

**EFFECTIVE MANAGEMENT OF DIABETES MELLITUS THROUGH AYURVEDA- A
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ABSTRACT

Many among the Indian population have started to rely upon processed foods that contain a huge percentage of trans-fat, sugars, and other unhealthy and artificial ingredients, lack of physical activity, sedentary life style all of them team up in causing various types of disorder. Diabetes mellitus is one of the prevalent Life style-disorder of recent times because of changing life style. The disease is characterized by increased sugar levels in Blood and urine. It can be equated to Prameha which is one of the Astamahagada. It has been explained in detail in all the Bruhatrayees as a separate disease. This disease mainly depends on the Ahara and vihara of the individual. All the Pramehas initially start with the vitiation of the Kapha dosha and end up in Vata dosha janitha Madhumeha. In order to overcome this, Life style modifications is a must. Hence proper diagnosis of the disease at right time will help us in treating the disease and avoid the complications. This article is an example to understand that timely intervention and proper guidance can reverse the diabetes mellitus. The available data is based on the clinical findings only. **Aim and objective:** To assess the efficacy of classical approach in the management of Diabetes Mellitus. **Setting:** Swasthavritta and Yoga, OPD and IPD, SDMIAH, Bengaluru. **Method:** Udwarthana, Shodana, Shamana, Ahara, and Vihara, Yoga & Accupuncture was advised and assessed before treatment and after treatment, advised for follow up. **Results:** The treatment adopted is effective in the management of Diabetes Mellitus and to improve the quality of life.

KEYWORDS: Prameha, Diabetes Mellitus, Life style disorders, Yoga.**INTRODUCTION**

Diabetes Mellitus is the most common Life style disorder characterized by hyperglycaemia, insulin resistance and relative insulin deficiency.^[1] According to the International Diabetes Federation (IDF), approximately 415 million adults between the ages of 20-79 years had diabetes mellitus in 2015. DM is proving to be a global public health burden as this number is expected to rise to 615 million by 2040.^[2] It is estimated that by 2030 this would have risen to 552 million.^[3] Ayurveda describes a set of complex clinical disorders with frequent abnormal micturition, collectively called Prameha (Diabetes Mellitus), which correlate in many ways with obesity, metabolic syndrome and DM.^[4] Type 2 DM is analogous to Sthula pramehi (Obese Diabetic) which is also known as Apathyanimittaja Prameha or acquired type of diabetes resulting due to faulty lifestyle.^[5] Samshodhana (purification) is the best treatment for the elimination of Doshas. Vagbhata has mentioned that Doshas should be eliminated through the nearest pathway.^[6] Ayurvedic medications with lifestyle modifications contribute to desired clinical outcome as proper diet and management of daily routines will remove the causative factors of disease and helps in preventing progression of the

disease. Yoga has been practiced since ancient times to manage the physiology of the body. This not only improves the flexibility but also improves the function of both endocrines and exocrine glands of the body. Various studies have reported that Yoga has a positive impact in the management of Type 2 diabetes. Different Asanas such as Surya Namaskara helps in insulin production and improvement of digestive fire.^[7] Present case report deals with the Ayurvedic approach of Panchakarma, Ayurvedic medications, Yoga, Pathyahara and lifestyle counselling. All of these helped to achieve desired clinical outcome without causing any side effects and there was no recurrence of symptoms in the follow up period of about one year.

CASE REPORT

- A 26-year old female patient came to OPD of Swasthavritta and yoga with complaints of irregular menstruation since 2 years. Associated with c/o complaints of experiencing increased frequency of micturition, thirst and Fatigue with minimal work capacity. Past history revealed that patient was a known case of PCOS. There is a family history of PCOS & DM from her maternal side. Astavidha

Pariksha, Dasha vidha Pariksha, systemic and general physical examinations with anthropometry of the patient was done. Investigations showed normal Hematological report but changes were seen in the Fasting Blood Sugar, Post Prandial Blood Sugar and Urine Sugar tests. Considering the examinations, Lab investigation findings, patient was diagnosed as Type 2 Diabetes Mellitus.

- **Setting:** Department Of Swasthavritta and Yoga, OPD and IPD-SDMIAH, Bengaluru.
- **Method:** Shodhana, Shamana Chikitsa Yoga was

adopted and assessment was done before and after treatment.

Past History: Patient is a known case of PCOS since 2 years.

Family history: Mother was known case of Diabetes Mellitus.

Menstrual history: 2-3 days /30-40 days – irregular cycle, No dysmenorrhea, white discharge.

Table 1: Anthropometry And Personal History Before Starting the Treatment.

| | |
|-------------|--|
| B.P. | 120/80 mm of Hg |
| Pulse | 74 beats/min |
| Ht. | 160 cms |
| Wt. | 60 kg |
| BMI | 23.4 |
| Ahaara | Mixed diet, Non-Veg, once in 2 days. |
| Vihara | Avyayama, Sedentary life style. |
| Appetite | Increased |
| Bowels | Regular, normal in consistency, once in a day. |
| Micturition | 5-6 times in Day, 1-2 times in Night |
| Sleep | Good, sound sleep |
| Habits | Fond of Sweets & Chocolates, Bakery Items, Junk Food and Fried Items |

Table 2: General Physical Examination. Patient had a Bulky appearance, endomorphic built and was well nourished with normal built.

| | |
|-----------------|----------------|
| Appearance | Normal |
| Built | Ectomorphic |
| Nourishment | Well nourished |
| Gait | Normal |
| Pallor | Absent |
| Icterus | Absent |
| Cyanosis | Absent |
| Clubbing | Absent |
| Edema | Absent |
| Lymphadenopathy | Absent |

Table 3: Systemic Examination, No evident changes were noted.

| | |
|-----|---|
| RS | B/L, NVBS heard |
| CVS | S1 S2 heard |
| P/A | SOFT, NAD, Distended due to fat |
| CNS | Well oriented, conscious to time, place and person. |

INVESTIGATIONAL HISTORY

Table 4: History of Laboratory Investigations.

| | |
|------------------|--------------------------|
| HB | 11.3 gm % |
| W.B.C | 8,000 cells / cu mm |
| E.S.R | 34mm / hr |
| Neutrophils | 53% |
| Lymphocytes | 42% |
| Monocytes | 01% |
| Eosinophils | 02% |
| Platelets | 2.25 lakhs cells / cu mm |
| RBC Count | 4.08 millions/cu mm |
| RBS* | 300 mg /dl |
| F.B.S* | 279 mg /dl |
| PPBS* | 401 mg /dl |
| FUS* | 1 mg/ml |
| PPUS* | 1.4mg/ml |
| Blood urea | 15.1 mg / dl |
| Serum creatinine | 0.7 mg/ dl |

Table 5: Haemogram Report.

| | |
|---------|---------|
| P.C.V | 35.5% |
| M.C.V | 78.2 fl |
| M.C.H | 24.3 Pg |
| M.C.H.C | 31.1% |
| RDW | 13% |

USG ABDOMEN showed **Bilateral Polycystic Ovaries** and **ECG** showed **NORMAL** study, there were no significant changes noted.

Table 6: Dashavidha Rogi Pareeksha.

| Prakriti | Dwandwaja, Kapha-Pitta | |
|----------------|------------------------|----------|
| Vikrita Dosha | Kapha | |
| Dushya | Rasa, Mamsa and Meda. | |
| Sara | Madhyama | |
| Samhanana | Madhyama | |
| Satva | Madhyama | |
| Aahara Sakthi | Abhyavarana shakti | Pravara |
| | Jarana shakti | Madhyama |
| Vyayama Sakthi | Avara | |
| Satmya | Madhyama | |
| Vaya | Madhyama | |
| Pramana | Madhyama | |

Table 7: Astasthan Pareeksha.

| | |
|---------|--|
| Nadi | Prakrita |
| Mala | Niraama Mala, Prakrita. |
| Mootra | Vikrita {5-6 times in Day, 1-2 times in Night} |
| Jihva | Aliptata |
| Sabda | Prakrita |
| Sparsha | Anushna Sheetha |
| Drik | Prakrita |
| Aakruti | Madhyama |

Table 8: Nidana Panchaka.

| | |
|-------------|--|
| Nidana | |
| -Ahara | Madhura, Snigdha Ahara like bakery items, junk foods, Sweets, Mamsa Sevana With More Fat Content |
| -Vihara | Avyayama, vishama asana |
| Poorvaroopa | Alasya, Ati Sweda, Shrama, Asya Madhura, Gala Talu Shosha, Keshha Nakhadi Vriddhi, Muhka Shosha |
| Roopa | Ati Mutra Pravrutti, Daurbalya, Bahu Bhuk , Shrama Shwasa, Ati Sweda |
| Upashaya | Nothing Significant. |
| Anupashaya | Santarpana Janya Ahara & Vihara |

SAMANYA SAMPRAPTHI

Due to Hetus (causative factors) there is vitiation of all Doshas and mainly of Bahudrava Shleshma increased with its fluidity. Vitiation of all Doshas and Kleda lead to Dhatwaagni Mandyata. It causes vitiation of Dushyas like Rasa, Rakta, Mamsa, Meda, Majja, Shukra (Except Asthi Dhatu) Ambu, Vasa, Lasika, Oja. Accumulation of Bahudrava Shleshma in Dushyas leads to Dhatu Shaithilya especially in Meda and Mamsa Dhatu. All these vitiated Doshas, Kleda and Dhatus get accumulated at Mutravaha Strotasa (Vankshna, Basti) giving rise to Prameha Vyadhi. Chakrapani comments that here 'Abaddha' (Loosely bound) should be considered for Meda, Mamsa, Vasa and Majja while 'Bahutva' (Excess in quantity) should be considered for rest of the Dushyas.

SAMPRAPTI GHATAKA

- Dosha: Tridosha
- Dushyas: Rasa, Rakta, Mamsa, Meda, Majja, Shukra, Oja, Vasa, Lasika, Ambu
- Srotas: Mutravaha, Medovaha, Udakavaha, Mamsavaha.
- Srotodushti Prakhara: Atipravritti, Vimarga gamana, Sanga.
- Udbhava Sthana: Amashaya.
- Vyakti Sthana: Mutra Marga.
- Roga Marga: Madhyama Marga.
- Agni: Jatharagni and Dhatwagni Mandya
- Swabhava: Chirkari.

VYADHI VINISCHAYA: Prameha {Type 2 Diabetes Mellitus}

CHIKITSA

| | |
|-----------------------|--|
| Deepana & Pachana | Chitrakadi Vati 1 tablet Three times a day half an hour before food with warm water |
| Shodhananga Snehapana | Snehapana with Varunadi Ghrita Day 1- 30ml Day 2- 70ml Day 3- 130ml Day 4- 180ml Day 5- 200ml |
| Vishrama kala | Day 1- Sarvanga Abhyanga with Ksheerabala taila followed by Bashpa Sweda Day 2- Kaphotkleshakara Ahara-Idli, curd rice, Dhoodpeda, Ksheera Payasa |
| Shodhana-Vamana Karma | With Madnaphala Yoga – 15 gm (Madanaphala Pippali Choorna: 5gm, Yasti Madhu Choorna: 3 gm, Vacha: 1 gm, Honey: 5 ml, Saindhava: 1gm) |
| Samsarjana krama | For 5 days |
| Shamanaoushadhi | Vasantha kusumakara rasa 2-0-2 After food Nisha Amalaki 2-0-2 After food Nisha kathakadi Kashaya 2tsf- 2tsf-2tsf with 2tsf water Before food Kathaka Kadhiraadi Kashaya 2tsf- 2tsf-2tsf with 2tsf water Before food |

Assessment

| Parameter | Before Treatment {5/3/2023} | After Treatment {1/4/2023} | Follow up {5/5/2023} |
|-----------|--------------------------------|-------------------------------|-------------------------|
| RBS | 300 mg /dl* | 200 mg/dl* | 100 mg/dl* |
| FBS | 279 mg /dl* | 125 mg/dl* | 115 mg/dl* |
| PPBS | 401 mg /dl* | 136 mg/ dl | 130 mg/ dl |
| FUS | 1 mg/ml* | Nil | Nil |
| PPUS | 1.4mg/ml* | Nil | Nil |
| HbA1C | 7.4 % | | 5.5% |

DISCUSSION

Diabetes mellitus (DM) comprises a group of metabolic disorder that share the common feature of inappropriately elevated blood glucose levels. Among two types, Type 2 DM is most common and mainly affecting people around the age group 40. Diabetes mellitus has already become a leading threat to public health globally with its increased incidence. In India over the past 3 decades, the burden of DM in terms of deaths and disabilities has reached more than double.

According to Ayurveda, Samprapthi of Prameha occurs due to Strotodusti mainly Mutravaha Strotas caused by vitiation of all doshas mainly Bahudrava Shleshma and it shows Prabhuta Avila Mutrata. Prameha is one among Astamahagada considered as Agrya among Anushangi Vyadhi {Chronic}. It is mentioned in Brihatrayis with well elaborated etiologies, prodromal symptoms, Lakshanas and complications. While considering Chikitsa of any Vyadhi we come across Nidanaparivarjana Chikitsa, Samprapthi Vighatana Chikitsa and Lakshanika Chikitsa etc. classifications. In the disease like Prameha, achieving the Vikara Vighata Bhava Abhavata is necessary i.e., Nidana Parivarjana and Samprapthi Vighatana are utmost important.

When we look into Samprapthi, Kapha Pradhana Tridosha along with Shareera Kleda, Meda and Mamsa are

predominantly vitiated leading to symptoms of Prabhoota Avila Moothrata. Samshodhana Karma plays important role in eliminating the vitiated doshas out of the body from its root there by leaving less chance for its reoccurrence.^[8] To breakdown the Samprapthi, Shodhana especially Vamana Karma is useful.

In the present study, the patient of Kapha Pitta Prakriti, we conducted classical Vamana. As part of Poorvakarma, Deepana Pachana was given with Chitrakadi Vati. It is helpful in increasing Jataragni, causes Amapachana and thereby prepares the body for Snehapana. Arohana Krama Shodhananga Snehapana in Madhyama Matra is given using Varunadi Gritha which is having drugs mainly acts as Kapha Medohara. This helps the Doshas undergo Vridhi, Vishyandhana there by helps in bringing Doshas from Kosta to Shaka. After proper Samyak Snigdha Lakshanas, patient was given two days of Vishramakala during which Abhyanga with Ksheerabala Taila and Bashpa Sweda was advised. Second day of Vishrama Kala patient was given with Kaphotkleshakara Ahara. Bahyasnehana and Swedana helps in liquefaction and disintegration of Dosha and brings them to Kosta. Kaphotkleshakara Ahara aids in smooth conduction of Vamana Karma. Vamana Karma was conducted in early morning 6 to 8 AM, Akanta Pana was given with Ksheera as it was palatable to patient and Madanaphala Yoga is given as Vamaka Dravya along

with Yastimadhu Phanta as Vamanopaga Dravya till Pittanta Darshana. There were 7 Vega and 3 Upavega with Uttama Shudhi and followed the Samsarjana Krama of 5 days by following the food articles mentioned in the Ayurvedic classics.

After Samsarjana it was found out that there was marked reduction in signs and symptoms in patients especially increased frequency of urination, fatigue, excessive hunger and after completion of Samsarjana Krama, previously increased FBS and PPBS came to normal range and maintained within normal limit for consecutive 3 months with Shamanoushadhis like Vasantha kusumakara rasa, Nishamalaki vati, Nishakathakadi Kashaya & Kathaka kadhiraadi Kashaya which are proven to be beneficial in treating the Prameha.

Pathya Ahara like Yava, Godhuma, Madhulika, Adaki, Kulattha, Mugdha, Masoora, Kapota Mamsa, Kukkuta Mamsa, Aja Mamsa, Amalaki, Jambu, Dadima, Shigru, Kushmanda, Patola, Koshataki, Karavellaka, Takra.

Pathya Vihara like Udwartana, Ushna jala Snana, Chankramana, Yoga Asanas like Ardha matsyendrasana, Paschimottanasana, Adhomukha Shwanasana, Sarvangasana, Bhujangasana, Dhanurasana, Vajrasana, Trikonasana, Surya Namaskara Abhyasa, Pranayama like Nadi shodhana, Bhastrika, Kapala Bhati, Bhramari was advised.

CONCLUSION

From the results of the current case, it can be inferred that an integrated approach inclusive of Shodhana, Shamana Aushadhi along with the right Pathya Ahara Vihara, Yoga & Pranayama practices and lifestyle choices, is the best way to control Type 2 Diabetes Mellitus according to Ayurveda. The comprehensive strategy of Ayurveda, which makes use of the Chikitsa Sutras mentioned in classics which will definitely pay off in terms of not only controlling blood sugar levels but also avoiding complications brought on by Type 2 Diabetes Mellitus.

LIST OF REFERENCES

1. Goyal R, Jialal I. Diabetes mellitus type 2. [Updated 2021 may 20]. In: StatPearls [internet]. Treasure Island (FL): StatPearls Publishing; 2021 Jan. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK51325/>.
2. Goyal R, Jialal I. Diabetes mellitus type 2. 2021 may 20. In: StatPearls [internet]. Treasure Island (FL): StatPearls Publishing; 2021 Jan. PMID: 30020625.
3. Olokoba AB, Obateru OA, Olokoba LB. Type 2 diabetes mellitus: a review of current trends. *Oman Med J.* 2012; 27(4): 269e73. <https://doi.org/10.5001/omj.2012.68>.
4. Sharma H, Chandola HM. Prameha in Ayurveda: correlation with obesity, metabolic syndrome, and diabetes mellitus. Part 2—management of Prameha. *J Alternative Compl Med.*, Jul, 2011; 17(7): 589e99.

- <https://doi.org/10.1089/acm.2010.0397>. Epub 2011 Jun 13. PMID: 21668351.
5. Sharma H, Chandola HM. Prameha in Ayurveda: correlation with obesity, metabolic syndrome, and diabetes mellitus. Part 1-etiology, classification, and pathogenesis. *J Alternative Compl Med.* Jun, 2011; 17(6): 491e6. <https://doi.org/10.1089/acm.2010.0396>. Erratum in: *J Altern Complement Med.*, Jul, 2011; 17(7): 661. PMID: 21649515.
 6. Brahmanand Tripathi Dr, editor. Hindi commentary of ashtanga hridaya of srimadvagbhata. 1st ed. Varanasi: Chaukhambha Sanskrit Sansthan, 2008; 133.
 7. Raveendran AV, Deshpandae A, Joshi SR. Therapeutic role of yoga in type 2 diabetes. *Endocrinol Metab (Seoul)*, Sept, 2018; 33(3): 307e17. <https://doi.org/10.3803/EnM.2018.33.3.307>. Epub 2018 Aug 14. PMID: 30112866.
 8. Acharya YT (ed.), Charaka Samhita of Agnivesha elaborated by Charaka and Dridhabala with Ayurveda deepika commentary by Sri Chakrapanidatta, Sutrasthana 16th chapter 21st verse, Varanasi: Choukamba Surbharati Prakashan, 2014, P97.