



Case Study

**ROLE OF KATANKATERIYADI KWATHA IN THE MANAGEMENT OF MADHUMEHA (DIABETES MELLITUS TYPE II)**

Vd. Santosh I. Swami<sup>1</sup>, Vd. Ram B. Muddalkar<sup>2\*</sup>

<sup>1</sup>Associate Professor, <sup>2</sup>Third year PG student Kayachikitsa Department, S.G.R. Ayurved Mahavidyalaya, Solapur, Maharashtra, India.

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**ABSTRACT**

High blood sugar levels are a hallmark of a verity of metabolic disease together referred to as Diabetes mellitus (DM). It is divided into two categories: (type 1 DM) and (type 2 DM). Type 1 diabetes results from a complete or nearly complete lack of insulin, while type 2 diabetes includes various disorders marked by differing levels of insulin resistance, impaired insulin secretion, and increased glucose production. This report presents a case of a newly diagnosed type 2 diabetes patient who received three follow-ups with *Katankateriyadi Kwatha* over three months (90 days). Following treatment, there were reductions in the patient's fasting blood glucose, post-prandial blood glucose levels and HbA1c levels. Further-more, no adverse effects were observed. The finding in this clinical study are encouraging and provide evidence supporting the effectiveness of *Katankateriyadi Kwatha* in reducing type 2 diabetes mellitus in a patient.

**INTRODUCTION**

*Prameha* refers to a group of disorders characterized by increased frequency of urination, elevated urine volume, and the presence of cloudy urine. The *Acharyas* explain that in *Madhumeha*, there is an imbalance of the *Vata* and *Kapha doshas*, along with alterations in *Meda* and other *Dhatu*s, with *Ojas* acting as the affected substance which comes out of body through *Mutravaha Srotas*. A comparable condition is recognized in modern medicine as Diabetes Mellitus. Type 2 Diabetes Mellitus (DM) comprises a group of metabolic disorders marked by chronic high blood sugar levels, frequent urination, increased thirst, excessive hunger, weight loss, and fatigue, resulting from disturbances in carbohydrate, fat, and protein metabolism, often linked to an insufficient or ineffective insulin response.

Chronic high blood sugar can lead to long-term damage and dysfunction in various organs, including the eyes, kidneys, nerves, heart, and blood vessels. Symptoms associated with significant hyperglycemia

may include frequent urination, increased thirst, excessive hunger, weight loss, burning sensations in the palms and soles, tingling throughout the body, and occasionally blurred vision. Ayurvedic treatments, whether used alone or in combination with conventional medicine, are viewed as supportive options for managing diabetes.

The focus of *Madhumeha* treatment in Ayurveda is on controlling and reducing blood glucose levels, safeguarding target organs from damage, and enhancing overall quality of life. *Daruharidra*, *Chitraka*, *Yastimadhu*, *Amalaki*, *Bibhitaki* and *Haritaki* are the ingredients of *Katankateriyadi Kwatha*<sup>[1]</sup>. It is mentioned in *Chakradatta* as *Mehahara* by *Acharya Chakrapani (Meha roga dhikar)*. It lowers fasting plasma glucose and two-hour plasma glucose levels as well as HbA1c levels.

In *Madhumeha Avaranjanya* and *Dhatukshayajanya* pathogenesis along with *Meda Dhatu* obstruct the passage of *Vata Dosha*. One of illness caused by *Madhumeha* decrease *Meda Dhatawagni* which causes *Prabhut avil mutrata*. Drug present in *Katannkateriyadi Kwatha Kashay rasa*, *Ruksha*, *Laghu* and *Tikshna Guna*; *Ushna virya*, *Deepana Pachana*, *Tridosahara* properties<sup>[2]</sup> with hypoglycemic effect.

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**MATERIAL AND METHODOLOGY**

**Case History**

A 59 years old Male belonging to low socio-economic status family was registered in O.P.D. No12063., on 13-04-2024 at SSNJ Ayurvedic Hospital, Solapur, Maharashtra. He completed his education up to the intermediate level, he comes from a rural area, and works as a salesman. He complained of *Prabhoota mutrata (Polyurea)* 5-6 times, since 3 months, He was having *Kshudhadhikya* (excessive hunger), *Pipasadhikya* (excessive thirst), *Dourbalya* (weakness), *Karapada daha* (burning sensation in both sole & palm). There was no family history of diabetes or any other systemic illnesses, and he had not yet taken any anti-diabetic medications. All investigations were done. BSL (F),BSL (PP) and HbA1c were fasting blood

sugar (160.0 mg/dl), 2hr plasma glucose (245.mg/dl) and HbA1c (6.9%) increased.

**Diagnostic Criteria**

**Subjective Criteria<sup>[3]</sup>**

1. *Prabhoota mutrata (Polyurea)*
2. *Pipasadhikya* (excessive thirst)
3. *Karapada daha* (burning sensation)
4. *Kshudhadhikya* (excessive hunger)
5. *Dourbalya* (weakness)

**Objective Criteria<sup>[4]</sup>**

1. BSL Fasting
2. BSL Post Prandial
3. HbA1c

**Table 1: Gradation of Subjective Criteria<sup>[5]</sup>**

Sr.no	Lakshana	Grade 0	Grade 1	Grade 2	Grade 3
1	Quantity of urine Frequency of urine	1.5 to 2.5 lit/day 3 to 5 times/ day and 1-2 times at night	2.5 to 3 lit/ day 5 to 7 times/ day and 1-2 times at night.	3 to 3.5 lit/ day 7 to 10 times/ day, 3-4 times at night.	3.5 and above lit/day 10 to 12 times/ day, more than 5 times at night.
2	<i>Pipasa Adhikya</i> Quantity of water intake	2 to 3 lit / day (24 hrs).	3 to 4 lit / day.	4 to 5 lit / day	more than 5 litres / day
3	<i>Karapadadaha</i>	No <i>Daha</i> present	Occasional <i>Daha</i>	<i>Daha</i> mild but continuous	<i>Daha</i> severe and continuous
4	<i>Ksudhadhikya</i>	Normal appetite (3meals/ day)	Mild increased (1-2 more meals than normal)	Moderately increased (2-3 meals than normal)	Markedly increased (4-5 meals than normal)
5	<i>Daurbalya</i>	Can do routine physical activity without any difficulty	Can do routine physical activity with little difficulty	Can do mild physical activity only	Can do mild physical activity with difficulty

**Personal History**

Dietary Habits (*Aahara*): Irregular and vegetarian  
 Appetite (*Abhyavaran shakti*): Increased  
 Digestive Power (*Jaran Shakti*): Good  
 Addiction: No addiction  
 Bowel Habit: Irregular  
 Physical activity: Moderate active

**General Examination**

General condition- Good  
 Built: Obese  
 Nutritional status: Adequate  
 Height: 5'2"  
 Weight: 76kg  
 B.P.= 130/80mm of Hg  
 Pulse rate: 80/min.  
 Respiratory rate: 16/min.

**Treatment**

**Interventions**

<b>Name</b>	<i>Katankateriyadi Kwatha</i>
<b>Dose</b>	25ml <i>Kwatha</i>
<b>Aushadhi Sevan Kala</b>	<i>Pragbhakta</i> (Before 15 min of meal) <i>BID</i> (two times in a day)
<b>Route of Administration</b>	Orally
<b>Duration</b>	90 days
<b>Follow up</b>	After every 30 days i.e., 30 <sup>th</sup> , 60 <sup>th</sup> and 90 <sup>th</sup> days.

Based on the history and clinical investigations, a diagnosis of newly diagnosed type 2 Diabetes Mellitus was strongly suspected. The patient began treatment with a coarse powder along with dietary management and regular exercise or yoga. We have given *Katankateriyadi Kwatha* 25ml, two times a day before meal (30minutes). During the case study, the patient was called once a month for next 3 follow up i.e., 30<sup>th</sup>, 60<sup>th</sup>, 90<sup>th</sup> day and compliance. Nutrition and physical activity are essential components of a healthy lifestyle for diabetic patients, helping to maintain blood glucose levels within a normal range.

**Diet Management**

Refined sugars including glucose, sucrose, and products like soft drinks and candies, should be avoided except during serious illness or episodes of low blood sugar. These foods contain simple sugars that are rapidly absorbed, leading to quick increases in blood sugar levels.

- Animal fats, such as butter, lard, and egg yolk, should be replaced with vegetable oils that are lower in saturated fats and cholesterol.
- Regardless of hypertension status, salt intake should be minimized.
- Diabetic patients should refrain from consuming alcohol and smoking cigarettes.
- Eating smaller meals throughout the day, instead of one or two large meals, can help prevent spikes in blood sugar levels.

**Physical Exercise**

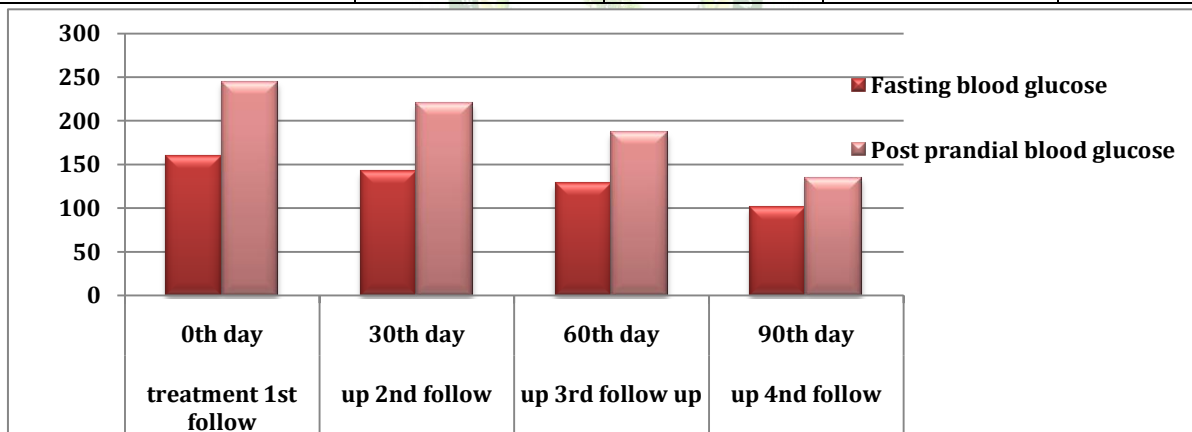
- Engaging in physical activity for 30 minutes each day enables body cells to absorb glucose, helping to reduce blood sugar levels.
- Walking is the best exercise for *Madhumeha*.

**RESULT**

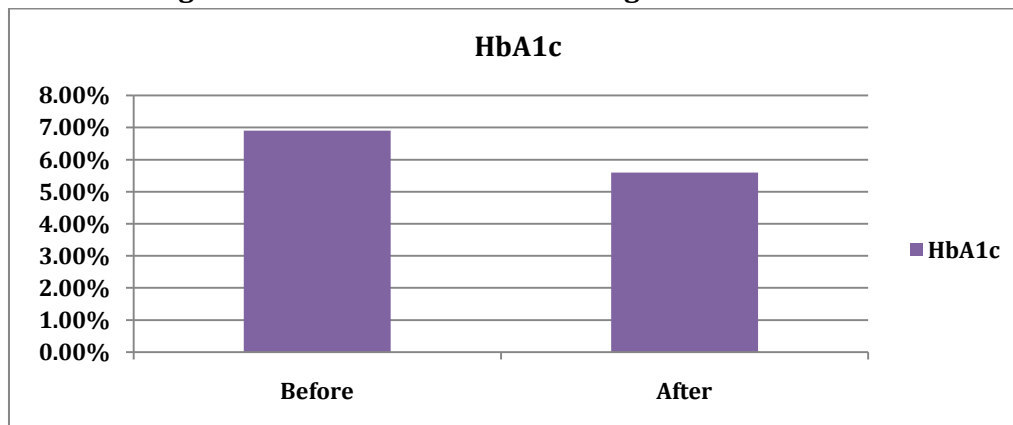
After treatment of three months follow up on the 4<sup>th</sup> visit the patient to achieve the glycemic control with Fasting plasma glucose 100.0mg/dl, post prandial glucose 135.0mg/dl and HbA1c 5.6%.

**Table 2: Follow up Readings**

Biochemical parameters Before	Treatment 1 <sup>st</sup> follow 0 <sup>th</sup> day	2 <sup>nd</sup> follow 30 <sup>th</sup> day	3 <sup>rd</sup> follow up 60 <sup>th</sup> day	4 <sup>th</sup> follow 90 <sup>th</sup> day
Fasting blood glucose	160	142	128	100
Post prandial blood glucose	245	220	187	135
HbA1c	6.9	-	-	5.6



**Figure 1: Distribution of BSL Fasting and Post Prandial**



**Figure 2: BT and AT Difference of HbA1c**

Table 3: Gradation BT and AT of Diagnostic symptoms

Diagnostic Criteria	Prabhut mutrata	Pipasaadhikya	Karapadadaha	Kshudhadhikya	Dourbalya
BT Grade	3	2	3	2	1
AT Grade	1	1	2	0	0

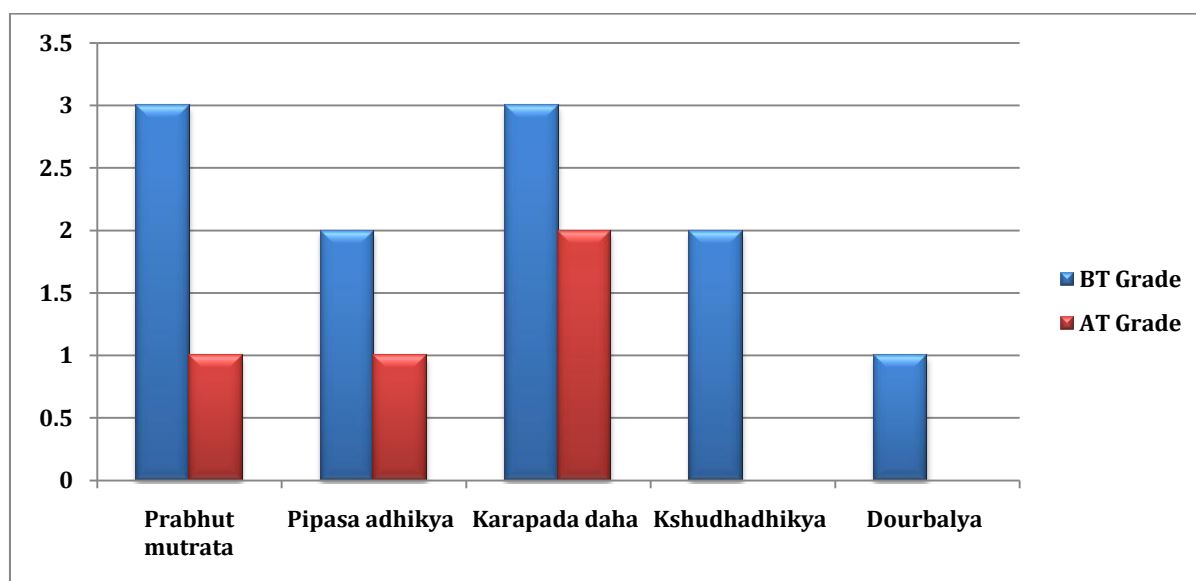


Figure 3: BT and AT of Diagnostic Symptoms

### Mode of Action of Kwatha

*Katankateriyadi kwatha* contains most of drugs which belongs to *Lekhaniya Gana* (substances that reduced excess body tissue). *Lekhaniya gana* reduces *Dushta kapha*, *Meda* as well as *Kleda* consequently having *Pramehghna* properties. According to *rasa*, *Katankateriyadi Kwatha* contains the maximum drugs which are *Kashay*, *Tikta*, and *Katu rasa* present in it act *Kapha shamak* and *Agni deepak* in nature and facilitates *Srotodushti*, *Kasaya rasa* act Obstruct the *Shariragata kleda* towards *Basti*. Presence of *Ruksha guna* directly pacifies *Kapha* due to opposite in property. *Laghu guna* of this *Kwatha* supports in digestion of *Amadosha* by boosting *Vayu* and *Agni mahabhuta*. *Tikshna guna* of this drug is responsible of *Sroto suddhi* and also perform *Lekhana karma* to Eliminate *Meda*, *kaphanashak karma* and *Sodhan karma* to remove *Mala rupa dosha*. *Ushna virya* drugs of this *Kwath* act on *Kapha* and *Vata dosha shamana*.

### Action on Symptoms

The main function of *Tikta rasa*<sup>[6]</sup> is "*Kleda-medo-vasa-majja-lasika-puya-sweda-mootra-purish-pitta-shleshmo Upshosana*" due to this properties it acts on *Dushya* of *Prameha* and reduces *Prabhuta mutrata* and *Avil mutrata*. *Tikta rasa* has *Sthirakarana guna* it reduces the *Shaithilya* of *mansadhatu*, *Twacha* and stabilizes the *Mansa dhatu*. Its *Daha Shaman* and *Shita guna* reduces *Karapad Daha lakshan*. Its *Trishna shaman* properties help to control *Pipasa lakshana*. It has *Dipan* and *Pachan* properties which increases the *Kshudha* by decreasing *Agnimandhya* and corrects the *Dhatvagni mandhya*. Due to the *Lekhana* properties it

reduces the *Apachit meda dhatu*. *Laghu* and *Ruksha guna* of *Tikta rasa* reduces *Dravata* of *Kapha*, *Meda*, *kleda*. So it helps to relieve the *Alasya* and *Atinindra lakshana* and also reduce the *Karapad suptata*.

Properties of *Katu rasa*<sup>[7]</sup> increases the *Jatharagni* due to *Dipan karya* and *Ushna guna*. It reduces the *Mukha madhurya lakshana* due to *Mukha shudhi guna*. It decreases the *Strotorodha*. It also helps to reduce the *Dourbalya* of *Indriya*. *Mamsa-kleda-sweda-nashak*, *Mamsa vilekhan*, *Marganvivrunoti* and *Sleshmanam shamayati*, these functions of *Katu rasa* which help to reduce the *Lakshanas* of *Madhueha*.

According to *Acharya Charaka karma* of *Kashay rasa*<sup>[8]</sup> is *Shoshan* which helps in reducing excessive *Kleda* formed in the body, hence relieving the symptoms like *Prabhuta mutrata* and *Avil mutrata*. *Kashaya rasa* also has properties like *Sangrahi*, *Samshaman* and *Stambhak*.

*Katankateriyadi Kwatha* are of *Ushna virya* hence, it alleviate the *Vata dosha* and *Kapha dosha*. *Shita virya* alleviate the *Pitta dosha* and has *Sthambhak* property.

*Katu Vipak* of these *Kwatha* is responsible for the *Teja*, *Vayu*, and *Akash Mahabhoota* in the *Pakwashaya* and acts on *Apana vayu*. According to *Acharya charaka*, *Katu rasa* with its *Laghu*, *Ruksha guna* produces *Baddhamutrata*. According to *Acharya Sushruta* *Katu Vipaka* has *Kaphahara* property.



According to *Acharya Charaka*, as *Madhura vipak* having *Snighna* and *Guru guna* it acts as a *Shukravardhaka* hence *Ojovardhaka*.

## DISCUSSION

*Katankateriyadi Kwatha* is classical formulation act on *Madhumeha* (Type 2 DM). The dose of *Kwatha* is 25ml. For preparation *Kwatha*, *Bharad* (coarse powder) of all drugs in equal amount of each ingredient of *Kwatha* and mixed water 4 times of *Bharad*, then boil the water in low flame remains till its 1/4<sup>th</sup> total. Now separate the remains liquid decoction with cotton cloth and take 25ml of *Kwatha* twice time daily before meal (15 minutes). Screening tool for the diagnosis of diabetes is HbA1c. There was a significant reduction in HbA1c of 1.3%, FBG of 60mg/dl, and PPBG of 110mg/dl, in an average duration of 90 days.

## CONCLUSION

The study confirms that in the *Samprapti* of disease there is dominance of *Kapha dosha* and *Vata dosha*. The overall cost of the treatment, availability of drugs and mode of administration is quite easy and effective.

Many plants are the primary source of natural products with pharmaceutical significance, and numerous single and compound herbal formulations have been documented in Ayurvedic classics for the treatment of *Madhumeha* (Diabetes Mellitus Type II). Ayurvedic drugs, also known as medicinal plants, are thought to be the best chemists in the world and are non-toxic. Because of synthetic medications negative effects, unpleasant reactions, and several other related issues. Natural resources with anti-diabetic properties have quickly gained popularity due to the negative

effects, unpleasant responses, and several other related issues of manufactured medications. Polyherbal medications are a good option since they are effective, have fewer adverse effects, have a wide range of action, and are reasonably priced when compared to synthetic drugs. The cornerstones of managing type 2 diabetes are diet and sensible lifestyle changes.

## REFERENCES

1. Vaidyaprabha Hindi Commentary Chakradatta of Shri Chakrapanidatta: Chaukhambha, Third Edition: 1997, Chapter 35/23, Varanasi.
2. Acharya Priyavat S. Dravyaguna vigyan, Part2; chapter 5, Varanasi: Chaukhamba Bharati Akadami, 2017; 236, 256, 356, 537, 674, 678.
3. Khader A: Management of Madhumeha with Mehari choorna- A clinical evaluation; August 2004.
4. Shah S. API Text book of medicine; Edi 8<sup>th</sup> Mumbai: Association of physician of India; 2008. 1049.
5. Khader A: Management of Madhumeha with Mehari choorna- A Clinical Evaluation; August 2004.
6. Charaka Samhita, Acharya Priyavatt sharma, Reprint ed. Varanasi: Chaukhambha Orientalia; 2012, Sutra Sthana. chap. no. 26, Verse. no.42/5. page. no. 156.
7. Charaka Samhita, Acharya Priyavatt sharma, Reprint ed. Varanasi: Chaukhambha Orientalia; 2012, Sutra Sthana. chap.no. 26, Verse no. 42/4, page no. 155.
8. Charaka Samhita, Acharya Priyavatt sharma, Reprint ed. Varanasi: Chaukhambha Orientalia; 2012, Sutra Sthana.chap.no 26, Verse no. 43. Page no. 156.

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### \*Address for correspondence

**Dr. Ram Muddalkar**

PG Scholar,  
Department of Kayachikitsa,  
S.G.R. Ayurved Mahavidyalaya,  
Solapur, Maharashtra, India.

Email:

[rammuddalkar1902@gmail.com](mailto:rammuddalkar1902@gmail.com)

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