



Role of Argwadha Nitya Virechana in Madhumeha (Diabetes Mellitus-II): A Case Study

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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Case Report

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ABSTRACT

Diabetes Mellitus is now considered a pandemic. Especially in India, the number of patients increased at 14% prediabetic, becoming the capital of Diabetes. It is a clinical syndrome which is characterized by an increased level of blood sugar. In Ayurveda, the *madhumeha* is explained as a type of *prameha*. The kinds of *madhumeha* is of two. One is *dhatukshaya*, and other is *avaranjanya*. The *avaranjanya* type of *Madhumeha* is allowed to be treated with the *shodhana* process. In which *vamana* and *virechana* are effective.

Objective: The objective of this study was to study the efficacy of *Nitya Virechana* in the management of *madhumeha*.

Case report: A single case study of a 59 yrs old male patient who was already diagnosed with *madhumeha* before 21 days. Symptoms such as *pippasa*, *shramdaurbalya*, *Bahumutrata* were present; after investigation, he was advised for *Nitya Virechana*.

Result: Symptomatic assessment of the patient was carried out after treatment i.e. after *Nitya Virechana* and outcome was satisfactory, and the quality of life of patient was significantly improved.

Conclusion: *Nitya Virechana* brought about good relief in symptoms in patients with *Madhumeha* and controlling the blood sugar level.

Keywords: *Madhumeha; aragwadha kwatha; nitya virechana; diabetes mellitus.*

1. INTRODUCTION

Diabetes is the current global problem that affects the economic, physical and mental health of society. The prevalence of Diabetes in 2014 was 382 million, and it will be 592 million in 2035 by the International Diabetes Federation [1]. Diabetes Mellitus (DM II) is a metabolic disease in which the endocrine system has genetic susceptibility and the insulin-regulating tissue. It is caused due to environmental and dietetic factors resulting in insulin resistance and impaired Beta-cell functions [2]. Especially in India, the relationship between calorie intake and obesity increases rapidly due to high fat diet reduction in energy expenditure and urbanization. Due to excess stress and the lack of exercise is the main reason for obesity and Diabetes [3]. Changes in fat and protein metabolism are involved in Diabetes mellitus. Consequent changes in fat and protein metabolism lead to glucose metabolism impairment. Insulin is responsible for not only glucose metabolism but also fat metabolism. Insulin impairment leads to changes in fat, and glucose metabolism leads to Diabetes. Constant high glucose level changes gradually deteriorate insulin secretion [4].

In *Ayurveda* the *Madhumeha* is the subtype of *vatic Prameha*. It has two types one is *avarnajanya* and other is *Dhatukshayajanya*. According to Sushruta the *vyana Vayu* and *apanvayu* are play the significant role in the *prameha* pathogenesis. The *vyana vayu* is essential to the movement of every particle of the body and *apana vayu* for the excretion when the

watery content that is *kleda* increased it goes into the bladder and increased the urine frequency and the quantity [5]. The treatment of *Madhumeha* is *sanshodhana* in which *Vamana* and *Virechana* explained in the *Samhita*. The *doshas* excess in the *madhumeha*, so the *Shodhan* is expressed in the patient of *sthulpramehi* means the obese patient and *santarpan* in the lean patient [6]. Many *virechaka* drugs are explained in the *samhitas* like the *Snuhi*. This is the solid purgative. *Argwdaha* is choosen here for *nitya virechana*, which is explained in the *Prameha*. For this purpose patient daily gets the *virechak kwatha*, which the patients get 2-3vegas is allowed. In Chakrdatta, the *Chaturangulakwatha* is described in the treatment of *prameha* [7].

2. CASE PRESENTATION

Case- patient of age 59 yr old having, complain of *prabhutmutrata* (excess urination), *naktmutrata* (night time urination), *Vibandha* (constipation), *atinidra* (sleepiness), *swedadhikya* (excess sweating), *Trishna* (thirst), *Daurbalya* (weakness) from 1yr. With this complaint, patient come to the *panchkarma* OPD.

Medication history-patient on the anti hypertension medicine- Tab. Salmo 13.5 mg from 2yr, Past history- Lichen planus patient took steroids before 5 yr.

Family history- father, had a history of Diabetes. On this complaint the general examination did.

Table 1. General examination

Sr.no.	Examination	Findings
1.	Pulse	78/min
2.	Blood pressure	130/90mmhg
3.	Respiratory rate	18/min
4.	Temperature	97 ⁰ f.
5.	CVS	S ₁ S ₂ . normal
6.	R/S	Air entry normal both lungs
7.	CNS	Conscious, oriented
8.	P/A	Soft, no tenderness.
9.	Bladder	Normal urination
10.	Bowel	Constipated some time

Table 2. Ashtvidha parikshan

Nadim	Atakapa
Java	Sama(coated)
Mala	Vibandh hard stool 1time/day
Mutra	Excess at night 2-3 times
Sudha	Normal
Indra	Excess
Drunk	Normal
Akratic	Madhya
Spars	Ashutosh
Prakriti	Vat pitta

Table 3. Dashvidha parikha

Dushya	Meda, mutra, kleda,ras,
Desha	Jangle
Bala	Medium
Kala	Autumn
Agni	Medium
Prakriti	Vat-pitta
Vaya	Jara
Sattva	Medium
Satyama	Yogurt, pickle, milk, day sleep 1.30 hr daily.
Ahaar	Sweet, nonveg in week 2times specially fish,

Strotaspariksha

Purishvaha-constipation, 1-time hard stool.

Raktvaha-Hypertension. S1, S2 normal.

Medovaha- excess sweating.

Mutravaha- excess urination, night urination.

Hetu- In this patient, excess eating of sweet, jaggery, curd, nonveg especially fish and milk and day sleeping are found.

Samprapti- Excess intake of *Kapha*, *pittakar* diet and routine raised the *Mansa* and *meda* levels in the body. This increased level of *Kapha* and *meda* obstructed the channels *margavrodha*. *Avrutavayugati* disturbed the *oja*, and *vata* increased. *Vayusrukshaguna Madhur rasa* of *Ojas* changed into the *kashaya rasa*. This *ojas* mixes with the *mutravahasrotas*, and *prakupitvayu* expels the *Oja* like *Madhu*. *Avrittavata* then entered the *mutravahasrotas* and down towards the bladder, and frequently, honey-like urine was seen, and *Madhumeha* occurred [8].

By above finding patient advised for blood sugar and other investigations. The levels of blood sugar reported rose. It is confirmed according to ICD criteria as a diabetes mellitus-II. According to *Ayurveda* it established as the *Madhumeha*.

On the above observation, advised for random blood sugar, it was 179 mg/dl. A detailed investigation suggested the patient. And confirmed diagnosis as *Madhumeha*. And the patient is fit for them. The consent was taken from the patient, and he agreed to Ayurvedic treatment. Then he advised *Nitya Virechana* (Daily purgation) with *Argwadha kwatha*. 6gm of fine powder 960ml water boiled 1/8 part and become 120 ml *kwatha* prepared as per Sharadha Samhita kantha description. This *kwatha* advised for 21 days. It's action like the, but the *Vegas* is less as compared to classic. The observation of *Vegas* is routine till day five afterword's patient get the 2 or 3 *Vegas* after taking the *virechak kwatha*. *Samyakshuddhi lakshans* found in 6 the day of *nitya virechana* specially *laingiki shuddhi* found. *Samyaklakshnas* not found in *vaigiki and maniki*. Due to the *Nitya virechana* the quantity of the drug is less than the classical dose as per dose the *Vega* is less, but the *laingikishuddhi* like *shirolaghav*, *indriyashuddhi*, *udariaglav* observed.

The observation before and after treatment is as follows. The *Argwadhakwatha* shows the effective result in the investigation and on the subjective criteria.

Table 4. Assessment

Days	Colour of stool	Vega/day	Samyak/asamyak	Daurbalya
First 5 days	Normal	1	Samyak	No
16 days	Stool colour is yellowish, blackish	1-3	Samyak	Very less.

Table 5. Investigation

Objective parameter	Before treatment	After treatment
Hb	12.7 g/dl	11.6 gm/dl
Leucocyte count	72 00/chum	69 00/chum
RBC count	5.72 ml/cm	5.37 ml/cm
ESR	4 mm/hr	13 mm/hr
BSL-F	139 mg/dl	75 mg/dl
BSL-PP	164.5 mg/dl	100 mg/dl
HbA1c	6.40	5.82
Triglyceride	360 mg/dl	129.6 mg/dl
HDL	42.12 mg/dl	42 mg/dl
LDL	81.88 mg/dl	85 mg/dl
VLDL	72 mg/dl	25 mg/dl
Total Cholesterol	196 mg/dl	153 mg/dl
LDL/HDL	1.94	2
Total Chol/HDL	4.65	3.6
Urine turbidity	Clear	Clear

Table 6. Subjective parameter

Sr no.	Criteria	Before treatment	After treatment
1	<i>Prabhuta mutrata</i>	1	0
2	<i>Naktmutrata</i>	1	0
3	<i>Pipasa</i>	1	1
4	<i>Hastapadtaldaha</i>	0	0
5	<i>Vibandha</i>	1	0
6	<i>Shramsswasa</i>	1	0
7	<i>Pipalिकासancharti</i>	0	0
8	<i>Atinidra</i>	2	1
9	<i>Mukhmadurya</i>	1	0
10	<i>Daurbalya</i>	1	0
11	<i>Kshudhadhikya</i>	1	0
12	<i>Swedadhikya</i>	1	0

3. DISCUSSION

On the above observation there is a significant difference between before and after treatment. The blood sugar parameter is more important; it was found before treatment, the fasting was 139 mg/dl. and postprandial becomes 164mg/dl. After *Argwadhakwatha Nitya virechana* it becomes 75 mg/dl. And postprandial become 100 mg/dl. Significant change is considered to be in the HbA1c is before treatment, it was 6.40, and after treatment, it becomes 5.84. on the lipid profile, the *Argwadhakwatha Nitya virechana* shows significant effect especially on triglycerides before 360 mg/dl after 129mg/dl. VLDL before 72

mg/dl after it is 25 mg/dl and on total cholesterol 196 mg/dl after 153 mg/dl. The subjective parameter gives the satisfied result on *Prabhutmutrata*, *Naktmutrata*, *Daurbalya*, *Mukhmadhurya*, *Atinidraswedadhikya*, *Shramshwasa*, *Vibandha*. But no effect on *pipasa*. On this result, the *Argwadhakwatha* has the *sansran* property in which it removes the sticky *doshas* on the walls of the gut. By removing the lead and mala from the body, it becomes clean, and symptoms get relieved. The action of *Argwadhakwatha* is mild in action; it does not exhaust the body. The patient get 1-3 times lose bowel from 6days after taking *kwatha*, and after bowel, the patient advised the bland

food. During this procedure, patient get complete evacuation of bowel and freshness and blood pressure, and other examinations are normal. *Samayaksiddhi Lakshana* observed. On the other side, Diabetes is caused due to the excess use of the dairy product and day sleep which is already explains in the *samhita* which is observed in the patient [9]. *Kleda* is the symptom found in *Madhumeha*, in which mala get accumulated in the *koshtha* and night urination and frequency of urine occurred due to the *doshyas* in bladder [10]. *Medvahasrotas* is already disturbed, so the *durabaly*, *pipasa*, *shrumshaws* and *kshudhadhikya*, *swedadhikya* observed [11]. *Argwadha kwatha nitya virechana* removes the *doshas* and lowered the blood sugar level and symptoms [12],

3.1 Probable Mode of Action of Nitya Virechana

Nitya virechana is a concept and type of *Virechana*. It is mentioned for the treatment where bahudoshavastha condition [13, 14, 15] and madhumeha is a bahudosh disease. for the patient who has the vitiated *doshas* and is present in the *koshthas*. In *Madhumeha* the *doshas* are vitiated and present in *koshthas*. *Nityavirechana* can be the effective way to lowered the *doshas* quantity and breaking of pathophysiology. It is the treatment in which the body is cleaned through evacuating the watery content and *pitta*, *mala*, *kappa*, *vata*. In *Madhumeha* already the liquid content (*kleda*) is excess [16]. Administering *Argwadha kwatha* which is chosen for *nityavirechana* is responsible for removing *doshas* sedimented in *koshtha*. *Madhumeha* has the main symptom of *vibandha*; due to this, the *mala* accumulate in the *koshtha*, and 21 days *nitya virechana* removes the *doshas* in *madhumeha*. Abnormal *meda dhatu* is the founder of *Madhumeha*. Excessive *kleda* in *Madhumeha* observed and in *karma* removes the *kleda* means watery content from the body. It also acts on the vitiated *Meda dhatu* and as per *Vagbhata* draw the vitiated *doshas* by nearest route [17]. The patient found relief in the symptoms.

3.2 Probable Mode of Action of Argwadha

Argwadha is the laxative drug that causes the *doshas* to stick on the walls of *koshtha* to get washed out. It has the mild in action it is not exhausted to the patient, and the property of *Argwadha* is *adhobhaghar shodhan* as per *Samhita*. In the *Madhumeha*, the *doshas*

accumulated in the *koshtha* in the lower region, so it evacuated the *doshas*. As per modern the *Argwadha* is Antilipidic as well as the antidiabetic. In the patient of the above case, the patient shows the reduced blood sugar level and HbA1c and the lipid profile. By the *virechaka* property of *Argwadha*, the *doshas* wash out slowly, so the subjective criteria get the effective result. Few of the related studies were reviewed [18-20]. Khatib et.al. reflected on M-Health intervention for type II diabetes mellitus patients in Indian rural areas[21]. Belsare et.al. reported a study on prevalence of non-insulin dependent diabetes mellitus in different types of prakruti in Wardha city [22]. Gaidhane et.al. reviewed on perceptions of primary care doctors towards type 2 diabetes mellitus [23]. Shrivastava et.al. reported about assessment of Mean Platelet Volume (MPV) in subjects with type 2 diabetes mellitus [24].

4. CONCLUSION

Madhumeha is occurs due to the *Dhatukshay* or *Margavrodha*. On the above patient, *Margavrodha* observed. Due to the *kleda* and *Vibandha* mala get accumulated in the channel and *Madhumeha* symptoms are seen. In *Madhumeha*, *doshas* collected in the lower part of the body and is the nearest route to remove this *kleda* and obstructed stick *doshas* through the bowel. *Argwadhakwatha Nitya virechana* is a promising treatment seen in the Diabetes. The patients elevated blood sugar level gets down to normal, and the hyperlipidemia becomes normal. The main effect on the HbA1c down towards the normal. The subjective criteria of *Madhumeha* get relieved by this procedure. Obstruction of the channel due to *doshas* get washed out through bowel, and the symptoms are relieved. At the same patient, get relief in subjective and investigative criteria. Further studies on the same conducted on more patients are necessary for more illumination on the *Madhumeha*.

CONSENT

It is not applicable.

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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