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.¹

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 Srotas (vitiation of urinary channels) caused by vitiation of all Doshas mainly Bahudrava Shleshma and it shows Prabhat aavil Mutrata.² It is one of the disease which has been given prime importance in Ayurvedic classics as it is included in Mahagadas³ 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 prame-hastu kalenapratikarana, Madhumehtvamayanti tada asadhyav bhavanti hi.”

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

Water consumption - 2-3 litre/day

Bowel - irregular (constipated or 2-3 times a day with improper formation)

Micturation - 10-12 times per day

Addiction - None

**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

**Asthidha Pariksha-**

➢ Nadi – kaph-vatik 78/min

➢ Mala - Asamyak

➢ Mutra- Atipravirti

➢ Jiwha – malavrit

➢ Shabda- Samyak

➢ Sparsha – snigdha- sheeta

➢ Drik – sanyak

➢ Aakriti- madhyam

**Treatment plan-**

**Drug**

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

**Dose**

- 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, Vibhittak, 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 1/4th 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

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

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

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

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, 6th 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 katusha vrnamehnusat, Kanduvisarpwagdoshvishkarnakshidoshnust. (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 pinashleshm kaskandusameernut.”
(Bhavprakasha 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, anti-aging and many more.
“Triphala kaphpittaghni meh kusthhara sara, Chakshushya deepani ruchya vishamjwarnashini”.
(Bh. Ni. Haritakyadi varg; 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 Dhatribhram kintu visheshhata, Raktapitpramehghanam 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.5

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 twagdoshmehasragshothpandurovanapaha”.
(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.

REFERENCES
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