



**ROLE OF MEDITATION IN PREVENTION AND CURE OF LIFE STYLE DISORDERS
LIKE DIABETES AND HYPERTENSION**

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Article Received on 22/03/2022

Article Revised on 11/04/2022

Article Accepted on 01/05/2022

ABSTRACT

Ayurveda and Yog science play a crucial role in Life style disorders. Effect of regular practice of meditation can moderate our physiological response to stress, lower diabetic and hypertensive markers and, cure lifestyle disorders due to stress like Diabetes and Hypertension. The effect of stress secretes the hormones to defend the stress response of fight or flight mechanism. But the excess secretion of cortisol which increases glucose & blood pressure levels result in Diabetes & Hypertension Regular practice of meditation i.e., Dhyana results in cool & calm the hypothalamus which ultimate result in remission of Diabetes and Hypertension.

KEYWORDS: *Cortisol, Meditation, Lifestyle disorders, hypothalamus.*

INTRODUCTION

Diabetic and Hypertensive patients are increasing day by day. Hypertension and Diabetes are life style disorders and related to psycho-somatic disorders. These patients should modify lifestyle that is daily regimen, Dincharya as per Ayurveda prescribed. Meditation shows improvement in Hypertensive and Diabetic patients to control their parameters.

There are different types of meditation. Research presented at an American Diabetes Association conference showed mindfulness meditation is beneficial for people with diabetes. Quiet contemplation helps you put aside worries about the past and future. The motions of breathing can bring you into the present moment. This helps you quiet the mind. Mindfulness meditation relieves anxiety and depression.

Definition of Meditation

Meditation is the way of relaxing the mind through techniques like focusing and controlled breathing process.

The Soham meditation regulates attention, mental action of emotional processing which change the hormone secretion by sequence from hypothalamus to pituitary & pituitary to rest endocrine glands.

Meditation also activates our bodies' "rest-and-digest" functions, which counteracts our "flight-orfight"

responses. Integrating the practice into a daily routine has been linked to lower heart rate and blood pressure, which may lower your risk of heart disease.

Benefits of Meditation

Meditation principles integrate the mind and body through movements and breathing. It brings tranquility, better health and helps to think more clearly. It is a "mind, body and spirit practice," which can improve mental and physical health. If mind wanders, refocus and awareness on the specific object. After time, this helps in concentration process.

A study in the Archives of Internal Medicine showed transcendental meditation can help people with diabetes control their blood sugar levels. It can also lower blood pressure and reduce insulin resistance. Meditation is also used to relieve chronic pain. People with diabetes who have nerve pain-neuropathy or back pain are subject to increased stress and blood sugar levels. Reducing pain through meditation minimizes anxiety and related health problems as well as blood sugar readings. Use blood pressure monitors or blood pressure machines before and after meditation sessions to gauge your progress. Have a glucose meter handy to keep track of your blood sugar levels prior and subsequent to meditation. Give yourself a few weeks to master the techniques and start seeing real results.

Exercise trains the body and meditation train the mind. Many people with diabetes find meditation is a good way to reduce stress, lower blood sugar levels, lower blood pressure readings and minimize pain. Regular meditation should become an important part of your diabetes selfmanagement program.

With regular practice of meditation twice in a day shown the extraordinary effect to control the diabetes & high blood pressure.

MATERIALS AND METHODOLOGY

Meditation Sessions for 90 days duration including criteria as the Diabetic and Hypertensive total 30 patients irrespective of their age, sex, religion and occupation etc.

We educate the diabetic & hypertensive patients about the pathophysiology of stress & disease as well as parallelly educate for impact of meditation to make the reverse impact.

Follow ups

Patients are observed before, during and after the Mediation duration of 90 days and observational parameters like blood sugar levels, Blood pressure and heart rate are checked per week and recorded.

OBSERVATIONS AND RESULTS

After 90 days we observed the results that Hypertensive patients get improvement in settling blood pressure levels on an average by 10 to 20 mm of Hg and diabetic patients get results in stress induced diabetes by average drop down of 10 mg/dl in blood glucose levels in random and fasting and postprandial sugar levels.

Meditation reduce the stress & cure diabetes by controlling the secretion of excess sugar in the blood stream. Meditation relax the hypothalamus which result in the reaction delayed by hypothalamus due to which the hormones secretion decrease for stress response for increasing glucose level as well as blood pressure.

Meditation boosts the gamma amino butyric acid (GABA- A neuro transmitter) is an inhibitory neurotransmitter & can block or impede neural signals which work to soothe & help neurons recover after firing. This in turn decrease the effect of anxiety & stress. Due to which the result to control excess sugar level generation against stress effect.

Regular practice of meditation increase the calming response throughout the body which in turn results in controlling the diabetes & blood pressure.

Meditation Impact on body's fight or flight Mechanism

To understand the stress response of diabetes, let's go back to the basic human response towards a fight or flight situation., In Stress the primal instinct pushes it to

find response to create the energy needed to tackle the situation.

The stress hormone called cortisol is evolved, which further signals to liver to release stored sugar into bloodstream. In wild animal, this extra sugar would be used up in the intense physical activity as a fight or flight response.

However, when there is no such outlet, the sugar level increase in blood stream. Studies have shown the meditation counters stress & bring out positive change in the body. Meditation remarkably improve physiological function, it relaxes the body & mind leading to reduced stress with higher average level of serotonin.

The studies shows that the meditation brings a balance in autonomous nervous system & regulates metabolic parameter that is blood pressure glucose level by stabilizing sympathetic & parasympathetic nervous system.

The mechanism of action of meditation appears to operate through parasympathetic activation & the associated anti stress mechanism.

It reduces perceived stress & hypothalamus and pituitary adrenal (HPA) axis activation thereby improving overall metabolic & psychological profiles increasing insulin sensitivity & improving glucose tolerance.

While type 2 diabetes is influenced by psycho-neuro endocrine & immune mechanism, meditation appears to impact positive role in combating stressors and improving these system to regain health.

Mode of action of Meditation on our body to lower the hypertension and glucose levels

Regular Meditation practice helps people reduce their bodies' responses to stress by lowering blood pressure, slowing heart rate, reducing oxygen intake, and changing the brain waves to a more relaxed state. Moderating the stress response also helps to lower blood glucose levels. Meditating daily can lower blood pressure and reduce dependence on medication. Relaxation techniques open up blood vessels, which in turn lowers blood pressure.

The practice of the Transcendental Meditation technique decreased insulin resistance and a lowering the blood glucose level.

People with diabetes can help decrease the risk of high blood pressure and cardiovascular disease by controlling their blood sugar levels through meditation.

It reduces oxidative stress and decrease in blood glucose level and glycosylated hemoglobin (HbA1C) concentration in Cardio vascular disease patients and that changes were more marked in our meditation group.

Effective meditative techniques have been shown to reduce mental stress and hormone release. Cortisol, one of those hormones, can raise blood sugars when elevated.

DISCUSSION

Using meditation for high blood pressure been shown to increase the amount of nitric oxide in your body, a compound that can widen blood vessels and make it easier for blood to flow freely when the heart is pumping.

Meditation helps minimize stress levels and lowers blood pressure. It reduces levels of stress hormones including cortisol, norepinephrine and epinephrine. Hormones such as cortisol contribute toward weight gain, belly fat and insulin resistance. Insulin resistance increases diabetes risk. Excess weight increases the risk of diabetes, high blood pressure and related heart problems.

CONCLUSION

With the help of regular meditation practice patients experience soothing effect with settled, stress free calm mind. Also, they reduce down the trouble of insomnia which in turns result to control diabetes by controlled blood sugar as well as blood pressure parameters.

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