

EVALUATION OF THE EFFICACY OF 'MADHUMEHARI CHURNA' WITH 'TRIPHALADI KWATHA' IN THE MANAGEMENT OF MADHUMEHA W.S.R. TO DIABETES MELLITUS TYPE-2 (NIDDM)

¹Bhanu Tank, ²C.B Sharma, ³Udai Raj Saroj

¹Associate professor(pramch,u.p), ²Professor, ³Professor, Dept. of Kayachikitsa, National institute of Ayurveda, Jaipur.

Corresponding Author: drbhanutank@gmail.com

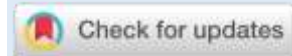
<https://doi.org/10.46607/iamj03p8032024>

(Published Online: March 2024)

Open Access

© International Ayurvedic Medical Journal, India 2024

Article Received: 08/02/2023 - Peer Reviewed: 05/03/2024 - Accepted for Publication: 20/03/2024.



ABSTRACT

Introduction: Diabetes Mellitus (DM) is commonly known as Madhumeha in Ayurveda. According to report of W.H.O., Diabetes is one of the largest global health emergencies of the 21st century. Incidence of DM is rising more rapidly in India. According to IDF SEA region, there were 69.1million cases of diabetes in India in 2015. So, effective treatment of diabetes is needed. Method: The present research work has been undertaken, to evaluate the efficacy of 'Madhumehari churna' with 'Triphaladi kwatha' in the management of Madhumeha W.S.R. to D.M. Type-2. The study was conducted on 15 clinically and pathologically diagnosed patients of Madhumeha [DM type 2]. The selection of patients was made from OPD/IPD of Arogyashala, National Institute of Ayurveda and SSBH, Jaipur (Raj.). The selected patients were given 15 registered patients of DM Type-2 (NIDDM) were administered Madhumehari churna and Triphaladi Kwatha for 30 days After evaluating therapy it was observed that the 'Madhumehari Churna' with 'Triphaladi Kwatha' showed symptomatic relief in the patients of Madhumeha.

Key words: *Madhumeha*, Diabetes Mellitus, Madhumehari Churna, Triphaladi Kwatha

INTRODUCTION

Ayurveda is the art and science of life; it has gifted us by ancestors. Diabetes mellitus is often referred as a "Silent killer" because of its increasing prevalence in society. According to report of W.H.O., Diabetes is one of the largest global health emergencies of the 21st century. Worldwide¹ Some 415 million adults' people who are estimated to currently have diabetes, there are 318 million adults with impaired glucose tolerance, which puts them at high risk of developing the disease in the future. Although the prevalence of both type I & type II Diabetes is increasing worldwide, the prevalence of type -II DM is expected to rise more rapidly in future because of increasing obesity and sedentary lifestyle.

Need and significance of Present Research work:

Inspite of tremendous advancement of modern system of medicine i.e. oral hypoglycemic agent and insulin till date, an ideal drug which can cure diabetes is not yet available and still scientists are struggling to search an effective and harmless therapy. So, effort has been made here to search the safe and effective medicine, without any adverse effects. In Ayurveda 'Madhumeha' is considered as disease of vitiated Vata and Kapha Dosha and Agnimandya is present in Madhumeha. Acharya Charaka² has used term "bahudrava shleshma tatha avabadha meda" in the description of Prameha and Dushyas involved in it are mainly Meda, Mansa, Kleda, Shukra, Vasa, Majja etc. are all Kapha vargiya. So ideally in Shamana Chikitsa such drugs should be used in its treatment which possess, Agnideepana, Rasayana properties, hypoglycemic effect, and should pacify the effects of aggravated Dosha. The trial drugs Madhumehari churna, and Triphaladi Kwatha³ having mainly the above said properties. Hence, they were selected for the present clinical trial. The ingredients of these drugs are easy to administer in patients and cost effective.

AIMS AND OBJECTIVES:

EVALUATION OF THE EFFICACY OF 'MADHUMEHARI CHURNA' WITH 'TRIPHALADI KWATHA' IN THE MANAGE-

MENT OF MADHUMEHA W.S.R. TO DIABETES MELLITUS TYPE-2 (NIDDM)

Material and methods:

1) Selection of Cases-

The study was conducted on 15 clinically and pathologically diagnosed patients of **Madhumeha** W.S.R. to DM Type-2 (NIDDM). Selection of patients was made from OPD/IPD of *Arogyashala*, National Institute of Ayurveda and SSBH, Jaipur (Raj.).

2) Inclusion Criteria –

- Diagnosed cases of DM Type-2 (NIDDM).
- Patients having hyperglycemia confirmed by Laboratory Investigation i.e. FBS \geq 126 mg/dl or PPBS \geq 200mg/dl.
- Age group between 30-60 years of either sex.
- Patient willing to signature the consent form for the clinical trial.

3) Exclusion Criteria –

Following patients excluded from clinical trial: -

- Patients having DM Type - 1 [IDDM]
- Age below 30 and above 60 years.
- Patient of DM type 2, who are on Insulin therapy.
- DM associated with any type of Malignancy.
- DM with complications.
- Diabetes insipidus.
- Patient having any serious illness.
- Drug induced DM.
- FBS more than 160 mg/dl.
- PPBS more than 260 mg/dl (after two hour).
- DM with coronary artery diseases.
- *Sahaja Pramehi*.
- Patient having of chronicity of *Madhumeha* DM Type-2 more than five years.
- Pregnant women.

4) **SELECTION OF DRUGS:** Triphaladi kwatha and *Madhumehari churna*, was selected from (*yog ratnakar*) *prameha chikitsa* and Formulary of Ayurvedic medicines part-1 NIA Jaipur respectively. Both drugs were prepared in NIA pharmacy as per classical instructions.

5) Mode of Administration of Drugs:

A. **Triphaladi Kwatha:** 50 ml Kwatha once a day in an empty stomach (Morning) for 30 days.

B. **Madhumehari Churna:** 5 gm churna twice a day before meal (half an hour) for 30 days with Lukewarm water

7. Parameters of evaluation-

For clinical evaluation the criteria can be divided in to two types: -

- Subjective Assessment.
 - Objective Assessment (Laboratory Investigation).
- A. **Subjective assessment-** All the patients registered for clinical trial were asked for any changes in their clinical manifestations.

Specially the symptom of *madhumeha* (DM) which was looked in to includes^{4,5,6}.

- *Prabhoot Mutrala* (Polyuria)
- *Kshudhadhikya* (Increase appetite)
- *Trishnadhikya* (Increase thirst)
- *Avila Mutrala* (Turbidity in urine)
- *Sharira Gaurava* (Heaviness in body)
- *Vibandha* (Constipation)
- *Hasta Pada Shula* (Pain in hand & legs)
- *Mukhamadhurya* (sweetness in mouth)
- *Alasya* (laziness)
- *Panduvarna Mutra* (yellowish white urine)
- *Mukhashosha* (Dryness of Mouth)
- *Klama* (Early Fatigue)
- *Kar-pada-tala-daha* (Burning sensation of hands

and feet)

B. Objective Assessment (Laboratory Investigation):

- Blood Sugar level:
Fasting (FBS).
Post Prandial (PPBS).
- Glycosylated Hb (HbA_{1c}).
- Hb %, TLC and ESR
- RFT. (Serum Creatinine, Blood Urea)
- LFT. (SGOT, SGPT)
- Urine Routine and Microscopy.

OBSERVATIONS –

- Maximum number of the patients is in between Age group 51-60 years (43.33.00%), Male sex (67.00%), Hindu Religion (80.00%), Govt. Employees (30.00%) married (93.33 %), secondary educational status (43.00%), middle socio-economic status (53.33%). **Maximum number of the patient's i.e.** (63.33%) **were on vegetarian** diet, (27.00%) were house wives .(63.33%) of patients were having *samyaka nidra*, Maximum patients were addicted with tea (47.00%) , Most of the patients (40%) were having *Vata-kaphaja Sharirika Prakriti*, (46.66%)of patients were having *Rajasika Manasika Prakriti*, (46.66%), patients were *Meda Sara* and *Mansa sara* each(33.33%), (70%) patients were of *Madhyama Samahanana*, (50%) were of *Madhyama Satva*., *Madhyama Ahara Abhyavaharana Shakti* was found in (63%) patients.

- The results of the therapeutic trial:

Table No. 1: showing Effect of therapeutic trial on clinical symptomatology in 15 patients of *Madhumeha* (D.M. Type II).

Symptom	Mean		Mean Diff.	% Relief	S. D±	S. E±	P Value	Sig.
	BT	AT						
<i>Prabhoot Mutrata</i>	2.93	1.06	1.86	63.65	0.63	0.16	<0.001	HS
<i>Kshudhadikya</i>	0.53	0.06	0.46	86.79	0.99	0.25	>0.05	NS
<i>Trishnadhikya</i>	1.66	0.53	1.13	68.07	0.99	0.25	<0.001	HS
<i>Avila Mutrata</i>	1.20	0.13	1.06	83.33	0.59	0.15	<0.001	HS
<i>Sharira Gaurava</i>	0.46	0.06	0.40	86.95	0.63	0.16	>0.05	NS
<i>Vibandha</i>	0.86	0.46	0.40	46.51	0.57	0.13	<0.05	S
<i>Hasta Pada Shula</i>	0.86	0.53	0.33	38.37	0.48	0.12	>0.05	NS
<i>Mukha Madhurya</i>	0.53	0.33	0.20	37.73	0.41	0.10	>0.05	NS
<i>Alasya</i>	1.2	0.40	0.80	66.66	0.86	0.22	<0.001	HS
<i>Pandurvarna mutra</i>	0.53	0.13	0.40	75.47	0.50	0.1	<0.05	S
<i>Mukha shosha</i>	0.73	0.20	0.53	72.60	0.51	0.13	<0.001	HS
<i>Klama</i>	1.50	0.33	1.20	80.00	1.01	0.26	<0.001	HS
<i>Kara-pada-tala-daha</i>	0.46	0.06	0.40	86.95	0.73	0.19	<0.05	NS

Table No.2 showing Effect of therapeutic trial on lab parameters in 15 patients of *Madhumeha* (D.M. Type II). based on intra group comparison (pair t-test)⁸:

TEST	Mean		Mean Diff.	% Relief	S. D±	S. E±	P - Value	Paired t-test	Sig
	BT	AT							
Hb%	11.84	13.62	-1.78	-15.03	1.04	0.27	P<0.001	6.57	HS
TLC/ cumm	6953	5346	1006	14.47	1001	258.6	P<0.01	3.89	HS
ESR (mm/h)	11.13	10.00	1.13	10.15	2.58	0.66	P>0.05	1.69	NS
FBS (mg/dl)	150.13	114.47	35.66	23.75	24.98	6.40	P<0.001	5.29	HS
PPBS (mg/dl)	196.10	141.10	55.00	28.04	27.95	8.83	P<0.001	6.22	HS
Blood Urea	32.80	28.26	4.53	13.81	9.57	2.47	P<0.05	1.83	NS
Sr. Creatinine	1.08	0.97	0.11	10.18	0.16	0.04	P<0.05	2.65	S
SGOT	38.06	28.4	9.66	27.55	8.32	2.14	P<0.001	4.49	HS
SGPT	36.60	25.80	6.80	18.57	7.36	1.90	P<0.001	3.57	HS
GHb%	6.24	5.30	0.94	15.06	0.55	0.13	P<0.001	6.84	HS

DISCUSSION

In *Ayurveda*, the action of drugs is determined on Pharmacodynamic factors as *Rasa, Guna, Veerya* and *Vipaka* along with certain specific properties called

Prabhava (Karma), which cannot be explained on these principles inherited by the drugs. In pathogenesis of *Madhumeha*, *Vata Dosha* is predominant factor. For controlling of *Vata Dosha*, the contents of *Triphaladi Kwatha* and *Madhumehari churna* have

properties⁸ of *Rasayana*, *Yogvahi* and hypoglycemic effects. *Triphaladi Kwatha* contents have of *Laghu*, *Ruksha Guna* which balanced with *Snigdha*, *Guru Guna*. *Laghu Guna* is *Kaphaghna*, promotes *Vata Dosha* and depletes the quantum of *Dhatus* in the body. *Ruksha Guna* also promotes *Vata Dosha* and pacifies *Kapha* and *Meda Dhatus*. Total Drug effects by which the trial drugs is effective in *Madhumeha* is because of its various qualities like *Ojovardhaka*, *Rasayana* which pacify the *Vata Dosha* and minimize the chances of the complication of DM whereas the other properties of the trial drug like *Kashaya-Tikta*⁹ *Rasa Katu Vipaka* may act synergistically to produce beneficial effects on the disease by virtue of its *Ojovardhaka*, *Rasayana*, *Tridoshashamaka Doshakarma* and are *Grahi*, *Deepana* and *Amapachana* as well as, *Madhumehahar* effects. These effects may be helpful in *Samprapti Vighatana* of *Madhumeha*.

CONCLUSION

The study shows that *Triphaladi Kwatha* and *Madhumehari Churna* are effective in the management of *Madhumeha*. Both the drugs reduce majority of the symptoms of *Madhumeha* (Diabetes Mellitus) that include *Prabhoota Mutrata* (Polyuria), *Kshudadhikya* (Polyphagia) *Pipasadhikya* (Polydipsia), *Avila Mutrata Hasta-pada Shool* (Pain in hands & legs), *klama* (Fatigue), and *Pandurvarna Mutrata*. These improvements in symptoms are brought about by *Samprapti Vighatana* of the disease. It proves that the trial drugs possess hypoglycemic effect.

- The trial drugs were effective in reducing Fasting Blood Sugar, Post Prandial Blood Sugar and GHb.
- Therapy was well tolerated by all the patients and no toxic or unwanted effects were noticed in any patient.

- It can be concluded that the medicines *Triphaladi Kwatha* and *Madhumehari Churna* in current study show improvement in symptoms of *Madhumeha* (Diabetes Mellitus Type II) and can be used safely in patients of *Madhumeha* (Diabetes Mellitus Type II).
- Thus, it is clear from the current research project that *Madhumehari Churna* and *Triphaladi Kwatha* and may be used as an effective *Madhumehahara* drug.

REFERENCES

1. International Diabetes Federation, Atlas, seventh edition 2015 page no 12.
2. Agnivesha, Charaka Samhita edited by Pt. Kashinath Shastri & Dr. Gorakha Nath Chaturvedi, Nidana sthana chp 4/6, Chaukhamba Bharati Academy, Varanasi, reprint 2009 pg,
3. 632Yoga Ratnakara with Vidyotani Hindi commentary by Vaidya Laxmipati Shastri.
4. Madhava, Madhava Nidana, 33/6, Commentary by Sri Vijayarakshita and Srikanthadatta, 31st edition. Varanasi: Chaukhambha Sanskrit Sansthana; 2002
5. Sushruta, Sushruta Samohita, Nidana Sthana, 6/5, Commentary of Kaviraja Ambikadatta Sastri (Part I and II), 14th ed. Varanasi: Chaukhamba Sanskrit Sansthana; 2001.
6. Agnivesha, Charaka, Dridhabala, Charaka Samhita, Nidana Sthana, 4/47, 51 edited by Vaidya Jadavaji Trikamji Acharya. 5th ed. Varanasi: Chaukhamba Sanskrit Sansthan; 2001
7. Mahajan BK. Methods in Biostatistics for medical students and research workers. 7th ed. New Delhi: J P Brothers medical publishers limited; 2010. p.134.
8. Dravya Guna Vigyana II by Acharya P.V. Sharma, 2nd Edition, 1998, Chaukhambha Bharti Academy, Varanasi.
9. Database on Medicinal Plants Used in Ayurveda, Published by the central council of Research in Ayurveda & Siddha, New Delhi, Volume 3, pg no.314.

Source of Support: Nil

Conflict of Interest: None Declared

How to cite this URL: Bhanu Tank et al: Evaluation of the efficacy of 'madhumehari churna' with 'triphaladi kwatha' in the management of madhumeha w.s.r. to diabetes mellitus type-2 (niddm). International Ayurvedic Medical Journal {online} 2024 {cited March 2024} Available from: http://www.iamj.in/posts/images/upload/218_222.pdf