



Efficacy of Vamana followed by Nyagrodadi Churna in the management of sthula madhumeha (NIDDM)

Meera KJ^{1*}, Pujar P Muralidhar²

1. Research Scholar, SDMC Ayurveda Hassan, India

2. Professor, SDMC Ayurveda Hassan, India

*Correspondence to:

Meera KJ,
Research Scholar, SDMC Ayurveda Hassan,
India,
Email ID: asdayur@rediffmail.com

Article History

Received: 14 July 2017

Reviewed by: 2 Reviewers

Accepted: 10 August 2017

Published: September-October 2017

Citation

Meera KJ, Pujar P Muralidhar. Efficacy of vamana followed by nyagrodadi churna in the management of sthula madhumeha (NIDDM). *Medical Science*, 2017, 21(87), 265-269

Publication License



This work is licensed under a Creative Commons Attribution 4.0 International License.

General Note



Article is recommended to print as color digital version in recycled paper.

ABSTRACT

The present study is designed to assess the efficacy of Vamana, one of the detoxification treatment procedures of Ayurveda followed by administration of oral herbal medicine in Sthula Madhumeha with special reference to Noninsulin dependent Diabetes Mellitus (NIDDM). The prevalence of the disease Diabetes Mellitus is increasing all over the world. Shodana (Detoxification

procedure) followed by shamana (Oral medication) is the treatment measure for Sthoola Madhumeha as explained in Ayurvedic text books. Thus the present study was undertaken to assess the effective management of NIDDM from classical ayurvedic point of view i.e., Vamana followed by Nyagrodadi Churna. The Screening of the patients between the age group of 30 to 50 years was done randomly and finally 30 patients who fulfilled all necessary criteria and gave a written consent for the clinical trial were registered for the study. The selected patients were assessed for both subjective and biochemical parameters before and after treatment schedule. The study showed significant reduction in blood sugar level ($P < 0.001$, ANOVA) after the treatment schedule.

Key words: Diabetes Mellitus Detoxification, Shamana, Oral medication

1. INTRODUCTION

Diabetes mellitus is a clinical syndrome which is defined as a disorder of metabolism of carbohydrate, protein and fat characterised by passing of sweet urine along with increased blood sugar level as a consequence of insulin deficiency and /or insulin resistance (Siddharth N Shah, 2008). Prevalence of Diabetes is rising day by day. An estimated 366 million people, corresponding to 8.13% of the world's adult population, lived with diabetes in 2011.

The number is expected to grow to 552 million by 2030, corresponding to 7.8% of the adult population with an estimated 90 million people living with diabetes, China has the world's largest diabetes population, followed by India with 61.3 million. Non-communicable diseases including diabetes account for 60% of all deaths worldwide. The largest age group currently affected by diabetes is between 40-59 years (Sarah Wildetal, 2004). A detailed explanation of disease Diabetes mellitus is available in ayurvedic text books in the name of the disease MADHUMEHA. Madhumeha is a disease in which patient passes urine like honey and the whole body becomes sweet so only the disease is named as Madhumeha (Vaghbhatacharyaetal, 1978).

The two broad classification of Diabetes are Type-1 and Type-2. Type-1 D M is the result of complete or near total insulin deficiency. Type-2 D M is a heterogeneous group of disorders characterized by variable degree of insulin resistance, impaired insulin secretion and increased hepatic glucose production and abnormal fat metabolism. Obesity, particularly visceral or central is very common. In the early stages glucose tolerance remains near normal as the pancreatic beta cells compensate by increasing insulin output. As insulin resistance and compensatory hyperinsulinemia progress, the Pancreatic islets in certain individuals are unable to sustain the hyperinsulinemic state leading to elevation of postprandial glucose, a further decline in insulin secretion and an increase in hepatic glucose production lead to fasting hyperglycemia, ultimately leading to beta cell failure. Distinct genetic and metabolic defects in insulin action and/or secretion give rise to the common phenotype of hyperglycemic in type 2 DM (Faucietal; Chakraborty monali, 2013).

There are two types of madhumeha. In first type the patient will be very lean, with low BMI (Agniveshaetal, 2008; vaghbhatacharyaetal, 2007; Sushrutacharyaetal, 2008) emaciated, very weak, irritable, usually the cause is hereditary and is named as Krishnamadhumehi. The second type is basically due to altered life style. Here the patient will be obese with a tendency for excessive eating and sedentary life style and is named as Sthoolamadhumehi, usually the cause is metabolic derangement, which can be correlated to type 2 Diabetes Mellitus (NIDDM). Previously the onset of the disease was noted at the age of 40 year and above, but now due to change in the lifestyle plenty of diabetic mellitus cases are noticing in still early age group only. Many times it will be an asymptomatic. The therapeutic approach in conventional medicine includes management by diet, exercise and administration of oral hypoglycemic drugs. Vamana, one of the detoxification procedures of Ayurveda followed by administration of oral medication is the treatment measure for Sthoolamadhumehi as explained in ayurvedic text book (Agniveshaetal, 2008; vaghbhatacharyaetal, 2007; Sushrutacharyaetal, 2008). Hence it was planned to conduct a clinical study to evaluate the efficacy of Vamana followed by Nyagrodaadichurna (Chakrapanidutta, 2002) in Sthulamadhumeha.

2. MATERIALS AND METHODS

The present study included patients, lab investigations and selected drug.

2.1. Criteria for selection

Screening of the patients between the age group of 30 to 50 years was done randomly and finally patients having classical signs and symptoms of NIDDM, of either Sex, with the primary diagnosis of NIDDM, with BMI above 30 and those who gave a written consent for the clinical trial were registered for the study. The demographic details of selected patients were shown in table 1.

Table 1
Demographic profile of 30 patients

Demographic character	Number of patients	Percentage
Age in years		
30-35	10	33%
36-40	03	10%
41-45	08	27%
46-50	09	30%
Gender		
Male	18	60%
Female	12	40%
Food habits		
Vegetarian	12	40%
Non-vegetarian	18	60%
Occupation		
Sedentary work	12	40%
Physical work	02	07%
Mental work	16	53%
Habitat		
Urban	23	77%
Rural	07	23%
Family history		
Present	24	80%
Absent	06	20%

2.2. Exclusive criteria

The patients of IDDM, Patients of secondary DM, and NIDDM Patients with BMI less than 30, NIDDM patients with severe blood glucose level (FBS-Above 220 mg /dl And PPBS-Above 280 mg/dl), NIDDM patients with complications like Nephropathy, Neuropathy etc. and NIDDM patients who are unfit for Vamana procedure are all excluded from the study.

2.3. Plan of study

All the selected patients were made to undergo first detoxification procedure, i.e. Vamanaand then Nyagrodadichurna was given as oral medication at a dose of 5 gms two times with 40 ml Triphalakashaya. The total study duration was 90 days.

2.4. Criteria for assessment

After completion of the treatment, the results were assessed by adopting following criteria: 1) Changes in the signs and symptoms of disease on the basis of the symptom score. 2) Before and after assessment of biochemical investigations which includes FBS, FUS, PPBS, PPUS, T.Cholesterol, Serum Triglyceride and Glycosylated haemoglobin.

3. OBSERVATIONS AND DISCUSSION

A majority of the patients in this study, i.e., 33 % belongs to the age group of 30-35 years. These findings prove the current observation of early onset of D M. A majority of patients i.e., 77% were living in urban areas. This data is similar with recent report (2000) that the prevalence is more in urban than in rural. 80% of the patients were having family history of DM, which shows that hereditary predisposition is equally important in DM. A majority of patients i.e. 60% were non vegetarians, which shows intake of heavy food is one of the major cause in the manifestation of the disease processes.

3.1. Effect of Therapies

Table-2 and Table 3 shows statistically highly significant relief in all the criteria. It is noticed that good percentage of relief is noticed in the criteria like Frequency of Urination, Quantity of Urine, Polyphagia, FUS, PPUS. Average reduction in percentage is noticed in the criteria like Polydipsia, excessive sweating, weakness, FBS, PPBS. But less percentage relief is noticed in BMI, Total cholesterol, Serum Triglycerides and HbA1c test.

Table 2

Subjective criteria

SL No	Subjective Criteria	Mean score		% of relief	S D	S E	T	P	Remarks
		BT	A T						
1	Frequency of Urination	2.33	1.10	53%	0.774	0.141	8.729	0.000	HS at 1%
2	Quantity of Urination	2.20	1.03	53%	0.647	0.118	9.866	0.000	HS at 1%
3	Polyphagia	2.00	1.03	48%	0.850	0.155	6.227	0.000	HS at 1%
4	Polydipsia	1.57	1.17	26%	0.723	0.132	3.026	0.005	HS at 1%
5	Increased Sweating	1.40	1.07	24%	0.606	0.111	3.010	0.005	HS at 1%
6	General weakness	1.600	1	38%	0.770	0.141	4.267	0.000	HS at 1%
7	Increased sleep	1.867	1.033	45%	0.699	0.128	6.530	0.000	HS at 1%

Table 3

Effect of Objective Criteria

SL No	Objective Criteria	Mean Score		% of relief	S D	S E	T	P	Remarks
		BT	A T						
1	B M I	31.76	30.753	3%	0.894	0.163	6.191	0.000	HS at 1%
2	F U S	0.417	0.000	100%	0.396	0.072	5.767	0.000	HS at 1%
3	P P U S	1.117	0.167	85%	0.422	0.077	12.318	0.000	HS at 1%
4	F B S	160.267	112.767	30%	28.818	5.261	9.028	0.000	HS at 1%
5	P P B S	219.227	161.433	26%	27.615	5.042	11.463	0.000	HS at 1%
6	T. Cholesterol	208.533	187.400	10%	24.610	4.493	4.704	0.000	HS at 1%
7	S. Triglycerides	173.153	151.100	13%	25.721	4.696	4.696	0.000	HS at 1%
8	HbA1C	7.817	7.240	7%	0.653	0.119	4.835	0.000	HS at 1%

4. CONCLUSION

In this study it was observed that Vamana followed by Nyagrodaadichoorna had significant improvement in all the parameters, thus helping in maintain blood sugar level and also there is no adverse effect of the therapy noticed. Thus it can be concluded as it is an effective and safe treatment method in maintaining blood sugar level and also the maintaining general wellbeing of the patient.

REFERENCE

1. Agnivesha; Charakacharya; Chakrapanidutta; Pramehachikithsitam; CharakaSamhita with Ayurveda deepika commentary; Chikithsasthna 6th chapter; Vaidya JadavajiTrikamji Acharya, editor; Choukhamba Surabharati Prakashana, 2008, p.444-450
2. Chakraborty Monali. An Insight into the Aetiology of Tropical Chronic Pancreatitis and Fibrocalculous Pancreatic Diabetes. *International Research Journal of Medical Sciences*, 1(2), 2013, P-5-14

3. Chakrapanidutta; pramehachikithsa; Chakradutta; 35th chapter; P V Sharma, editors. Chaukhanbha publishers, Varanasi, India; 2002, P. 303
4. Fauci, Braunwaldetal, Harrison's internal medicine, 17th edition, Volume 2, P-2275-2290
5. Sarah Wild, GojkaRoglic, Anders Green et al., Global prevalence of diabetes: 1050, Diabetes care, Volume 27, Number 5, 2004 <http://www.who.int/diabetes/facts/en/diacare0504.pdf>;
6. Siddharth N Shah, API textbook of medicine; Diabetology; 18th Chapter, 8th ed.; 2008; p.1042-1081
7. Sushrutacharya; Dulhanacharya; Pramehachikithsitam; Sushrutasamhita with Nibandhasangraha commentary; chikithsasthana 11th chapter; Narayan Ram Acharya, editor; Choukhamba Surabharati Prakashana, 2008, P.451-454
8. Vagbhatacharya; Arunadatta; Hemadri; Pramehachikithsitam; Astangahridaya with Sarvangasundara and Ayurvedarasayana commentary; Chikithsasthana 12th chapter; Pt. Hari Sadasiva Shastri Paradakara Bhashagacharya, editor; Choukhamba Surabharati Prakashana, 2007 . P.678-681
9. Vagbhatacharya, Astangahridaya, Nidanasthana, 10th Chapter, 18thsloka,. Yadunandana Upadyaya, editor. Varanasi: Choukhamba Sanskrit sansthan; 8th edition, 1978, P-255