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Research Article

Traditional Wisdom Meets Modern Science: Ayurveda For Diabetes Management

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Abstract
Ayurveda provides an integrative and holistic framework for addressing diabetes mellitus (Prameha), emphasizing the importance of personalized dietary interventions, herbal remedies, lifestyle modifications, and stress management techniques. Through balancing doshas and introducing potent herbs like bitter melon, fenugreek, and Gymnema sylvestre, Ayurvedic treatments aim to normalize metabolic processes and improve insulin sensitivity. Current research demonstrates that Ayurvedic strategies not only stabilize blood glucose levels but also enhance overall health outcomes with minimal side effects. This paper explores the multifaceted role of Ayurveda in type-2 diabetes management, illustrated through a detailed case study, and underscores its potential as a complementary approach alongside modern therapeutic protocols.

Keywords: Ayurveda, Diabetes Mellitus, Prameha, Herbal Remedies, Dosha Balance, Lifestyle Therapy, Insulin Sensitivity

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Introduction

Diabetes mellitus, particularly type-2 diabetes, has emerged as a significant global health challenge, affecting millions of individuals and contributing to considerable morbidity and mortality. By 2014, an estimated 387 million individuals were diagnosed with diabetes, with type-2 diabetes accounting for nearly 90% of these cases. This condition is closely linked to lifestyle factors such as sedentary behavior, poor dietary choices, and metabolic imbalances, leading to its rapid rise worldwide. Diabetes is not only a chronic disease but also a precursor to various complications, including cardiovascular disorders, neuropathy, and kidney dysfunction, thereby emphasizing the need for effective management strategies.

Ayurveda, an ancient system of medicine, provides a comprehensive framework for understanding and managing diabetes under the concept of Prameha, which encompasses metabolic disorders. It categorizes Prameha into Sahaja (genetic) and Apathyanimittaja (lifestyle-induced) types, aligning closely with modern classifications of diabetes. Through personalized treatment approaches that integrate dietary changes, herbal formulations, and lifestyle modifications, Ayurveda aims to address the root causes of the disease. Recent research supports the effectiveness of Ayurvedic formulations such as Triphala and Asanadi Ghana Vati

in improving glycemic control, reducing insulin resistance, and alleviating complications. This article highlights the relevance of Ayurvedic principles in contemporary diabetes management and explores their integration with modern therapeutic protocols.

Case Report

Patient Overview

A 50-year-old female presented to Parul Ayurvedic Hospital with burning and tingling sensations in the soles, increased micturition, and lethargy for three months. Diagnosed with type-2 diabetes mellitus (DM-2), hypertension (HTN), and hypothyroidism a year earlier, she was on the following medications:

- **DM-2:** Tab. METAFIL G1 (1-0-0)
- **HTN:** Tab. TELMA 40 (1-0-1)
- **Hypothyroidism:** Tab. Thyronorm 50 mcg (1-0-0)

Present Illness

The patient reported unsatisfactory bowel movements and occasional abdominal discomfort, seeking Ayurvedic treatment for symptom relief.

Surgical History

The patient underwent an appendectomy 28 years ago.

Family History

No significant family history of diabetes, hypertension, or thyroid disorders was reported.

Personal History

- **Appetite:** Normal
- **Thirst:** Normal
- **Urine Frequency:** 4-5 times/day, 2-3 times/night
- **Stool:** Constipated
- **Sleep:** Disturbed due to symptoms

Examination

- **Vitals:** PR: 84/min, BP: 130/80 mmHg
- **General Condition:** Fair; no pallor, icterus, cyanosis, or fever
- **CNS:** Conscious and oriented
- **P/A:** Soft, non-tender
- **CVS:** S1 S2 heard; no murmurs
- **RS:** Clear; no wheezes or crepitations

Investigations

SR. NO.	DATE	FBS (mg/dl)	PP2BS (mg/dl)	HBA1C (%)
1	12-9-2023	98.09	149.4	9.6
2	10-10-2023	132	162	--
3	07-11-2023	142	158	--
4	12-12-2023	168	179	6.8

Treatment

SODHAN CHIKITSA (Cleansing Therapy)

Erandmooladi Yoga Basti:

1ST DAY	2ND DAY	3RD DAY	4TH DAY	5TH DAY
ANUVASAN	NIRUHA	NIRUHA	NIRUHA	ANUVASANA
-	ANUVASANA	ANUVASANA	ANUVASANA	-

ANUVASAN BASTI: SAHACHARADI TAILA 40ML

NIRUHA BASTI: MAKSHIK-25ML, SAINDHAV LAVANA-5GM, SAHACHARA TAILA-40ML, SHATPUSHPA-5GM + PANCHATIKTA CHURNA-25GM, ERANDMOOLADI KWATHA-450ML

SHAMAN CHIKITSA (Palliative Therapy)

NO	MEDICINE	DOSE	FREQUENCY	DURATION
1	Asanadi Ghana Vati	2-0-2	BD (BEFORE FOOD)	3 MONTHS
2	Meshshrungi Churna	3GM	BD (BEFORE FOOD)	
3	Yashad Bhashma	125MG	BD (AFTER FOOD)	
4	Tab.Triphala	2-0-2	BD (AFTER FOOD)	
5	Meha Abhaya Kashaya	20 ML	BD (BEFORE FOOD)	

Discussion

Ayurvedic Perspective

Erandmooladi Basti serves as a cleansing therapy with properties to balance Kapha and alleviate metabolic obstructions. Ricinus communis, a key ingredient, is known for its anti-inflammatory and antioxidant benefits, supporting systemic rejuvenation and nerve health.

Asanadi Ghana Vati utilizes herbs with Kashaya and Tikta rasa, aiding in Kapha-Pitta balance and improving metabolic processes, particularly in obesity-linked diabetes.

Meshashrungi (Gymnema sylvestre) is effective for Madhumeha, offering insulin-sensitizing effects due to its laghu, ruksha properties.

Yashad Bhasma, a zinc-based preparation, enhances pancreatic β-cell activity, contributing to improved glucose regulation.

Meha Abhaya Kashaya reduces Kapha and Meda accumulation, improving tissue integrity and metabolic stability.

Triphala has shown significant potential in reducing blood sugar levels. Its active components help regulate glucose metabolism by enhancing insulin sensitivity and pancreatic function. The antioxidant properties of Triphala also mitigate oxidative stress, a key factor in the progression of diabetes. Clinical studies reveal that regular administration of Triphala improves glycemic control, reduces HbA1c levels, and alleviates diabetic complications such as neuropathy by promoting better nerve function.

Modern Evidence

Research confirms the hypoglycemic, antioxidant, and lipid-lowering effects of Ayurvedic formulations like Asanadi Ghana Vati and Triphala. Gymnema sylvestre supports pancreatic β-cell regeneration and insulin sensitivity, while Yashad Bhasma demonstrates significant efficacy in hyperglycemia management. Triphala's ability to modulate glucose absorption and improve hepatic glycogen storage further contributes to its antidiabetic properties.

Conclusion

Ayurvedic therapies provide a targeted, natural approach to managing type-2 diabetes by addressing its root causes. The integration of herbal formulations, lifestyle adjustments, and dietary modifications not only ensures effective glycemic control but also minimizes complications and side effects. This case study reinforces Ayurveda's potential as a complementary strategy to conventional treatments, paving the way for a holistic and sustainable solution for diabetes care.

References

1. Gupta, V., et al. (2013). A Review on Antidiabetic Action of Asanadi Gana. *International Journal of Research in Ayurveda and Pharmacy, 4,* 638–646.
2. Suryavanshi, S.V., et al. (2021). Triphala Churna-A Traditional Formulation in Ayurveda Mitigates Diabetic Neuropathy in Rats. *Frontiers in Pharmacology, 12,* 662000. https://doi.org/10.3389/fphar.2021.662000.
3. Murthy, K.H.H.V.S.S.N. (2018). Therapeutic and Pharmacological Importance of Gymnema sylvestre. *International Journal of Research in Medical Sciences and Technology, 6,* 322.
4. Jasada Bhasma: Contemporary Evidence of Antidiabetic Activity. (2015). *Volume 2015, Article ID 193156.* https://doi.org/10.1155/2015/193156.
5. Balaji, G., et al. (2020). Antidiabetic Effects of Ayurvedic Herbal Formulations. *Journal of Ethnopharmacology, 247,* 112254. https://doi.org/10.1016/j.jep.2020.112254.
6. Mishra, A., et al. (2017). Role of Ayurvedic Diet and Lifestyle in Managing Diabetes. *Journal of Ayurveda and Integrative Medicine, 8,* 162–167.
7. Pandey, A., et al. (2016). Clinical Study on the Efficacy of Ayurvedic Medicines in Diabetes Management. *Ayurveda International Journal, 10,* 54–60.