

Case Report

Deal with Diabetes in Yogic Way –A Case Study

Saha S*Scholar, Faculty of Health & Wellness, Sri University,
India***Corresponding author: Saha S**Sudipta Saha, Scholar, Faculty of Health & Wellness, Sri
University, Cuttack, Odisha, India**Received:** January 23, 2023; **Accepted:** March 02, 2023;**Published:** March 09, 2023**Abstract**

Diabetes has become an epidemic for past few years worldwide. It is a condition when blood glucose level rises abnormally and can't be used by the cells of the body because of no or poor production of the insulin by the pancreas. It can lead to serious damage to the heart, eyes, kidneys, feet, blood vessels and nerves over time, if proper care has not been taken in time. Being in yoga profession, I have come across a few people who are diabetes patients of type II category. I make them practice some simple yoga postures combined with breathing techniques to see the change in their condition. All the practitioners reported positive results. However, one case report has been taken for this article. A male subject of age 67 years, with yogic intervention overcomes his fluctuating sugar level and the same have come down to normal range only after a few months of practice. Diabetes is one of the major non-communicable killer diseases nowadays, but Yoga can be a key support to improve the condition with other health care treatment. People of varied capacity and age groups may practice them for the management of diabetes.

Keywords: Yoga; Diabetes; Yogic Way; Combined Yogic Practice; Case Study

Introduction

Diabetes is one of the major non-communicable killer diseases at the present time. This lifestyle disease has become a common occurrence for past few years worldwide. It is a condition when blood glucose level rises abnormally and can't be used by the cells of the body because of no or poor production of insulin by the pancreas due to mainly different lifestyle causes. It can lead to serious damage to the heart, blood vessels, eyes, kidneys, feet and nerves over time, if proper care has not been taken in time. Until recently, India had more diabetics than any other country in the world, according to the International Diabetes Foundation, although the country has now been surpassed in the top spot by China. According to International Diabetes Federation (IDF), "India is one of the 6 countries of the IDF South East Asia region. 425 million people have diabetes in the world and 82 million people in the SEA Region; by 2045 this will rise to 151 million. There were over 72.946.400 cases of diabetes in India in 2017." Being in yoga profession, I

have come across a few people who were diabetes patients of type II category. They have been made to practice some simple yoga postures, some of which were combined with pranayama techniques. There are many cases where positive results have been reported by the practitioners after 4 to 6 months of those yogic practices. One case report has been taken for this article. A male subject of age 67 years, who is practicing yogic techniques for more than 6 months. The Practitioner overcomes his fluctuating sugar level and the same have come down to normal range only after 4 months of practice.

Objective

The purpose of this study is to observe the effect of some combined yogic methods for type 2 diabetes patients. The objective of this study is to find a way to support the medical treatment available for the cause of diabetes with yogic practices and to strengthen the health conditions the patient faster.

Method

It is a case observation study. It is about the application of some combined yogic practices and the observation of their effects on a human body diagnosed with diabetes.

Subject

A male of age 67 years, height 5'4" and weight 63 kg, had a history of insomnia and type 2 diabetes for past few years. Before joining yoga class, he had a fluctuating blood sugar level, in both cases of Fasting Plasma Glucose (FPG) and Postprandial Plasma Glucose (PPG). He had quite inflexible joints in the lower part of the body when he joined yoga class but no extreme blood pressure issue.

Intervention

The yoga sessions have been conducted for 5 days in a week. Each session of a little more than one hour, has been comprised of the following yogic means:

Om Chanting 3 times and Starting Prayer

Loosening exercises

- Jogging with variations - 3 minutes
- Neck and all Joints rotation with breathing awareness - 5 minutes either in sitting or in standing position
- Titli asana with variations with normal breathing and directed breathing, 3 rounds of 30 to 50 counts

Yogasana (either with normal breathing or in combination with directed breathing with short pause in between two asanas)

In sitting:

- Body rotation in sukhasana or Chakki Chalanasana, clockwise and anti-clockwise, 5 rounds with breathing awareness
- Body Twisting in sukhasana or Vakrasana, 3 to 4 times, the last round with directed breathing for 10 to 15 counts each side
- Yoga mudra asana and/or Pashchimottanasana, 2 times, in synchronization with the breath in final position for 15 to 20 seconds
- Setu asana or saral matsyasana with normal breathing one time as counter pose for about 10 to 15 seconds
- Marjari Asana 5 times with active inhalation and exhalation, with retention of breath for 4-5 seconds in both cases.
- Shishu Asana for 20 to 30 seconds with normal breathing.

In standing

- Nataraj asana or Vrikshasana 30 seconds to 1 minute with normal breathing
- Trikonasana variations and/or Vir Bhadrasana Variations for 2 times each side for 10 to 15 seconds with normal breathing
- Tadasana 3 rounds of about 15 seconds, last round with active inhalation and exhalation with variation for 15 to 20 counts,
- Tiryaka Tadasana dynamically 5 rounds each side with normal breathing,
- Kati Chakrasana with variations, minimum 30 times each side, last 10 rounds with active breathing co-ordination.
- Surya Namaskar with normal breathing 3 to 5 rounds followed by Shavasana,

In lying (holding of each posture for 10 to 15 counts with breathing awareness) –

- Supta Udarakarshanashana or sva udarakarshanasana 5 times each side with breathing variation
- Utthan padasana 5 times each leg and both legs with or without variation with normal breathing
- Sarvangasana one time 5 to 8 seconds
- Setu Bandhasana with directed inhalation-exhalation and pawan muktasana alternatively for 3 to 4 rounds.
- Naukasana for 2 rounds with active breathing.
- Shalabhasana with variations for 2 rounds with directed breathing.
- Bhujangasana - 3 rounds with variation or 5 rounds with active breathing, if Surya Namaskar is not practiced in any day
- Vipareeta shalabhasana with variations 2 to 4 times
- Dhanurasana 2 times with normal breathing

Relaxation (5 to 8 minutes) –

Relaxation with awareness in Shavasana or short Yoga Nidra.

Pranayama and Meditation

- Kapalabhati pranayama or Bhastrika pranayama with variations- 3 rounds, 20 counts each round
- Bhramari pranayama - 5 to 9 rounds
- Short awareness meditation for 5 to 10 minutes,
- Nadi Shodhana Pranayama 5 to 9 rounds followed by ending prayer.

Observation and Findings

He joined yoga class in the month of May, 2022.

His blood sugar level (both FPG & PPG) as clinically measured in last few months before joining the yoga class, is given below with date:

| | | |
|------------|-----------|-----------|
| 18/01/2022 | FPG – 127 | PPG – 195 |
| 25/02/2022 | FPG – 117 | PPG – 167 |
| 12/04/2022 | FPG – 131 | PPG – 150 |
| 18/05/2022 | FPG – 122 | PPG – 173 |

After joining yoga class, his blood sugar report as measured after one month onward is given below:

| | | |
|------------|-----------|-----------|
| 15/06/2022 | FPG – 108 | PPG – 160 |
| 23/08/2022 | FPG – 113 | PPG – 145 |
| 20/10/2022 | FPG – 110 | PPG – 153 |

Approximately 6 months after joining yoga class in the month of May, 2022, his blood sugar level as investigated so far, is given below:

| | | |
|------------|-----------|-----------|
| 03/12/2022 | FPG – 105 | PPG – 148 |
| 10/01/2023 | FPG – 103 | PPG – 140 |

It is observed from the above clinical investigations that the blood sugar level of the subject of this study is more stable after regular yogic intervention. During this whole period, he continues with his normal diet and medicine intake for diabetes, the dose of which has been reduced recently. It has also been noticed that at the beginning he was used to come late to yoga class, as he could not wake up early in the morning. In the first month, he was irregular. In the second month, he was regular but continued to be late. For last more than two months he came regularly and on time for yoga session. Moreover, he was used to take sleeping pills before going to bed at night, now he stopped taking that medicine for last two months. He also

has reported to have the feeling of more energy throughout the day.

Conclusion

There are varieties of yogic ways to deal the condition of diabetes. Writer observes that the practices combining asana with breathing processes can enhance the effectiveness of the practice. Here the yogic practices have been chosen according to the capabilities of the practitioners. People of varied capacity and age groups can practice those yogic methods for the management of diabetes, if not suffering from any other critical health problems. Not only had the subject of this study but other practitioners also reported to have been benefitted by the same yogic practices. Uses of allopathic medicines to deal with diabetes and other diseases may be helpful but can have side effects with time; however, the yogic intervention can be supportive for the better management of the conditions and can lead towards a healthier way of living without any side effects.

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