manner in which the human being can be enhanced by proper integration of physical body, mind, bio-magnetism ,life force ,sexual vital fluid. Swamiji vethathiri maharishi founded the simplified kundalini yoga for the benefit of humanity, and he recommended the kaya kalpa technique and simplified physical exercises (Maharasana) for better health. Diabetes will create an additional financial and social burden on the public health sector. Literature reviews revealed that exercises help to reduce the blood sugar level and high blood pressure. Maharasana is a simplified physical exercise given by our vethathiri maharishi for tonning up the whole body and to strengthen our mind. Hence, yogic exercises may be useful to combat various diseases. The purpose and aim of this study were to assess and reduce the signs and symptoms of type II diabetes i.e., BP, and HbA1C, blood glucose levels, among diabetic patients through a 12 week VETHATHIRI MAHARISHI’S kaya kalpa technique and simplified physical exercises (maharasana) program. The findings conclude that this vethathiri maharishi yoga program could potentially be a reduction option for hyperglycemia on type 2 diabetes patients and many patients reported a feeling of well being, more relaxed and satisfied, and a sense of relief from anxiety.

Keywords: kayakalpa yoga, body, life force, Bio-magnetism, sexual vital fluid, mind, Type-2 diabetic mellitus, Maharasana

INTRODUCTION
“By sublimating and recycling the sexual vital fluid Kayakalpa frees you from a variety of earth bound ills.”

Value of Kayakalpa Yoga (Yogiraj Vethathiri Maharishi)
Disease, old age, and death are the three major problems which have been engaging the attention of medical scientists for centuries, and in a different way, that of philosophers as well. Vethathiri maharishi introduced a different yogic technique that is Kaya kalpa (Kaya means body and kalpa means immortal [1, 2] and simplified physical exercises (Maharasana) technique. Swamiji says; for maintaining good health one should guard against disturbance in the physical body, the life force and the three Medias. Hence, the only course of action open to us is to raise our immunity level. So through suitable physical exercises, man can develop and increase his immunity level.

Three Medias; blood, heat and air, are circulating in the human system, one within the other according to their specific gravity and they are governed by centripetal pull exercised by the earth when the normal
position of the body is altered (or) when a part of the body is moved or turned towards the earth or away from it, the location of the three Media in that portion or part is also altered. When a part of the body is turned towards the earth a little more blood flows to the part and little more air goes to the other side or part of the body which is upward.

In addition to this, if a rhythmic movement is also given, all the three Media are suitably regulated. Through such systemic and well regulated movements, the various parts of the body get cleansed, strengthened and rejuvenated. Thus, we can through proper physical exercises achieve a level of immunity against diseases which will enable us to maintain good health.

Life force plays the main role in the functioning of the human system. Among the five elements; solid, liquid, heat, air and akash; akash is the life force. The subtle life force and gross solid body are linked together by three Medias if the normal quantity and quality of these Medias and the space of their circulation within the human system adversely affected in anyway, the life force in its electrical function gets short circuited and the molecular arrangement in the physical body is disturbed or punctured [3].

As a result, the life force gets obstructed, diverted or exhausted in proportion to the extent of the disturbance and the intensity of the short circuit. Whenever there is such a disturbance it is called pain. If the disturbance is more intense, the pain is also more, as there is a corresponding increase in the exhaustion of the life force. If the disturbance is for a short period, it is known as ‘pain’, if it extends over a long period, it is known as ‘disease’. If the disturbance is of such magnitude that a major portion of the life force is exhausted, the functioning of the physical body gets paralyzed and comes to stand still, such a condition is known as ‘death’ [4].

From the above analysis it will be clear that for maintaining good health one should guard against disturbances in the physical body, life force and the three Medias. So these three Medias and life force of man should be guarded to maintain good health. Vethathri swamiji give Maharasana exercises which will be suitable for all climates, and practiced many of them and observed their results and these exercises (1) oxygenize the human body, (2) purify the blood and regulate its circulation, (3) rejuvenate the whole system and (4) help to build up a very high level of immunity against diseases.

**DIABETES**

Diabetes Mellitus is metabolic cum vascular syndrome of multiple etiologies characterized by chronic hyperglycemia with disturbance of carbohydrates, fat and protein metabolism resulting from effects in insulin secretion, insulin action or both.

This disorder is frequently associated with long term damage, which can lead to failure of organs like eyes, kidneys, nerves, heart and blood vessels. Most affected patients (90%) have type-2 diabetes, a chronic progressive disease characterized by insulin resistance due to abdominal obesity and relative insulin deficiency due to progressive deterioration of pancreatic beta-cell function.

The prevalence of diabetes mellitus is expected to double over the next 20 years, based on aging of the population and the rate of urbanization; this increase will be seen worldwide, in developed as well as in developing countries, and will create an additional financial and social burden on the public health sector.

Over centuries man has discovered that through suitable physical exercises, he can decrease his blood glucose level so that he may guard against ill health. The purpose of this study were to assess the signs and symptoms of type-2 diabetes i.e., BP, and HbA1C, blood glucose levels, among diabetic patients through a 12 week Vethathiri maharishi’s Kayakalpa technique and simplified physical exercises (Maharasana) program.

**METHODS, DESIGN AND SETTING**

This study used a single group, open labeled controlled trial design. After Human Subjects Committee’s approval was obtained, participants were recruited via messages that were delivered to old patients, to be eligible,
participants had to be between 40 and 65 years of age, non-exercisers for the previous 12 months and they had impaired fasting glucose (FBG >125 mg/dl) and postprandial glucose (PPBG >160 mg/dl); hypertension (systolic BP/diastolic BP: above 120/above 80 mmHg). Persons who were pregnant, those who had used any drug to reduce their blood cholesterol level, BP or glucose, or those who had a physical disability that would limit their ability to practice yoga were excluded from the study. We confirmed their eligibility with screening tests for glucose and BP at the Jothi siddha clinic and laboratory. A copy of the consent form was sent for their review prior to their screening visit to the clinic. We reviewed the study details described in the consent form with them in person and responded to their questions before they signed the consent form.

Fifteen participants were directly assigned to a Maharishi yoga intervention group.

**Intervention or Experimental Procedure**

Participants in the intervention group were asked to maintain their current activity levels during the intervention. The intervention group participated in a 3 month Vethathiri maharishi’s style of yoga practice intervention program developed and led by a certified yoga instructor in the temple of consciousness at, Aliyar (Coimbatore district), Tamilnadu.

**VETHATHIRI MAHARISHI PHILOSOPHY OF KAYAKALPA**

An Explanation

In order to understand the science of Kayakalpa, (Figure 1) we have to study the functioning of the human system.

**Physical Body**

Body is made up of millions of cells. Life force is the cause for the body to function.

**Sexual Vital Fluid**

It is the container of the life energy life particle. We eat food transformed in to seven dhatus and the seventh is the SVF.

**Conversion of Seven Dhatus**

Juice - Blood - Flesh - Fat - Bone - Marrow - SVF (Ojus=Vital Energy).

**Life Force**

(Life force in the form of smallest energy particles runs throughout the body. In the process of their spinning they produce bio-magnetic waves).

Maharishi say’s, sum total of all the force energy particle, together is called life force which is the greatest contribution by Vethathiri maharishi [5].

**Bio-magnetism**

It’s generated within the physical body. Life force particles liberate formative dust particles are called bio-magnetism [6].

**Mind**

The life force particles are spent during the body and mind functions.

This bio-magnetism in dense form is responsible for all our physical and mental activity.

The extension of bio-magnetism through senses and through brain as thought wave is called mind [7].

**STEPS IN KAYAKALPA TECHNIQUE**

1. Toning up of nerves.
2. Ojus breathe [8].

Thanks to The Spiritual Scientist Vethathiri Maharishi.
STEPs in Maharasana Exercises

There are two aspects of Maharasana exercises:
- In part A of Maharasana the basic posture is lying down flat on the back.
- In part B of Maharasana the basic position is lying on one’s stomach [9].

All postures were modified to meet the participants’ needs and to assure safety. Each session of the yoga program began with a warm-up (5 min) and ended with a relaxation period (10 min). To facilitate and guide home practice, participants were given an audio recording (CD) of the yoga instructions recorded by the yoga instructor. Group sessions were held twice per week.

Participants were expected to practice yoga at home and record the number of minutes they engaged in yoga per day, but there was no certain amount or frequency required. The components of our intervention using Vethathiri maharishi’s style yoga are detailed above.

MEASURES

Clinical Measures
Blood Pressure, blood glucose and HbA1C were obtained at baseline and at the end of three months. The blood test required a 12 h fast (no food or drink, except water and medications); 20 ml of blood was obtained via a venipuncture in the arm with the individual in an upright position and after at least 5 min in a resting state. During the measurements, we were available to answer any questions and participants were asked not to discuss their program with the clinic staff. Participants were asked to describe their demographic and co-morbidity profile at baseline and complete questionnaires on exercise self-efficacy at baseline and at the end of three months. Acceptability of the yoga intervention was evaluated at the end of the yoga intervention by the Yoga Program Satisfaction Questionnaire.

ANALYSIS

Statistical analyses were performed with SPSS version 12.0 for Windows. We used the paired t-test to determine within-group differences of...
biochemical parameters before (baseline) and after the intervention. For descriptive purposes, the results are expressed as untransformed and unadjusted mean values. Continuous variables are expressed as mean±SD, and categorical variables are expressed as absolute numbers. A two-tailed value of P less than 0.05 was considered significant.

RESULTS
15 subjects enrolled in this study Table 1 shown the description of subjects. All subjects completed the studies. Clinically significant differences were observed between the baseline and day 90. Mean Fasting blood glucose, postprandial glucose, HbA1c, Blood pressure values at screening were baseline and day 90. In this study, statistically significantly greater (P≤0.001) mean decreases from baseline to day 90 were observed in the group for Fasting blood glucose 115.1±11.5 to 92.8±11.7, postprandial glucose 203±12.5 to 178±11.5, HbA1c 8±1.2 to 6±0.8, Blood pressure Systolic 141±5 to 121.5±5.5 and Diastolic 85±4.2 to 80±2.5 (see Table 2).

Descriptive Statistics

<table>
<thead>
<tr>
<th>Patients</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>8</td>
<td>53.34</td>
</tr>
<tr>
<td>Male</td>
<td>7</td>
<td>46.66</td>
</tr>
<tr>
<td>Mean Age</td>
<td>45</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Before Treatment(SD)</th>
<th>After Treatment(SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fasting blood glucose</td>
<td>115.1±11.5</td>
<td>92.8±11.7</td>
</tr>
<tr>
<td>postprandial glucose</td>
<td>203±12.5</td>
<td>178±11.5</td>
</tr>
<tr>
<td>HbA1c</td>
<td>8±1.2</td>
<td>6±0.8</td>
</tr>
<tr>
<td>Blood pressure Systolic</td>
<td>141±5</td>
<td>121.5±5.5</td>
</tr>
<tr>
<td>Bloodpressure Diastolic</td>
<td>85±4.2</td>
<td>80±2.5</td>
</tr>
</tbody>
</table>

DISCUSSION
This pilot study assessed the feasibility of implementing Vethathiri maharishi’s yoga program among adults at type-2 diabetes. The preliminary study results indicate that this yoga program is feasible and acceptable to this population. Participants in the yoga group showed increased confidence over time in recommending the yoga program to their friends who are at high risk for type-2 diabetes and expressed high satisfaction with the program.

There was significant decrease in FBS, PPBS, HbA1c values in both sex who underwent the three months Maharasana Exercises and Kayakalpa practice. As participants were asked not to change their exercise level by initiating any new form of exercise during this study, we limited our recommendations for physical activity to emphasizing the importance of being active in day-to-day life.

Addition to all above effects, following simplified physical exercise (Maharasan) and Kayakalpa yoga, many patients reported a feeling of well being, more relaxed and satisfied, and a sense of relief from anxiety. While the small sample limits the generalizability of our findings, the randomized, controlled trial design helps to better understand the benefits of the intervention program, because such a design permits allocation of participants that minimizes any bias from known and unknown determinants of outcome.

CONCLUSION
In summary, the results of this pilot study suggest that this yoga program could potentially be a reduction option for hyperglycemia on type-2 diabetes patients. Anecdotal comments by study participants revealed that they perceived improvement in their strength, flexibility and balance after practicing yoga.

Hence yoga, an anxiety reducing intervention may be practiced as adjuvant therapy by type-2 diabetics to reduce long term complications. Hence Vethathiri maharishi’s Maharasana exercises and Kaya kalpa technique can reduces the stress and play a major role in improving diabetic control and preventions of complications. Hence doing Maharasana exercise rejuvenates the pancreatic cells and increase insulin secretion. However this study
was limited by smaller sample size and short duration of the intervention.

We recommend that future studies involving Vethathri maharishi’s yoga obtain objective measures of hormones, blood sugar and other metabolic activity related to diabetes for longer durations.

REFERENCES