

KHADIRA KRAMUKA KASHAYA PRAYOGA IN MADHUMEHA W.S.R. TO TYPE II DIABETES MELLITUS-A CLINICAL STUDY

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ABSTRACT

Madhumeha is a term considered for the condition *VatajaPrameha*, and is characterised by *Prabhuta Avila Mutrata*. *Madhumeha* is one of the 'Mahagada' and involves maximum number of *Srotas* and vitiates all most all the *Dhatu*s and the *Ojus*. It can be correlated with Type II Diabetes Mellitus which is a metabolic disorder characterised by hyperglycaemia with or without Glycosuria resulting from an absolute deficiency or resistance of insulin. India has been projected by W.H.O as the country with the fastest growing population of Diabetic patients. Recent studies have estimated that in the year 2000, 171 million people had Diabetes and are expected to be double by 2030. So in an attempt to combat this disease condition effectively, the formulation *Khadira Kramuka Kashaya* told by *Sushrutacharya* in the context of *Kshoudrameha*s selected for the present study. The present study is a clinical study with pre - test and post - test design where in 20 patients of either sex diagnosed as *Madhumeha* were taken and given *khadirakramukakashaya* for 45 days. The statistical results show good in most of the subjective and objective symptoms.

Keywords: *Madhumeha*, *Khadirakramukakashaya*, *Kshoudrameha*,

INTRODUCTION

The present era is full of chaos, stress & strain due to life style modifications, change in dietary habits, urbanization and industrialization. This has led in the upsurge of many diseases and one of them is *Madhumeha*. Though *Madhumeha* is a disease known since ancient times to the mankind, its upsurge is quiet alarming. Our classics have termed *Madhumeha* as *Asadya* keeping in terms of *Vataja Pramehabut*, with appropriate *Oushadha*, *Pathya* and *Vyayama* for the same both the short-term and long-term complications can be effectively managed and prevented by breaking the vicious cycle of pathology and thereby enhance the Quality Of Life of the patient. DM is one of the most common diseases of the modern world. It is a

disorder which is sparing neither the developing nor the developed nations. Irregular food habits, lack of exercise, stress and strain is some of the causative factors that make an individual more prone to develop diabetes at an early age. India has been projected by the W.H.O. as the country with the fastest growing population of Diabetics. Recent studies have estimated that in the year 2000, 171 million people had Diabetes and are expected to be double by 2030.¹

Ayurveda proposes number of Herbal and Herbo-mineral formulations for the management of *Madhumeha*. Here an attempt has been made to provide a better management of this condition, *Madhumeha*. The formulation *KhadiraKramu-*

kaKashaya mentioned in *SushrutaSamhita*² with its ingredients *SwethaKhadira*, *RakthaKhadira* and *Kramuka* which have *TiktaKashaya Rasa KatuVipaka* and *Mehagnaproperty*. The diagnosis of the disease *Madhumeha* was confirmed by the presence of signs and symptoms described in classics along with the laboratory investigations like blood sugar levels.

AIMS AND OBJECTIVES: The utility of *KhadiraKramukaKashaya* in *Madhumeha*

MATERIALS AND METHODES

Study design: Single arm open labelled clinical study

Inclusion criteria:

- Patients presenting with *lakshanas* of *Madhumeha*.
- Patients of either sex aged between 30-65yrs.
- Blood sugar – Fasting >110mg/dl or PPBS >180mg/dl

Exclusion Criteria

- Age below 30 and above 65 years
- Blood sugar-Fasting=<110 mg/dl or ppbs=< 180mg/dl
- Patients on any immunosuppressant drugs or corticosteroidal therapy.
- Pregnant woman.
- Any other systemic disorders interfering with the course of the treatment.

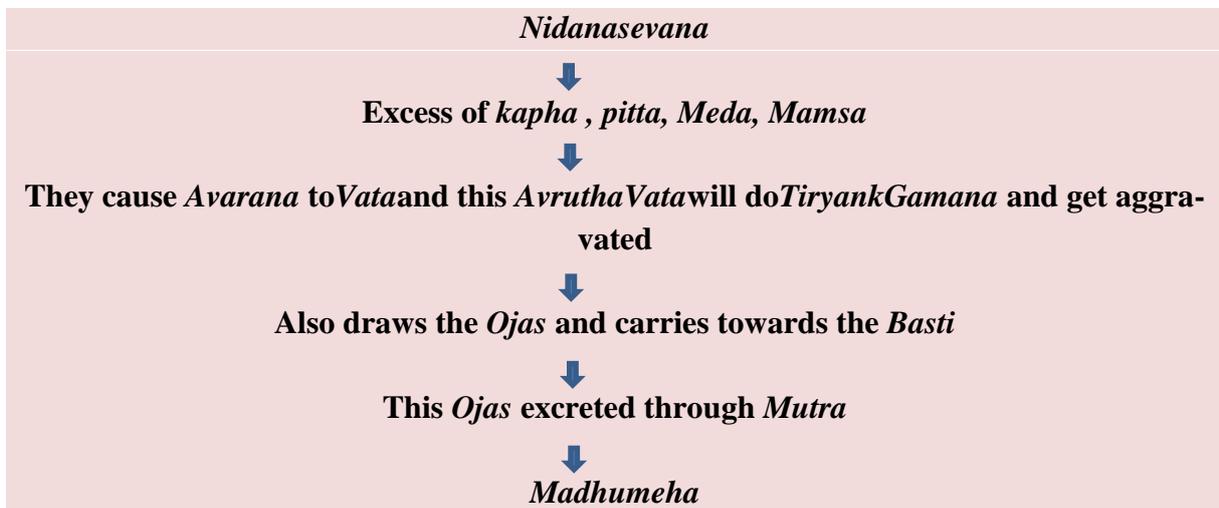
Intervention All 20 patients from the OPD of SKAMCH & RC Bangalore were selected and administered with freshly prepared 48ml *KhadiraKramukakashaya* before food twice daily for 45 days continuously.

Assessment: Assessment of the study was done based on subjective and objective parameters on 15th, 30th and 45th day of the study.

Observations: Observations are summarised in table number 01

Results: Results are summarised in table number 04

SAMPRAPTHI



DISCUSSION

Madhumeha is explained as one among the *VatajaPrameha* and characterized by *Madhuryata* of both *Mutra* and *Sharira*. The disease *Madhumeha* explained in *Ayurveda* is similar to Diabetes mellitus (DM) which refers to a group of common metabolic disorders having hyperglycaemia. Though the disease is *Tri-*

doshakopanimittaja, in *Madhumeha*, mainly *Vata* and *Kapha* are predominant. *Vata* may be provoked directly by its etiological factors, which leads to *Dhatukshaya* or *Avarana* by *Kapha* & *Pitta* to *Vata*. Here the main *Dushyas* are *Meda* & *Kleda* and primarily *Medhovahasrotodushti* takes place. In the pathogenesis of the *AvaranajanyaMadhumeha*, the *Kapha* and *Pitta* are the main *Dosha*,

whereas the most important *Dushyas* are *Mamsa*, *Meda* and *Kleda*. So, in its management, drugs have to be selected which can act on increased *AbadhaMeda* and *Kleda*. The drugs also seem to have hypoglycaemic effect. So, the *KhadiraKramukaKashaya* mentioned specially for the management of *Madhumeha* (*Kshoudrameha*) is selected here.

PROBABLE MODE OF ACTION

In the pathogenesis of the *AvaranajanyaMadhumeha*, the *Kapha* and *Pitta* are the main *Dosha*, whereas the most important *Dushyas* are *Mamsa*, *Meda* and *Kleda*. So, in its management, drugs have to be selected which can act on increased *AbadhaMeda* and *Kleda*. The drugs also seem to have hypoglycaemic effect. So, the *KhadiraKramukaKashaya* mentioned specially for the treatment of *Madhumeha* (*Kshoudrameha*) was selected here. Here the drugs are having *Pramehaghna* properties, mentioned in classics. They also have *Kaphahara*, *Pittahara*, properties, hence

helpful in the *SampraptiVighatana* of the disease. *Tikta*, *Kashaya Rasa* helps in *Sthireekarana* of *Dhatu*s and also does *KledaUpashoshana*. *Kashaya Rasa* is helpful in *ShareeaKledaHarana*. *Laghu*, *RookshaGuna* produces *Rookshana* and *Shoshana* effect and they are having opposite qualities to that of *Kapha* and *Medas* which is the main entity of the Pathogenesis of *Prameha*. Most of the drugs are having *Mutrasangrahaniya* action also helps in *SamprapthiVighatana* of the disease.

CONCLUSION

Madhumeha is term considered for the condition *VatajaPrameha*, and is characterised by *Prabhuta Avila Mutrata*. *Khadirakramukakashaya* found to be effective in reducing the symptoms of *madhumeha* within a span of 45 days of treatment schedule.

OBSERVATIONS

Table No. 01 Showing the Observations:

	Parameter	Number	Percentage
Sex	Males	11	55
	Females	9	45
Marital Status	Married	19	95
	Unmarried	1	5
Age	26-35 yrs	1	5
	36-45 yrs	4	20
	46-55 yrs	8	40
	56-65yrs	7	35
Chronicity	Newly Diagnosed	1	5
	<1 Year	3	15
	1-5 Years	7	35
	>5 Years	9	45
Nidana	<i>Vishamashana</i>	10	100
	<i>AmlaKatu Rasa</i>	10	100
	<i>Atyambupana</i>	8	80
Lakshana	<i>Bahuashi</i>	20	100
	<i>Shayyasanasheela</i>	12	60
	<i>Prabhutamutrata</i>	13	65

	<i>Mutramadhuryata</i>	7	35
	<i>Kshudha</i>	9	45
	<i>Karapadadaha</i>	11	55
	FBS	16	16
	PPBS	14	14

Table No: 02 Shows Rasapanchakas Khadira Kramuka Kashaya Choornapreparation

<i>Dravya</i> Latin Name and Family	<i>Rasa</i>	<i>Guna</i>	<i>Veerya</i>	<i>Vi-paka</i>	<i>Dosha Karma</i>	<i>Karma</i>
<i>SwetaKhadira / Kadara</i> Acacia suma (Legumino-sae)	<i>Tikta, Kashaya</i>	<i>Laghu, Ruksha</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kapha Pitta Shamaka</i>	<i>MutraSangrahaniya, MedodhatuShoshana</i>
<i>Kramuka</i> Areca catechu (Araceae)	<i>KashayaMadhura</i>	<i>Guru Ruksha Vikasi</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kapha Pitta Hara</i>	<i>Mutra, Sangrahaniya, Kle-danashana</i>

Table No 03 Showing the Assessment Scores:

Symptom	Normal (0)	Mild	Moderate	Severe
<i>Bahuashi</i>	1-2 meals/day	Slightly increased	5-6 meals / day	>7 meals/day
<i>Shay-yanasheela</i>	No laziness Doing work satisfac-	Likes to stand	Likes to sit than stand	Likes to lying down than sit
<i>Prabhutamutrata</i>	3-4 times micturition only in day	5-6 times/day	7-10times/ day 3-4 times/night	11-12 times/day 5times/night
<i>Mutramadhuryata</i>	Absence of glucose in urine	0.5% glucose in urine	1- 1.5% glucose in urine	2% glucose in urine
<i>Kshuadha</i>	Satiety achieved with less amount of	Late satiety, can control hunger	Very late and less satiety of food	No satiety, with nibbling
<i>Karapadadaha</i>	No daha	Occasional Daha	Moderate daha which will not hamper daily ac-	Continous and severe daha
FBS	70-120	121-170	171-220	>220
PPBS	121-180	181-230	231-280	>280

Table 04: Showing the Results

Mean Score	T
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Parameter	BT	AT ₁	AT ₂	AT ₃	Value	P Value	Remarks
<i>Bahuashi</i>	1.75±0.79	1.25±0.64	1.1±0.45	0.65±0.49	6.24	<0.001	HS
<i>Shay-yasanasheela</i>	1±0.97	0.75±0.79	0.55±0.604	0.35±0.59	3.11	<0.01	S
<i>Prabhuta-mutrata</i>	0.95±0.89	0.95±0.89	0.75±0.72	0.5±0.69	3.94	<0.001	HS
<i>Mutramadhury-ata</i>	0.65±0.93	0.65±0.88	0.55±0.83	0.6±0.88	0.29	>0.05	NS
<i>Kshudha</i>	0.65±0.81	0.5±0.69	0.25±0.44	0.1±0.31	2.602	<0.05	S
<i>Karapadadaha</i>	0.85±0.93	0.55±0.76	0.45±0.76	0.25±0.44	2.69	<0.05	S
FBS	1.25±0.96	1.1±1.02	0.95±0.88	0.8±0.89	2.43	<0.05	S
PPBS	1.3±1.13	1.4±1.05	1.1±0.91	1.15±0.93	0.58	>0.05	NS

BT: Before Treatment; 0th Day

AT₁: After Intervention; 15th Day

AT₂: After Intervention; 30th Day

AT₃: After completion of treatment; 45th Day

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