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# MANAGEMENT OF TYPE 2 DIABETES THROUGH AYURVEDA: A CASE STUDY

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#### **ABSTRACT**

**Background:** A 47-year-old woman with known complaint of hypertension was diagnosed with diabetes type 2 with a post prandial blood sugar level of 349 mg/dl & fasting blood sugar level 164mg/dl on 1/2/2019 for first time. **Methodology**: The doctor prescribed oral hypoglycaemic agent (O.H.A.) and advised HbA1c test after next visit. This above counselling was not satisfactory for the patient so instead of taking Allopathic treatment, she has chosen *Ayurvedic treatment*. Results: after starting *Ayurvedic* treatment with "*Prameh-har kwath* and *Dhatri Nisha yoga* followed by regular morning walk. Patient started to recover very fast and within 45 days, she achieved normal blood sugar level and a better energy level.

Keywords: Prameh-har kwath, Oral Hypoglycemic Agent, Fasting blood sugar

# INTRODUCTION

Diabetes mellitus (DM) is one of the most leading chronic, heterogeneous and life threatening disease and today it has spread to every region of the globe. The prevalence of DM will be 5.4% by the year 2025, with the global diabetic population reaching to 300 million.<sup>1</sup>

The word Diabetes mellitus has been derived from two words-

Diabetes - It's a Greek word that means 'siphon through'.

Mellitus - A Latin word, that means 'sweetened with honey'.

DM is a metabolic disorder i.e. it is caused due to malfunctioning of the pancrease, which is responsible for the production of the insulin hormone.

According to Ayurveda diabetes is termed as Prameh.

The word *prameha* is derived from two words-*Pra* means excess, *Meha* means passing of urine.

*Pramehas* are a list of urinary disorders, especially characterised by profuse urination which is turbid in color

In Ayurveda *Prameha* is a *Kapha pradhana Tridoshaj Vyadhi*. *Prameha* occurs due to *Srotodusti* mainly *Mutravaha Ssrotas* (vitiation of urinary channels) caused by vitiation of all *Doshas* mainly *Bahudrava Shleshma* and it shows *Prabhut aavil Mutrata*.<sup>2</sup>

It is one of the disease which has been given prime importance in *Ayurvedic* classics as it is included in *Mahagadas*<sup>3</sup> i.e. disease which are difficult to treat.

There are 20 subtypes of *prameh*. 10 out of them are termed as *kaphaj prameh*, 6 subtypes of *prameh* as *pittaj*, and 4 subtypes as *vataj prameh*. The *kaphaj* 

prameh is the least complicated and easily curable form of prameh. The pittaj and vataj prameh are respectively more acute form of prameh. The most complicated and incurable form of prameh is the Madhumeha.

According to Acharyas if not resolved timely, all kind of prameha lead to Madhumeha in Ayurveda as said in Sushruta Nidan Chapter 6 verses 27- "sarv ev pramehastu kalenapratikarana, Madhumehtvamayanti tada asadhya bhavanti hi." 4.

#### **Material and Methods**

Type of study: Single observational case study without any control group.

Study centre: Govt. Ayurveda Research centres & Hospital, Lake Palace Road, Gulab Bagh, associated with Madan Mohan Malviya Ayurved College, Udaipur.

History of present illness- A Hindu, Married 47 year old female patient visited (February 4, 2019) the outdoor department of Kayachikitsa of Govt. Ayu. Research Centre & hospital, Udaipur with OPD no-1627 with complains of madhuryamasyata (sweet taste of mouth), shithilangata (debility), Kriyahani (uneasiness), Mutradhikya (polyurea), trishadhikya (polydipsia), for past one month with associated symptoms like nindra vriddhi (excessive sleep), Vibandha (constipation) for past 15 days. According to patient, she was asymptomatic a month ago.

Past history - History of HTN since past 10 yrs.

# Personal history-

- vegetarian (use of sweet, oily & fatty food, less intake of green leafy vegetables)

Water consumption - 2-3 litre/day

- irregular (constipated or 2-3 **Bowel** 

times a day with improper formation)

Micturation - 10-12 times per day

- None Addiction

General examination-

**Blood pressure-** 130/90 mmHg

**Pulse rate-** 78/min

**Respiratory rate-** 16/min

Weight- 67kg

Urine – dark yellow

**Per Abdomen-** fullness of abdomen along with right hypochondric and epigastric region tenderness

**Blood sugar-** Fasting -164mg/dl Post prandial- 349mg/dl

#### Astavidha Pariksha-

- ➤ Nadi kaph-vatik 78/min
- Mala Asamyak
- > Mutra- Atipravirti
- ➤ Jiwha malavrit
- > Shabda- Samyak
- > Sparsha snigdha- sheeta
- ➤ Drik samyak
- > Aakriti- madhyam

# Treatment plan-

Drug Dhatri -nisha churna and freshly prepared *Prameh-har kwatha*.

50ml prameh-har kwath pragbhukta (before food) twice a day.

3 grm of *Dhatri-Nisha yoga*(after food) twice a day.

**Duration** - Three months (90 days).

Follow up - every 10th day.

Prameh-har kwath & Dhatri nisha yoga mentioned in Charak Samhita as "Pramehanashak samanya yoga" in Pramehchikisaadhyaya, 6th Chapter of Chikitsasthana.

"Darvi Suraha Triphala Smustam kashayamutkwathya pibet pramehi, Kshodraein yuktamthwa Haridram pibet rasenamalkiphalanam." (ch.chi. 6/26)

### 1.1 Contents & preparation of Pramehhar kwath-

- ✓ Daruharidra, Devdaru, Amalaki, Haritaki, Vibhitak, Nagarmotha all the six drugs were taken in equal proportions and pounded so as to get their coarse powder.
- ✓ 1 part of the coarse powder is boiled with 16 parts of water and reduced to 1/4<sup>th</sup> quantity.
- ✓ The contents are filtered off and the liquid part was given to the patient lukewarm & fresh before meal, twice a day.

#### 1.2 Contents & preparation of Dhatri-Nisha Yoga-

- ✓ Mixture of Fine powder of Amalaki (2 parts) & Haridra (1part) was prepared.
- ✓ 3grm of this mixture was given to the patient twice a day. (in particular text Haridra powder and honey are said to be taken mixed in Amalaki juice)

#### **Result & Observations-**

Table 1: Effect of Pramehhar kwath and Dhatri Nisha yoga on objective parameter

Sr. No.	Followup (time of period)	Fasting blood sugar	Post prandial blood sugar (PPBS)
1.	1 <sup>st</sup> visit 1/2/2019	164mg/dl	349mg/dl
2.	2 <sup>nd</sup> visit 10/2/2019	168mg/dl	320 mg/dl
3.	3 <sup>rd</sup> visit 20/2/2019	166mg/dl	265mg/dl
4.	4 <sup>th</sup> visit 2/3/2019	168mg/dl	320mg/dl
5.	5 <sup>th</sup> visit 12/3/2019	146mg/dl	150mg/dl
6.	6 <sup>th</sup> visit 22/3/2019	118mg/dl	150mg/dl
7.	7 <sup>th</sup> visit 1/4/2019	135mg/dl	138mg/dl
8.	8 <sup>th</sup> visit 11/4/2019	122mg/dl	192mg/dl
9.	9 <sup>th</sup> visit 22/4/2019	112mg/dl	155mg/dl
10.	10 <sup>th</sup> visit 28/2/2019	109mg/dl	150mg/dl

**Table 2:** Effect of *Pramehhar kwath* and *Dhatri Nisha yoga* on subjective parameter

Followup	Prabhuta Mutrata	kriyahani	Pipasa adhikayata	Madhuram Asayta	Shithilangta	Khusdha vridhi
1 <sup>st</sup> day	10-12 times a day	++++	+++	++	+++	++
10 <sup>th</sup> day	9-10 times a day	+++	++	+	++	++
20 <sup>th</sup> day	8-9 times a day	+++	++	+	++	+
30 <sup>th</sup> day	7-8 times a day	++	+	+	+	+
40 <sup>th</sup> day	6-7 times a day	++	+	_	+	+
50 <sup>th</sup> day	6-7 times a day	++	_	_	+	_
60 <sup>th</sup> day	6-7 times a day	++	_	_	+	_
70 <sup>th</sup> day	6-7 times a ady	+	_	_	_	_
80 <sup>th</sup> day	5-6 times a day	_	_	_	_	_
90 <sup>th</sup> day	5-6 times a day	_	_	_	_	_

#### DISCUSSION

According to *Ayurveda* the line of treatment of *prameha* is strictly on individual's constitution. It is based on entire change in the lifestyle of the person, along with the medication and diet, the patient is also advised to lead a healthy as well as active lifestyle.

Aim of treatment was not only to achieve glycemic control but also treat root cause of a disease and prevent further complications. In spite of using O.H.A. in treatments as it can't achieve the glycemic markers properly and also many of cases even though achieving biochemical markers patient can't have significant relief in clinical symptoms. So with the curiosity, is there any better option to achieve good glycemic marker along with reduced clinical symptoms, we have selected the Ayurvedic formulation "Prameh-har kwath & Dhatri nisha yoga mentioned in Charak Samhita as "Pramehanashak samanya yoga" in Pramehchikisaadhyaya, 6<sup>th</sup> Chapter of Chikitsasthana.

All the Drugs used in these two formulations, are *katu*, *tikta*, *kashaya rasa pradhan*, antioxidant, rejuvenator, diuretic, *kaphavatashamak* in nature and mentioned in the management of *Prameha* by *Acharyas*. *Tikta* and *katu rasa pradhan* drugs improve the fat and carbohydrate metabolism.

### Drug review-

1. Daruharidra – Berberis lyceum is a popular drug to treat diabetes. Berberis root produces high concentrations of berberine, and in traditional medicine, the whole extracts of this plant is used widely to treat diabetes. It is proven effective in lowering fasting blood sugar as well it helps in regulating urine excretion.

Tikta daruharidra tu katushna vrna**mehnut**, Kanduvisarptwagdoshvishkarnakshidoshnut. (rajnighantu 202)

#### 2. Devdaru-

Rasa-Tikta (bitter), Katu (pungent), Kashaya (Astringent)

Guna- Rooksha (Dry), Laghu (Light)

Vipaka- Katu (undergoes pungent taste conversion after 'digestion.)

Veerya- Ushna (Hot potency)

"Devdaru laghu snigdham tiktoshan katupaki ch,...... **Prameh**pinasshleshmkaskandusameernut."

(Bhavprakhash 24)

Devdaru is said to be useful in the management of prameha as it is tikta rasa pradhan and katu vipaki. It is useful to control obesity as it helps improve metabolism and reduce Ama. This is due to its Deepan (appetizer) and Pachan (digestive) properties. And it is found significantly effective in the management of symptoms of diabetes.

3. Triphala - Triphala (3 fruits) is a very commonly used combination in the treatment of various disease. It is also used as an anti diabetic, rejuvenator, adaptogenic, detoxifying agent, antiageing and many more.

"Triphala kaphpittaghni **meh**kusthhara sara, Chakshushya deepani ruchya vishamjwarnashini". (Bh. Ni. Haritakyadivarga; 43) Page no.175

#### 4. Mustak -

"Mustam tiktam himam grahi deepanam pachnam katu". (Kaidev Nighantu 1358)

Rasa- Tikta, katu, kashaya.

Guna- Laghu

Veerya- sheeta

Vipaka- Katu

Among all drugs *musta* is the best digestive, absorbant and caraminative. It relieves *Ama dosha*.

#### 5. Amalaki-

"Haritakisamam Dhatriphlam kintu visheshata, Raktapittpramehghanam param vrshyam rasayanam". (Bhavprakash)

It balances *Kapha dosha* due to dryness and astringent properties. Also it is said to be useful in the management of Diabetes (*pramehghan*) and urinary tract disorder

Amla was studied to demonstrate hypoglycaemic activity in an animal experimental research study.<sup>5</sup>

#### 6. Haridra-

Turmeric (curcuma longa), has been widely used in the management of Prameha. The active component of turmeric, curcumin, has caught attention as a potential treatment for diabetes. Turmeric also balances blood sugar levels, boosts immunity, reduces body fat, and prevents infection, thus helping in prevention and cure of diabetes.

"Haridra katuka tikta rukshoshna kaphpittnut, Varnya twagdosh**meha**sragshothpanduvranapaha". (Bhav. Ni. Haritakyadi varg 197) Page no. 214

# CONCLUSION

Ayurveda is the traditional system of Indian medicine which aims to promote and maintain balance in order to prevent disease or cure disease. The treatment used here was purely Ayurvedic without any interference of modern medicines, so as to bring out proper conclusion on the usage and efficiency of Ayurvedic treatment. Hereby we can conclude that Ayurvedic principle when used wisely and with proper reference can definitely give good hand in the treatment of today's complicated disease.

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