

A Case Study on the Management of Madhumeha (Type 2 Diabetes Mellitus)

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Abstract:- Diabetes mellitus, known as Madhumeha in Ayurveda, is indeed characterized by elevated blood glucose levels due to deficiencies in insulin production, action, or both. Ayurvedic texts provide detailed insights into its causes, progression, prognosis, complications, and management strategies. The holistic approach in Ayurveda considers dietary, lifestyle, environmental, and genetic factors as contributors to diabetes. Treatment modalities are personalized, taking into account the type and stage of the condition. It emphasizes a balance in lifestyle, diet, and natural remedies for managing diabetes effectively. The passage emphasizes the need for scientific validation of Ayurvedic dosage forms and compound formulations mentioned in classical references, particularly those widely used in clinical practice. Despite advancements in medical science, challenges persist in managing diabetes, prompting attention to unexplored areas of medical knowledge. Ayurveda is presented as offering safe and effective approaches for such conditions. Designing a relevant research model is highlighted as a key challenge to examine the safety and efficacy of Ayurvedic interventions while adhering to fundamental principles and a systems approach. The mention of a single case study suggests a focus on illustrating the application and outcomes of Ayurvedic methods in managing diabetes. It would be interesting to delve into the specifics of the case study and explore how Ayurveda played a role in treating Madhumeha (diabetes). The case report highlights a successful reversal of diabetes mellitus through Ayurvedic intervention, with a notable decrease in HbA1C from 13.1% to 7.6% within four months. While valuable as a case study, further research is needed to establish the broader effectiveness of Ayurveda in managing diabetes mellitus on a larger scale.

Keywords:- Case Study on Madhumeha, Type 2 Diabetes Mellitus, Ayurveda Lifestyle

I. INTRODUCTION

Diabetes mellitus as a metabolic disorder characterized by underutilized carbohydrate metabolism, leading to hyperglycemia. The mention of common symptoms like polyuria, polydipsia, and polyphagia provides clarity on the clinical presentation. Additionally, highlighting diabetes as a lifestyle disorder and its increasing prevalence in developing countries underscores the global health concern. The reference to complications such as nephropathy, neuropathy, and retinopathy emphasizes the severity of the condition. Clear differentiation between Type 1 and Type 2 diabetes,

with an emphasis on the higher prevalence of Type 2, contributes to a well-rounded understanding of the disease. Environmental, genetic, and behavioral risk factors in the onset of Type 2 Diabetes Mellitus (DM) provides a holistic perspective. The global impact of diabetes as the 5th leading cause of death, responsible for millions of deaths, emphasizes its significant public health implications.

Highlighting the role of glycated hemoglobin (HbA1c) as a standard investigation in diabetic patients adds a crucial diagnostic aspect to the discussion. The integration of large-scale studies supporting HbA1c as an index for diabetes mellitus strengthens the credibility of its use in contemporary medicine.

Referencing the ICMR-INDIAB national study provides a current snapshot of the diabetes scenario in India, underlining the urgent need for effective interventions. The mention of Ayurvedic texts featuring hypoglycemic herbomineral formulations introduces an alternative approach, suggesting potential avenues for research and treatment beyond conventional medicine. The consideration of Pathya-Apathya (compatible and incompatible diet and lifestyle) aligns with Ayurveda's holistic approach to health.

II. CASE REPORT

The detailed case presentation of the 42-year-old male patient on April 19, 2023, provides valuable clinical insights. The reported symptoms, including severe tiredness, unexplained weight loss, excessive sweating, body odor, increased urination with turbidity, excessive thirst, dryness of mouth and throat, sweet taste, burning sensation in hands and feet, night sweats, and disturbed sleep due to frequent nocturnal urination, point towards a complex clinical picture.

The patient's active sportsmanship and absence of familial history of diabetes are notable details. Normal appetite and bowel movements, along with no known diseases or medications, add to the overall clinical context.

This comprehensive case history lays the foundation for further investigation and potential treatment. It highlights the importance of exploring the underlying causes of the reported symptoms and tailoring an appropriate intervention plan. The clinical examination findings provide additional valuable information. The normal blood pressure and pulse rate, along with a weight of 70 kgs and a height of 168 cm, contribute to the overall assessment of the patient's physical health. A soft and non-tender abdomen on palpation suggests no acute abdominal issues. The coated

tongue is an indicator that can be considered in the context of Ayurvedic diagnosis.

The patient's pitta-kapha prakriti (constitution) with above-average samhanana (body built) and pramana (body proportion) aligns with the Ayurvedic framework. Details about dense hair, good appetite, and deep sleep provide insights into other aspects of the patient's overall well-being.

This holistic examination contributes to a more nuanced understanding of the patient's health, aiding in the formulation of an effective treatment plan, especially considering Ayurvedic principles.

III. TREATMENT PLAN

The provided information outlines the progression of the patient's chief complaints and Ayurvedic medications over different periods:

- 19/04/2023 to 06/05/2023:
 - Chief Complaints: Diabetes mellitus
 - FBS-232.2mg/dl
 - PPBS-306.7mg/dl
 - HBA1C-13.1%
 - Urine sugar- 3+
 - Ayurvedic Medicines: Diabraj Churna 5gm bd with warm water, Glucodus cap. 2bd, Insufine powder 5gm bd with warm water, Insufine cap. 2bd, all before meals.
- 07/05/2023 to 18/05/2023:
 - Chief Complaints: Diabetes Mellitus
 - FBS-150.9mg/dl
 - PPBS-185.6mg/dl
 - Ayurvedic Medicines: Diabraj Churna 5gm bd with warm water, Glucodus cap. 1 bd, Insufine powder 5gm bd with warm water, Insufine cap. 1 bd, all before meals.
- 19/05/2023 to 22/07/2023:
 - Chief Complaints: Diabetes mellitus
 - FBS-83.3mg/dl
 - PPBS-110.5mg/dl
 - HBA1C-7.6%
 - Urine sugar-Nil
 - Ayurvedic Medicines: Diabraj Churna 3gm bd with warm water, Insufine Churna 3gm with warm water, Glucodus cap. 1 bd, Insufine cap. 1 bd, all with warm water.

The progressive adjustment in Ayurvedic medication indicates a tailored approach, potentially reflecting the patient's response and the evolving nature of the condition. Monitoring the effectiveness of these interventions over time will be crucial in assessing the impact on the patient's diabetes mellitus.

IV. IMPROVEMENT

It appears that the individual started Ayurvedic treatment for diabetes on 22/07/2023, with initial high blood sugar levels. Subsequent follow-ups show a progressive improvement in FBS, PPBS, and HbA1c levels, with

resolved symptoms such as burning sensations in hands and feet. The last recorded values are FBS-83.3mg/dl, PPBS-110.5mg/dl, HbA1C-7.6%, and no sugar in urine as of the Fourth Follow Up.

V. FOLLOW UP AND RESULTS

The follow-up details indicate a positive response to treatment. The patient's symptoms, including tiredness, frequent urination, and sweating, have reduced. Blood sugar levels, specifically FBS and PPBS, show satisfactory reductions over follow-up visits. Advice on dietary modifications was given based on blood parameters, and no new medications were prescribed due to only marginal abnormalities. The patient's compliance with the prescribed medicines was good, and there were no reported complaints or adverse drug reactions during the third follow-up on 22/07/2023, with further improvement in symptoms and well-maintained blood glucose levels.

VI. DISCUSSIONS

The Ayurvedic perspective on prameha, considering it as a maharoga with an inherited pattern. The pathophysiology revolves around kapha dosha, medo dhatu, and mutra mala. The increase in dravatva of kapha leads to kleda accumulation, causing the loss of sthiratva in medo dhatu and, if untreated, progresses to an irreversible diseased state. Ayurvedic treatment aims to reduce kleda, prevent dhatu shaithilyam, and restore sthiratva.

Ahara (diet) and vihara (lifestyle) are crucial factors, with an emphasis on avoiding sweet, sour, and salty foods that increase kapha. Vyayama (exercise) is emphasized for maintaining sthiratva. Medical intervention focuses on increasing rookshatva to reduce kleda, utilizing medicines with tikta and kashaya rasa. This holistic approach addresses both physiological and lifestyle aspects in managing prameha.

VII. CONCLUSION

The case demonstrates a successful management of high blood glucose levels through Ayurvedic medicines and dietary modifications. Despite the initial HbA1C level of 13.1%, the patient showed significant improvement, reaching 7.6% within a span of four months. This outcome underscores the effectiveness of the holistic approach in Ayurveda for managing diabetes and achieving favorable clinical results.

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