

# Ancient South Asian Treatments for *Diabetes mellitus*

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## Introduction

By 2025, diabetes prevalence in India, China, and the USA will increase by 195%, 134%, 58% respectively from 1995. This means 57.2, 37.6, and 21.9 million people in each country.

Ayurvedic and Chinese antidiabetic plants when administered according to traditional practices will decrease symptoms associated with *Diabetes mellitus*.

I have researched and documented three classical Ayurvedic and three non-classical formulations to treat *Diabetes mellitus* in South Asia.

Ayurveda is an ancient healing tradition developed in the South Asian subcontinent. Classical Sanskrit texts describe "prameha" (an overproduction of urine) that includes over 20 subtypes that are divided into three categories: kaphaja, pittaja, or vataja prameha.

"Madhumeha", a subtype of vataja, is a condition where one passes a large quantity of sweet urine. Over the centuries Ayurveda and individual practitioners developed numerous formulations to treat madhumeha.

## Results

Based on the case studies, I compiled a detailed list of all Ayurvedic medicines prescribed. The Ayurvedic physicians regularly prescribed three classical Ayurvedic formulations: Chandraprabhavati, Dhatri haridra, and Tejapatra pushkarmul.

Chandraprabhavati, caused a decrease in blood glucose levels in 6/7 cases in a small retrospective study.

In addition the physicians regularly prescribed three non-classical, local plant/plant formulations: Diabetes vati, Mamejwa, Saptarangadi.

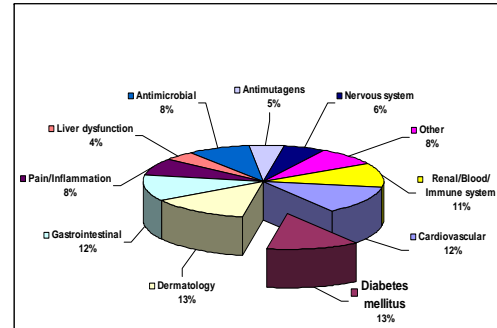


Fig. 1. Based on 166 Ayurvedic Medicinal Plants, 13% showed an antidiabetic effect [Khan and Balick, 2001].

## Conclusions

•Six plant/plant formulations identified

–Three classical Ayurvedic formulations identified

•Chandraprabhavati showed blood glucose lowering effect in a small sample when administered according to classical Ayurvedic theory

–Three local plant/plant formulations identified

## Future Research

•Conduct a larger clinical study at SPARC (Aug-Sept 2003)

–Assess classical Ayurvedic plant/plant formulations (1-3)

–Blood glucose levels, 24-hour food recall

–Develop and implement a parallel questionnaire to evaluate patients from an Ayurvedic perspective

–Laboratory test on blood glucose lowering effect of formulations

•Compare to TCM, Nanjing Botanical Garden (May-Sept 2004)

## Ayurveda Basics

### Tridosha Theory: Vata, Pitta, Kapha

VATA	air/space
PITTA	fire/water
KAPHA	water/earth
SAMA	equal proportion of all three doshas
Vata-Pitta	air/space (fire/water)
Vata-Kapha	air/space (water/earth)
Pitta-Kapha	fire/water (water/earth)
Pitta-Vata	fire/water (air/space)
Kapha-Vata	water/earth (air/space)
Kapha-Pitta	water/earth (fire/water)

Fig. 2. Based on Maya Tiwari's *A Life of Balance*

## Materials and methods

Under the guidance of two Ayurvedic physicians, I conducted clinical research at Gujarat Ayurved University & Shri Gulabkunbera Ayurvedic Society from December 2001-February 2002 in Jamnagar, Gujarat.

•13 prospective case studies

•10 retrospective case studies

- comparative ethnobotany
- clinical data on prescribed Ayurvedic, allopathic medicines, blood glucose levels
- clinical nutritional data-a 24-hour food recall.

<i>Aconitum heterophyllum</i>	Ativisha
<i>Acorus calamus</i>	Vaca
<i>Baliospermum montanum</i>	Danti
<i>Bambusa arundinacea</i>	Vansalochana
<i>Berberis aristata</i>	Daru haridra
<i>Cedrus deodar</i>	Devadaru
<i>Cicer arietinum</i>	Chanaka
<i>Cinnamomum camphora</i>	Karpura
<i>Cinnamomum tamal</i>	Tamalapatra/Tejapatra
<i>Cinnamomum zeylanicum</i>	Tvak
<i>Commiphora mukul</i>	Guggulu
<i>Coriandrum sativum</i>	Dhanyak
<i>Curcuma longa</i>	Haridra
<i>Cyperus rotundus</i>	Musta
<i>Elettaria cardemomum</i>	Ela
<i>Embelia ribes</i>	Vidanga
<i>Embolia officinalis</i>	Amlaki
<i>Hemidesmus indicus</i>	Sariva
<i>Ipomoea turpenthum</i>	Trivrit
<i>Piper chaba</i>	Cavya
<i>Piper longum</i> and root	Pippali/Pippali moola
<i>Piper nigrum</i> and root	Marichi/Marichi moola
<i>Plumbago zeylanica</i>	Citrak
<i>Scindapsus officinalis</i>	Gaja pippali
Shilajatu	Shilajatu
<i>Swertia chirata</i>	Kiratatika/Bhunimba
<i>Terminalia bellerica</i>	Bibhitaka
<i>Terminalia chebula</i>	Haritaki
<i>Tinospora cordifolia</i>	Guduci
<i>Zingiber officinale</i>	Sunthi

Table I. Chandraprabhavati (plant ingredients based on Athavale's, *Prameha and Madumeha* and *Sarangadhara Samita*)

## Literature

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(Please see handout of medical references).

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## For further information

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Refer to: <http://www.nybg.org/bsci/res/resproj.html> for a PDF of "Therapeutics Plants of Ayurveda" by Khan, S. and Balick, M. 2001

Gujarat Ayurved University, Jamnagar, Gujarat ([www.ayurveduniversity.com/uni.htm](http://www.ayurveduniversity.com/uni.htm))

Foundation for the Revitalisation of Local Health Traditions, Bangalore, Karnataka ([www.frlht-india.org](http://www.frlht-india.org))

Bhavan's Swami Prakashananda Ayurveda Research Center, Bombay, Maharashtra ([www.bhavans.info/otherdepartments.html](http://www.bhavans.info/otherdepartments.html))