

Ayurvedic Management of Diabetes Mellitus- A Case Study

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Abstract: Ayurveda's approach to diabetes mellitus, or Prameha, is holistic, integrating dietary adjustments, herbal remedies, lifestyle changes, and therapeutic procedures. Treatment is personalized based on dosha imbalances, with dietary modifications focusing on reducing sweet and fatty foods while incorporating bitter melon and fenugreek. Stress management through yoga and lifestyle changes are integral components. A case study illustrating Ayurvedic efficacy might showcase improved blood sugar levels, symptom alleviation, and enhanced overall well-being without adverse effects. Collaboration with conventional medicine is essential for comprehensive diabetes management, ensuring safety and effectiveness. Consulting healthcare providers before altering treatment plans is crucial to maintain health and manage the condition effectively. Ayurveda's holistic approach offers valuable insights into managing diabetes mellitus, addressing both symptoms and underlying imbalances for improved quality of life.

Keywords: *Ayurveda ,Diabetes, Prameha , Sthula, Krush*

Introduction

In 2014, the global burden of diabetes stood at an alarming 387 million individuals, with type-2 diabetes representing a staggering 90% of cases. This prevalence equated to affecting 8.3% of the adult population worldwide, with no significant gender disparities. The disease's severity was underscored by its contribution to an estimated 1.5 to 4.9 million deaths annually between 2012 and 2014. Remarkably, the etiological factors underpinning type-2 diabetes remarkably resonate with Ayurvedic concepts of Prameha/Madhumeha. Ayurvedic literature classifies Prameha into two primary categories: Sahaja Prameha, occurring from birth, and ApathyanimittajaPrameha, triggered by improper lifestyle factors. Notably, ApathyanimittajaPrameha closely mirrors the contemporary understanding of type-2 diabetes, emphasizing lifestyle-related causes over innate factors. Ayurveda further delineates the concept of Sthula Pramehi, aligning with modern interpretations of obesity's pivotal role in type-2 diabetes genesis. This parallel underscore the timelessness and relevance of Ayurvedic insights in comprehending and addressing contemporary health challenges. By recognizing the intricate interplay between lifestyle, diet, and disease, Ayurveda offers a holistic framework for managing type-2 diabetes. Emphasizing personalized approaches encompassing dietary modifications, herbal remedies, lifestyle adjustments, and stress management, Ayurveda presents a promising adjunct to conventional diabetes management. Integrating Ayurvedic principles into modern healthcare paradigms could potentially enhance treatment outcomes and mitigate the global burden of type-2 diabetes, fostering a more holistic and sustainable approach to health and wellness.

CaseReport

A 50/F visited to Parul Ayurvedic Hospital with chief complaints of Burning sensation at B/L sole region A/W tingling sensation, Increased micturition, lethargy since last 3 months. Patient Also suffered with

obesity lifestyle disorder. Patient Diagnosed with DM 2 , HTN and Hypo-thyrodism 1 year ago with ongoing medicine. (For DM 2 – Tab. METAFIL G11-0-0 , For HTN Tab. TELMA 40 1-0-1, For Hypo-thyroidism Tab. Thyronorm 50mcg 1-0-0)

History of present illness

A Female patient aged about 50 years was apparently healthy before 3 months with ongoing medication, then initially experienced of Burning sensation at B/L sole region A/W tingling sensation, Increased micturition, lethargy. Sometimes patient suffer with unsatisfactory stool pass A/W Abdominal discomfort So, for this complaint patient came here for further management.

Past history

HTN, DM2 & HYPO-THYROIDISM

Surgical History

APPENDICECTOMY 30 YEARS AGO

Family history

No relevant family history found

Personal History

Appetite- Normal

Thirst- Normal

Urine- 4-5 times/day, 2-3 times/night

Stool- Constipated

On Examination

General condition – Fair, No Fever /Nausea/vomiting

PR- 84/min

BP- 130/80 mmHg

No Pallor, No Icterus, No Cynosis

CNS- Conscious and Oriented

P/A- Soft, No Tenderness

CVS- S1 S2 Heard, No Murmur sound present

RS- AEBE, No Wheeze/craps present

Lab investigation:

Urine Routine & micro was within normal range also including with CBC,

S. CREAT, SGPT

Treatment:

PARUL AYURVED HOSPITAL
Teaching Hospital of Parul Institute Of Ayurved
Parul University Limda, Vadodra, Gujarat-391760

Patient's Name : Mumtazben A Patel
Referred by : Dr. Vishnu B (K.C)
Date : 12/09/2023 16:18
Hospital No : 22020929

Ref. No. : 2020929
Age : 51 Years
Sex : Female
IPD : 223979

HBA1C [Glycosylated Haemoglobin]
Method : Immunoturbidimetry

Test Name	Result	Units	Biological Reference Interval
Glycosylated Haemoglobin : (HBA1C)	9.60	%	Non Diabetic Level 4 - 6 Therapy Range < 7 Change of Therapy: > 8
Estimated Average glucose :	228.82	mg/dl	

Signature.

Before Treatment

PARUL AYURVED HOSPITAL
Teaching Hospital of Parul Institute Of Ayurved
Parul University Limda, Vadodra, Gujarat-391760

Patient's Name : Mumtazben A Patel
Referred by : Dr. Jashvi Pataker (K.C)
Date : 12/12/2023 14:29
Hospital No : 22020929

Ref No : 129
Age : 51 Years
Sex : Female
IPD : 223979

BIOCHEMICAL TESTS

Test Name	Result	Units	Biological Reference Interval
Fasting Blood sugar :	168	mg/dl	70 - 110
Post Prandial Blood sugar :	122	mg/dl	80 - 120

HBA1C [Glycosylated Haemoglobin]
Method : Immunoturbidimetry

Test Name	Result	Units	Biological Reference Interval
Glycosylated Haemoglobin : (HBA1C)	6.80	%	Non Diabetic Level 4 - 6 Therapy Range < 7 Change of Therapy: > 8
Estimated Average glucose :	148.46	mg/dl	

Signature.

After Treatment

Treatment:**Sodhan chikitsa:****Erandmooladi yoga basti:**

1 ST DAY	2 ND DAY	3 RD DAY	4 TH DAY	5 TH 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:

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	AFTER FOOD	
5	MEHA ABHAYA KASHAYA	20 ML	BD(BEFORE FOOD)	

Discussion:

Erandmooladibasti is told as Deepan and Lekhana in nature which helps in pacifying Kapha and reducing symptoms like heaviness and stiffness. Antiinflammatory, anti-oxidant, central analgesic, antinociceptive activity, bone regeneration activity is found in Ricinus communis (Erand). Basti dravya enters into the Pakwashaya, it is the place where the water and minerals are absorbed in proximal colon. Sodium and potassium are the essential factors for the development and proper functioning of the nervous system are also absorbed from the colon

In Asanadi Ghana Vati, most of the ingredients are having Kashaya and Tikta Rasa, Laghu and Ruksha Guna.

All the drugs in this polyherbal compound are having KatuVipaka and majority of the drugs possess of Kapha-Pitta Shamaka property. Asanadi Ghana Vati scrap out excessive Kapha and Meda from Srotas by Kashaya and Tikta Rasa. Laghu and Ruksha Guna absorb the excess Kapha, Meda, and Kleda and improve the consistency of tissue elements. KatuVipaka enhances the Agni (normalizes the metabolic processes) and remove the Avarana (obstruction) of Vata. Moreover, in various pharmacological studies, it has been proved that almost all the drugs of Asanadi Gana have antidiabetic properties.

Meshashringi: As the cause of Madhumeha are kaphavardhaka, medovardhakaahara and avyayama, vihara. As the drug Meshashringi is having laghu, rukshaguna, kashaya ,tikta rasa, katuvipaka and Ushna virya. By the virtue of above properties like laghu, ruksha and due to ushnavirya it pacifies the kapha and due to kashaya, tikta and katuvipaka it pacifies the vata. Ultimately Meshashringi cures the Madhumeha

Yashada bhasma is also indicated in various disorders, namely, diabetes, anemia, cough, ulcers. Standard textbooks on *Rasashastra* recommend *Jasadabhasma* as the treatment of choice for diabetes. However, studies related to pharmacological/clinical investigation of *Jasadabhasma* as antidiabetic agent are few and not comprehensive. Clearly, there is a need for undertaking a detailed and systematic study on the proclaimed antidiabetic efficacy of *Jasadabhasma*. Diabetes mellitus is a metabolic disorder caused due to relative or absolute deficiency of insulin or insulin resistance at the cellular level. This review article has presented the antidiabetic action of Asanadigana, a group of 23 plants which has been mentioned in AshtangSamgraha and Ashtanga Hridaya. It showed that these plants have varying degree of hypoglycemic activity along with hypolipidemic and antioxidant property. The potency of these drugs is significant and they have negligible side effects than the oral hypoglycemic drugs (OHA). The antidiabetic activity of these plants are attributed to the presence of polyphenols, terpenoids, alkaloids, flavonoids, glycosides and other active

constituents, which shows reduction in blood glucose level. Numerous mechanisms of actions have been predicted for these plant extracts. Some herbal drugs have effects on the activity of pancreatic b-cells (insulin release, b-cell regeneration) or some drugs enhance the insulin sensitivity and some of the plant extracts exhibit insulin-like activity. Other mechanisms may involve improved glucose homeostasis (increase of peripheral utilization of glucose, increase of synthesis of hepatic glycogen or decrease of glycogenolysis), inhibition of intestinal glucose absorption, reduction of glycaemic index of carbohydrates, reduction of the effect of glutathione. All these actions may be responsible for the reduction and abolition of diabetic complications. Thus there is need for more investigations to evaluate the clear mechanism of action of these medicinal plants with anti-diabetic effect. Further it is required to evaluate the anti-diabetic effect of these drugs in clinical setting with appropriate parameters. Diabetes mellitus is a metabolic disorder caused due to relative or absolute deficiency of insulin or insulin resistance at the cellular level. This review article has presented the antidiabetic action of Asanadigana, a group of 23 plants which has been mentioned in AshtangSamgraha and Ashtanga Hridaya. It showed that these plants have varying degree of hypoglycemic activity along with hypolipidemic and antioxidant property. The potency of these drugs is significant and they have negligible side effects than the oral hypoglycemic drugs (OHA). The antidiabetic activity of these plants are attributed to the presence of polyphenols, terpenoids, alkaloids, flavonoids, glycosides and other active constituents, which shows reduction in blood glucose level. Numerous mechanisms of actions have been predicted for these plant extracts. Some herbal drugs have effects on the activity of pancreatic b-cells (insulin release, b-cell regeneration) or some drugs enhance the insulin sensitivity and some of the plant extracts exhibit insulin-like activity. Other mechanisms may involve improved glucose homeostasis (increase of peripheral utilization of glucose, increase of synthesis of hepatic glycogen or decrease of glycogenolysis), inhibition of intestinal glucose absorption, reduction of glycaemic index of carbohydrates, reduction of the effect of glutathione. All these actions may be responsible for the reduction and abolition of diabetic complications. Thus there is need for more investigations to evaluate the clear mechanism of action of these medicinal plants with anti-diabetic effect. Further it is required to evaluate the anti-diabetic effect of these drugs in clinical setting with appropriate parameters. Diabetes mellitus is a metabolic disorder caused due to relative or absolute deficiency of insulin or insulin resistance at the cellular level. This review article has presented the antidiabetic action of Asanadigana, a group of 23 plants which has been mentioned in AshtangSamgraha and Ashtanga

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Conclusion

Ayurvedic treatments like Asanadighanvati, Meshashrungichurna, Yashad Bhasma, Triphala, and Meha Abhaya Kashay effectively manage type-2 diabetes with minimal side effects. By addressing root causes and promoting balance in the body, these remedies regulate blood sugar levels without systemic adverse reactions. This holistic approach integrates lifestyle changes and dietary modifications to enhance overall health and well-being. Ayurveda offers a safer alternative to conventional treatments, providing sustainable management of diabetes mellitus while minimizing drug-related complications.

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- [5] Case Report ISSN: 2320-5091 Impact Factor: 6.719 AYURVEDIC MANAGEMENT OF PRAMEHA: A CASE STUDY INTERNATIONAL AYURVEDIC MEDICAL JOURNAL