ABSTRACT

TITLE

Effect of Integrated Yoga Module on Fasting Blood sugar and Postprandial Blood sugar in Type 2 Diabetes

BACKGROUND

The prevalence of diabetes in the World increased tenfold, from 1.2% to 12.1%, between 1971 and 2000. It is estimated that 61.3 million people aged 20-79 years live with diabetes in India (2011 estimates) dubiously making India as the Diabetes Capital of the World1,2,3. This number is expected to increase to 101.2 million by 2030. 77.2 million in India have pre-diabetes. In 2012, about 1 million people died from diabetes in India. Further compounding the problem, nearly 52% of Indians aren't aware that they are suffering from high blood sugar and 44 lakh Indians in their most productive years — aged 20 to 79 years are in this category4. Diabetes Mellitus, seriously exposes them to the risk of heart attack, stroke, amputations, nerve damage, blindness kidney disease and learning disabilities. Yoga therapy strikes at the root of many factors (including lifestyle) that can be attributed to the ten-fold spurt in prevalence of this disease. It particularly helps patients who have pre-diabetes. Being non-invasive, cost effective and safe intervention with excellent outcomes, as evidence and data mounts on INTEGRATED YOGA MODULE, one day, “Evidence based Medicine” will be the core therapy for treatment /management of DM. Studies have been reported, highlighting the potential role of Yoga therapy in the treatment of not only enhancing positive emotions and improving mindfulness (that overcomes learning disabilities) but also directly helps in management of DM and its consequential impact.

AIMS

The aim of the study is to assess the effect of Integrated Yoga Module on Fasting Blood Sugar and Post-Prandial Blood Sugar in Type 2 diabetes.

METHODOLOGY

44 participants with diabetes within an age range from 30-70 years from Yalahanka and Uttarahalli area enrolled in the study. All the participants were given the Integrated Yoga Module (as per table 5.1) which included asanas, pranayama, relaxation practices, and meditation classes for a period of two week. An introduction of the study, a comprehensive questionnaire and written informed signed consent was taken from all the participants at the commencement of the study. Assessment was done using calibrated electronic glucometer and fasting blood sugar and postprandial blood sugar was collected before and after Yoga Module intervention .The study also focused on personalization of INTEGRATED YOGA MODULE based on profiling of the participants leading to better outcomes compared to a standard protocol based therapy.

RESULTS

The mean Fasting Blood Sugar (FBS) for participants dropped by 16.9% (form 140 to 122) and the mean Postprandial Blood Sugar (PPBS) for participants dropped by 34.5% from 201 to 173.

CONCLUSION

The effect of integrated Yoga Module may be found to be significantly improving Blood Sugar Regulation viz., FBS and PPBS. Both showed marked improvement. The “P Value” indicates the high relevance of the outcome of this study($p<0.00$). The Mean (M) plus Standard Deviation (SD) before Yoga Module intervention FBS (Prefbs) is 140 ±46.16and the Pre-Yoga Module intervention PPBS (Preppbs) is 201 ±70.5. Post Yoga Module intervention, the Mean (M) plus Standard Deviation (SD) FBS (Postfbs) dropped to 122 ±37.7. Similarly after the Yoga Module intervention the Mean (M) plus Standard deviation (SD) PPBS (PostPPBS) dropped to 173 ±54.6.

KEYWORDS

Diabetes Mellitus (DM), Diabetes Mellitus Management, Blood Glucose Regulation, Learning Ability, Psychosomatic diseases and integrated Yoga Module.