Research Article

Yagya Therapy Treatment Reduced Blood Glucose Level in Diabetic Patients in 2 weeks - a Single Arm Study

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Abstract. Diabetes is a disease that occurs when blood glucose level is too high. To control blood glucose levels in diabetic patients, modern therapies with a healthy diet and regular physical activity has been a good approach for the management of the diabetes. However, the disease eventually becomes deepen in most of the patients with age, and current approaches are not sufficient, demanding supportive and alternative approaches. The present paper portrays a contextual analysis of the impact of Yagya Therapy on diabetic level (HbA1C) in 2 weeks, using an appropriate herbal formulation on 10 patients, who had been experiencing diabetes since recent years. 10 diabetic patients (5 males and 5 females) on allopathic medicine for past more than 1 year without any change in medication and dose in past 3 months participated in the study. They were given 13 days of Yagya Therapy twice a day and their pre and post blood level of fasting glucose, Post Prandial (PP) glucose, and HbA1C were measured. Among 10 patients only 6 had attended nearly all of the sessions. Among 6 Patient, all of them showed reduction in the HbA1c value. The four of the patients, it was remarkable HbA1c difference i.e. 0.4, 0.4, 0.3, 0.2 respectively indicating impressive results i.e. affecting 3 months glucose sugar average and producing reduction in them with just 26 sessions in 13 days. The present study indicated Yagya therapy as a potential supportive and alternative solution in the management of diabetes. The increase in the time duration of the Yagya Therapy for more than 3-6 months may give the desired results for managing the diabetes.

Keywords. Yagya Therapy, Diabetes, Herbs, HbA1c, Glucose level, Fasting, Post Prandial

Introduction

Diabetes is a disease that occurs when blood glucose level is too high. Blood glucose is the main source of energy and comes from the food we eat. Insulin, a hormone made by the pancreas, helps food glucose to absorb in blood stream and into cells for generating energy. In certain conditions, body doesn't make enough insulin or doesn't utilize insulin well and glucose level stays in the blood (1) and leads to the diseased condition.

According to the World Health Organization report, diabetes is a growing global challenge, where in India estimated 8.7% population in the age group of 20 and 70 years is diabetic.

To control blood glucose levels in diabetic patients, modern therapies with a healthy diet and regular physical activity has been a good approach for the management of the diabetes (2). However, the disease eventually becomes deepen in most of the patients with age, and current approaches are not sufficient, demanding supportive and alternative approaches.

One such traditional Indian approach is Yagya Therapy. In this method, grained powder of different anti-diabetic traditional herbs is sacrificed in the fully ignited fire of Yagya in the presence of Mantras and resultant herbal smoke is inhaled by patient providing therapeutic advantage (3-6). This system of Yagya Therapy is just not anecdotally mentioned approach, but it is well in practice in Indian culture in numerous social practices for health benefit and curing illness (7).

Yagya Therapy as an inward breath of herbal fumes has indicated numerous helpful advantages in multi drug resistance tuberculosis (8-9), emotional well-being (10), HIV contamination (11), and in cancer patients (12).

Therapeutic plants such as Turmeric (*Curcuma longa*) (13-14), Nirmali (*Strychnos potatorum*) (15-16), etc. have indicated an advantage in diabetes treatment. Considering it, the application of Yagya Therapy utilizing selected herbs can be a gainful methodology for the management of diabetes. The present paper portrays a contextual analysis of the impact of Yagya Therapy on diabetic level (HbA1C) in 2 weeks, using an appropriate herbal formulation on 10 patients, who had been experiencing diabetes since recent years.

Methods

Patient history and course of treatment

In the present study, 10 diabetic patients (5 male and 5 females) participated who had been suffering from diabetes for more than 1 year. They all were on allopathic medication. None of them have changed the medication or the dose of the medication in past 3 months. Their consent to participate in the short term (13 days) study was taken. They participated in the Yagya twice a day for 1 hour for 13 days. The herbal inhalation through Pranayam for 15 minutes was included in the 1 hour of treatment. Initial 45 minutes were Yagya ritual. The Yagya Therapy was continued for 13 days. Before and after the 13 days of Yagya Therapy patients were evaluated.

Patient Evaluation

Pre and post blood reports of Fasting, Post Prandial glucose level test and 3 months glucose sugar average (HbA1c level) was measured at Shantikunj Hospital. All reports were generated at the single pathology lab with diagnostic kit of the same lot.

Procedure of Yagya and herbal preparation and dietary intake

Patient was educated by the Department regarding Ayurveda and Holistic Health (DAHH), Dev Sanskriti University, Haridwar to pursue the standard convention of Yagya. Yagya was performed at the Yagyavalkya Center for Yagya Research at 7 am- 8 am and 4 pm- 5 pm. All patients were given 10 ml of herbal decoction of the same herbs used for the hawan in the morning once.

The anti-diabetic herbal mixture was obtained from DAHH. The Yagya was performed using mango sticks (600 gram) and ghee. The quantity of hawan samagri (herbal mixture) was 150 gram per Yagya. 40 grams of liquid ghee was mixed with hawan samagri before use. Yagya kund was of 9 inch made up of clay and bricks.

Briefly the Yagya procedure included included doing Shatkarma (Pavitrikaran, Achaman, Shikhavandan, Nasya, Prithvi Pujan), Chandan-dharan, Guruavahan, 24 oblations of the herbal mixture (hawan samagri) in the Yagya fire with reciting of Gayatri Mantra, followed by Pranayama for 15 minutes (50-51).

Patient participant diet was as in routine. Patients were specifically asked to follow their routine diet to minimize the influencing factors for the study.

Herbal mixture (hawan samagri) preparation

Since recent years, the Department of Ayurveda and Holistic Health (DAHH), Dev Sanskriti University, Haridwar, Uttarakhand has been endorsing Yagya Therapy (Yagyopathy), wherein diverse homegrown arrangements of Ayurvedic plant meds (hawan samagri) have been made in-house for different infections. With respect to the present investigation, special hawan samagri for diabetes treatment was obtained from DAHH which was prepared by them comprised of in excess of 20 herbs (12). All herbs in the study were well distinguished by taxonomists (52), and were non-harmful, and were of traditionally valuable in the management of diabetes, and the related issue (13-33). The herbal mixture prepared contained some of the herbs as following - Turmeric (Curcuma longa) (13-14), Nirmali (Strychnos potatorum) (15-16), Kalmegh (Andographis paniculata) (17-18), Saptrangi (Salacia oblonga) (19), Giloy (Tinospora cordipholia) (20), Khas (Chrysopogon zizanioides) (21-22), Lajwanti (Mimosa pudica) (23), Shilajit (Asphaltum) (24,25), Koonth Kadvi (Lawsonia inermis)(26-27), Kutaj (Hollarhena antidysenterica) (28-29), Kutki (Picrorhiza kurrooa)(30-31), Methi daana (Trigonella foenum-graecum) (32-33), etc.

Results

10 diabetic patients (5 males and 5 females) on allopathic medicine for past more than 1 year participated in the study. They were given 13 days of Yagya Thrapy twice a day and their pre and post blood level of fasting glucose, Post Prandial (PP) glucose, and HbA1C were measured (Table 1).

All of them (except patient no 4) had higher above than normal range fasting glucose level i.e. above 100mg/dl before the start of therapy. In addition, HbA1C value for all the patients were also higher than 6.5 mmol/mol, which is above normal range and indicator of diabetes.

Pre data of all the patients show that they are suffering from diabetes while post data shows that Yagya Therapy plays an important role to reduce the glucose level to some extent in all patients. The post data was taken after two weeks (on the 14th day) of Yagya Therapy.

Patient 1-6 attended all the sessions while rest of the patients were irregular and had attended very less treatment sessions. Patient 7-8 had attended nearly 50% of the sessions and patient 9-10 were most irregular participants. Patient 7 were regular in attendance for first 7 days and then left to other city for the work. In summary, patient 7-10 had not shown any remarkable reduction in the sugar level value except patient 8, whose fasting (from 155 to 124 mg/dl), PP (from 484 to 203 mg/dl) and HbA1C (from 8.8 to 8.6) glucose level reduced after 14 sessions of the Yagya Therapy treatment.

The most interesting findings were among the regular patients who had attended almost all sessions. Among 6 Patient all of them showed reduction in the HbA1c value and for patient 1-4 it was remarkable HbA1c difference i.e. 0.4, 0.4, 0.3, 0.2 respectively. This indicated that the treatment had impressive results i.e. affecting 3 months glucose sugar average and producing reduction in them with just 26 sessions in 13 days. However, there was no observable major change in pre and post fasting glucose level and PP glucose level. Only Patient 1 and 5 had observable change in PP glucose level after the Yagya Therapy i.e. from 193 to 147 and from 219 to 154 mg/dl respectively.

Patient No	Gender	Before	After	Before	After	Before	After	Difference	Regularity in therapy	Attendance in 26 sessions
		Fasting level (mg/dl)		PP level (mg/dl)		HbA1C level (mmol/mol)				
1	F	116	98	193	147	10.2	9.8	0.4	Regular	24
2	F	151	148	211	203	9.9	9.5	0.4	Regular	26
3	M	227	161	303	298	9.7	9.4	0.3	Regular	24
4	F	82	86	193	189	8.4	8.2	0.2	Regular	26
5	M	114	103	219	154	6.8	6.7	0.1	Regular	25
6	F	127	122	294	282	8.1	8	0.1	Regular	26
7	M	109	112	181	186	9.1	9	0.1	Regular*	14
8	M	155	124	484	203	8.8	8.6	0.2	Irregular	14
9	M	171	167	NA	NA	10.4	10.3	0.1	Irregular	<10
10	F	178	166	229	232	9.3	9.2	0.1	Irregular	<10

Discussion

This study examined the plausibility of Yagya Therapy in the treatment of diabetes. The study showed that even very short treatment of 13 days of Yagya Therapy reduced level of HbA1c in all patients. The remarkable change in patients with initial high HbA1C level was observed with Yagya Therapy (Patient 1-3 in Table 1). In the study, the course of the allopathic treatment was unchanged and HbA1c measures 3 months average, hence, it could be concluded that the resulting change was attributed the supportive Yagya Therapy. Hence, the study supported the utility of Yagya Therapy in the management of the diabetic patients as supportive care and it demands further long term

studies as well as standalone evaluation as treatment.

Previously studies have shown that Tinospora cordifolia (Giloy) as an add on therapy reduced significantly HbA1c in diabetic patients (n=100) compared to patients group on only allopath medicine (20). Besides most of the herbs used in the study have been shown to have anti-diabetic properties (13-33) resulting a appropriate approach for treating diabetic patients through Yagya Therapy. In addition role and importance of herbal fumes generated through Yagya has been previously described very well (34-35).

The present study indicated Yagya therapy as a potential supportive and alternative solution in the management of diabetes. The increase in the time duration of the Yagya Therapy for more than 3-6 months may give the desired results for managing the diabetes.

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