



Case Study

A SINGLE CASE STUDY ON MADHUMEHA W.S.R. TO DIABETES MELLITUS TYPE II

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ABSTRACT

Over 90% of people were suffering from Diabetes Mellitus Type II, which is driven by socio-economic, demographic, environmental, and genetic factors. It is possible to reduce the impact of diabetes by taking preventive measures for type 2 diabetes and providing early diagnosis and proper care for diabetes specifically. These measures can help people healthy living without any complication. As said in Ayurveda, to lead a good life, health is priority through Ayurveda concepts it is necessary to maintain health and in case of a diseased state gaining back the normal health. It can be correlated with *Madhumeha* which is one of twenty types of *Prameha* in Ayurveda. A 39 years old male patient presented in OPD of Kesar Ayurveda & Health care, Dehradun, Uttarakhand on 25 Jan, 2026 with generalized weakness since 3-4 months. Examination, investigations and history lead to *Madhumeha*. The Panchakarma (Ayurvedic purification methods) claims the management of all the metabolic disorders hence this work may provide the specific evidence for the clinical studies as well. The proposed case is aimed to explore the particular mechanism and, to make this therapy more evidence based. Hence, it was hypothesized that Panchakarma-based intervention such as *Virechana Karma* (therapeutic purgation) may help in the management of the *Madhumeha*. The study was conducted to explore the effect of *Virechana Karma*. So patient was treated under the *Virechan karma* procedure.

INTRODUCTION

Diabetes is a disease that occurs when your blood glucose, also called blood sugar, is too high. Glucose is our body's main source of energy. our body can make glucose, but glucose also comes from the food we eat. Insulin, a hormone made by the pancreas helps glucose get into your cells to be used for energy. In case of diabetes, our body doesn't make enough insulin, or doesn't use insulin properly. Glucose then stays in your blood and doesn't reach our cells. Diabetes raises the risk for damage to the eyes, kidneys, nerves, and heart and also linked to some types of cancer.

Taking steps to manage diabetes may lower your risk of developing these diabetic health problems. Diabetes Mellitus is a clinical syndrome characterized by hyperglycemia due to absolute or relative deficiency of insulin. The prevalence of diabetes in India is currently reported to be around 13-15% and by the year 2025 it is estimated that approximately 55 million Indians will be diabetic. Diabetes is worldwide in distribution and the incidence of both types of primary diabetes i.e., IDDM and NIDDM is rising.^[1] As per WHO, it is a heterogeneous metabolic disorder characterized by common features of chronic hyperglycemia with disturbances of carbohydrates, fat and protein metabolism.^[2] In Ayurveda, diabetes mellitus significantly resembles with *Madhumeha* which is one of twenty types of *Pramehas* described in almost all Ayurvedic texts. All *Prameha* if not treated properly, may be converted to *Madhumeha* (DM) in due course of time^[3], a *Tridoshaja* condition with dominance of *Kapha* and *Dushya* involved in it are *Meda*, *Mamsa*, *Shonita*, *Vasa*, *Majja Kleda*, *Shukra*, *Lasika*, *Rasa* and *Oja*

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which are all *Kapha Vargiya*. Except *Asthi Dhatu*, all the *Dhatus* are affected by both etiopathological mechanisms of *Avarana* and *Dhatukshya*. The prodromal features of *Prameha* are *Prabhootha-mutrata*, *Avilamutrata*, *Karapadadaha*. Almost all the Ayurvedic classics describe a comprehensive concept of the pathogenesis of diabetes mellitus marked with lowering of immune system (*Ojas*), depletion of *Agni*, disturbance in fat (*Meda*) metabolism. So, the promotion of *Agni*, *Ojas* and correction of *Medas* seems to be the principle of cure approach in *Madhumeha*, along with modified diet and lifestyle i.e., *Pathya ahara* and *Vihara* with *Nidana parivarjana*.

Panchakarma is set of five procedures of internal detoxification of the body through the nearest possible route effectively treat the metabolic conditions like obesity, diabetes, thyroid, PCOD, etc., and also it promotes a sense of lightness, mental clarity, and reduced stress. Such purification allows the biological system to return to homeostasis and to rejuvenate and also facilitates the desired pharmacotherapeutic effects of the given medicine. Elimination of waste products is known as *Shodhana* (purification). These are performed in three phases: *Purva Karma* (preparatory), *Pradhaan Karma* (main procedure) and *Pashchaat Karma* (post-procedure). Many clinical studies carried out in Ayurvedic institutions have proved the clinical efficacy of these procedures in metabolic disorders like obesity, diabetes mellitus, but it has not yet received much attention in regards to its mechanism. In Ayurvedic literature, it has been clearly mentioned that these *Panchkarma* procedures can act as a curative, preventive and health promotive measure. *Madhumeha* is *Aadhya Roga*, i.e., occurring

due to over nourishment It is a purifying procedure that stimulates *Dhatvagni*, speeds up metabolism, and gets rid of metabolic waste primarily *Pitta* and *Kapha Dosh*. where in there is a role of *Srotorodha* (obstruction in the systemic channels), *Virechana Karma* (therapeutic purgation) is one of the treatment modalities for treating *Santarpanjanya Vikaras*.^[4] *Virechana Karma* clears the *Srotoavarodha* (obstruction), normalizes the *Agni* and brings balanced state of *Tridosha*.^[5,6]

Many studies are looking at therapy that might improve some of the adverse effects of obesity.^[7] The *Panchakarma* is indicated in the management of metabolic disorders; hence, this study may provide target specific evidence for the management of *Madhumeha*. This study aimed to explore the molecular mechanism of *Virechana* so that to generate evidence for its action.

Case Report

A 39 years old male patient presented in OPD of Kesar Ayurveda & Health care, Dehradun, Uttarakhand on 25 Jan, 2026, with generalized weakness since 3-4 months There is no history of dryness of mouth, bowel disturbances, joint pain, etc. He was diagnosed as *Madhumeha* (Type II DM) after investigations done. Patient was not on any oral hypoglycemic drugs. Apart from this he didn't suffer from other medical problems like hypertension, asthma, thyroid disorder etc. Patient had his own business. He belongs to a nuclear family and his mother was also suffering from *Madhumeha* (Type II DM).

Table 1: General Examination

General condition	Good
Height	5'6"
Weight	102
BMI	35
Skin/Hair	Normal
BP	160/100 mm of Hg
Temp.	96.7 F
Respiration rate	25/min
Tongue	Coated
Pallor/ Icterus/ Cyanosis/ Clubbing/ Edema	Absent

Table 2: Systemic Examination

CNS	Patient conscious oriented.
CVS	S1, S2 normal
P/A	Abdomen soft, tenderness absent, no organomegaly

Table 3: Ashtvidha pariksha

<i>Nadi</i>	74/min
<i>Mutra</i>	4-6 times a day and 1-2 times at night, pale yellow and odorless
<i>Mala</i>	1-2 times a day with <i>Nirama</i> signs
<i>Jihwa</i>	<i>Malavrit</i> (coated)
<i>Shabda</i>	<i>Gambheer</i>
<i>Sparsha</i>	<i>Anushna, Sheet</i>
<i>Drik</i>	Normal
<i>Aakriti</i>	<i>Madhyama</i>

Table 4: Dashavidha pariksha

<i>Prakriti</i>	<i>Vata kaphaj</i>
<i>Vikriti</i>	<i>Vata ↑ with Meda dhatu</i>
<i>Saara</i>	<i>Madhyama</i>
<i>Samhanan</i>	<i>Madhyama</i>
<i>Satmya</i>	<i>Madhyama</i>
<i>Satva</i>	<i>Madhyama</i>
<i>Pramana</i>	<i>Madhyama</i>
<i>Ahara Shakti</i>	<i>Madhyama</i>
<i>Vyayama</i>	<i>Madhyama</i>
<i>Vaya</i>	<i>Madhyama</i>

Table 5: Investigations (Before Treatment)

Glycated Hb	8.10 %
FBS	234 mg/dL
Ser. Cholesterol Profile	
Total Cholesterol	237 mg/dL
Ser. Triglycerides	396 mg/dL
HDL Cholesterol	30.6 mg/dL
LDL Cholesterol	127.80 mg/dL
VLDL	79.2 mg/dL
CHOL/HDL Cholesterol Ratio	7.90
LDL/HDL Ratio	4.26

As per Ayurveda text the symptoms of *Madhumeha* are *Prabhootha Mutrata, Avila Mutrata, Karapada Daha, Shrama* etc.

Diagnosis: *Madhumeha* (Type 2 Diabetes mellitus)

MATERIALS AND METHODS

Therapeutic Intervention

Table 6: Treatment Plan

Shodhana karma (planned purification)	Administered Medications	Time/duration
<i>Deepana - Pachana</i>	<i>Avipattikar churna, Chitrakadi vati</i>	For 12 days
Started <i>Ghritpaana</i>	<i>Mahatikht ghrita</i> 13 th day – 30 ml	For 7 days

	14 th day - 60 ml 15 th day - 90 ml 16 th day - 120 ml 17 th day - 120 ml 18 th day - 150 ml 19 th day - 150 ml	
<i>Sarvang Swedana</i>	<i>Abhyanga - Mahanarayana taila</i> <i>Swedana (medicated steaming) - Dashmoola potli</i>	For 3 days
<i>Virechana</i>	<i>Trivrith leham</i> - 100gm once (empty stomach) <i>Triphla kwath</i> - 100ml (SOS) If <i>Vega</i> doesn't come then	On the same day (1 day)
<i>Sansarjana karma</i>	As indicated in diet (Table 7)	For 5 days

Table 7: Diet Details during Sansarjana Karma

Day	Timings	Meal
1 st day (on the day of <i>Virechana</i>)	Evening	Rice water <i>Maand</i> (1:14 :: Rice:Water)
2 nd day	Morning Evening	Rice water <i>Maand</i> <i>Peya</i> - (1:14 :: Rice:Water), take some amount of rice along with <i>Maand</i>
3 rd day	Morning Evening	<i>Peya</i> - Mentioned as above <i>Vilepi</i> - (1:14 :: Rice:Water), rub thoroughly, make a paste
4 th day	Morning Evening	<i>Vilepi</i> - Mentioned as above <i>Moong daal</i> – Without tempering
5 th day	Morning Evening	<i>Moong daal</i> – With tempering Normal diet - Onwards

RESULTS

Virechana procedure and diet control shows significant reduction in blood glucose levels along with complete relief from symptoms as in *Karapada Suptata* (numbness of both palms and feet) and marked relief from *Daurbalya* (weakness) and *Prabhuta Mutrata* (polyuria). (Table 8 and 9) with the completion of 28 *Vegas*.

Table 8: Subjective Parameters

S.no.	Criteria	Before treatment	After treatment
1.	<i>Prabhuta Mutrata</i> (polyuria)	8 - 10 times/day	4 - 5 times/day
2.	<i>Shrama</i> (weakness)	Moderate	Absent
3.	<i>Daha/Supti</i> in <i>Kara Pada Tala</i> (burning sensation of both palms and feet)	Moderate	Absent
4.	<i>Mukha Kantha Shosha</i> (dryness of mouth and throat)	Moderate	Absent

Table 9: Objective parameters

Investigations	Before treatment	After treatment	Unit
Weight	102	88.7	kg
FBS	234	103	mg/dL
HbA1c	8.10	6.5	%
Total Cholesterol	237	101	mg/ dL
S.triglycerides	396	70	mg/ dL

S.HDL Cholesterol	30.0	54.2	mg/ dL
LDL Cholesterol	127.80	32.8	mg/ dL
VLDL	79.2	14	mg/ dL
CHOL/HDL Cholesterol Ratio	7.90	1.863	
LDL/HDL Cholesterol Ratio	4.26	0.605	

DISCUSSION

Madhumeha, a type of *Prameha* has been described as *Anushangi* by *Acharya Charaka* which means a disease that runs for a prolonged course and remains attached forever. India has the largest number of diabetic's patients in the world and thus become the diabetic capital of the world.

The advancement of new technologies has greatly reduced the physical activity, results in irrelevant changes in our daily lifestyle as well. In *Prameha Agni* is disrupted, various factors which disturb the balance of *Tridosha*. Therefore, anything which is ingested is converted in *Ama*. In *Prameha*, especially *Medo dhatvagnimandya* is common. So, the treatment should be in path of restoration of *Agni* in its normal state and having *Kapha-Medohara* property. In *Snehana* with *Mahatiktghrita ghrīt, Tikta rasa* possess *Trishna Nigrahana (Mala Rupa Kapha)* property which reduces thirst. Due to *Dosha* elimination from the body after *Samshodhana Karma*, *Agni* becomes weak. So, *Samsarjana Karma* should also be followed to restore the strength of *Agni*.

CONCLUSION

The *Vyavayi Guna* of the *Virechana* procedure, gets absorbed quickly and due to its *Virya*, and reaches to all of the micro channels of the body and *Vikasi Guna* causes softening and loosening of the bond by *Dhatu Shaithilya Karma*. *Ushna guna* causes liquefactions of *Dosha Sanghata* and due to its *Tikshana Guna* breaks the *Mala* and *Doshas* in micro form. Due to *Sukshma Guna* by reaching in micro channels, disintegrates endogenous toxins, which are then excreted through micro channels.

Virechana occurs mainly due to *Prabhava*, *Prithvi* and *Jala* constitution and presence of *Sara Guna*. *Tikta Rasa* is *Kleda Upashoshaka*. in serum lipid profile, as the micro channels were cleared. *Tikta* and *Kashaya Rasa* are *Mutra Sangrahaniya Tikta Rasa* is *Akash* and *Vayu* dominant which leads to *Srotoshodhana* by which insulin resistance is also corrected and leads to better utilization of glucose.

Mukh Madhurta which is due to aggravated *Kapha*; *Virechana* leads to *Shoshana* of *Kapha (Mala)* and also causing *Srotomukh Shodhana* by which it cleanses mouth that increases mucus secretion of both

mouth and throat; hence overcoming dryness of mouth and hence acting on *Moola* of *Udakavaha Srotas* i.e., *Talu* and *Kloma*.

Large intestine secretes mucus; which contain moderate amount of bicarbonate ions, the elimination of *Mala* and *Pitta*, this mucus is secreted by gut and can be taken as *Kapha Vargiya Dravya* in *Virechana*.

In the *Virechana* procedure, the first *Karma* i.e., in *Poorvakarma*, *Deepana-pachana* (increasing digestive fire for digesting undigested material drugs can remove the obstruction at the *Dhatu* (tissue) followed by *Snehapana* which can dissolve the *Medo dhatu dosha* (fatty tissue toxins). These wastes are further eliminated by *Virechana Karma* (loose motions) procedure.

Virechana karma is more accepted cleansing process in *Panchkarma*. *Virechana* promotes metabolism and assimilation by stimulating the *Dhatwagni* while eliminates metabolic waste products specially *Pitta* and *Kapha* and burns *Ama*. It decreases excessive body heat and deeply cleanses the blood, liver and bile. It strengthens and rejuvenates the body tissues. Moreover, it can give additional benefits of feeling of well-being in sense organs, good sleep, bowel movements, correction of appetite, and digestion.

Thus, in this study we can consider *Virechana karma* showed improved results in *Madhumeha*.

After this study we also get results that if we detoxify (*Shodhana karma*) our body from time to time through the very simple procedure of *Virechana karma*, we can avoid many such diseases that are heavily affecting today's generation because of our poor diet and lifestyle.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understands that name and initial will not be published and due efforts will be made to conceal identity, but anonymity cannot be guaranteed.

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