

# NATIONAL AYUSH MISSION KERALA

## സ്വാസ്ഥി SWASTHYA NEWS LETTER **FEBRUARY-2024**











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## diabetes **The Silent Killer**



We are living in the era of technology and genetic engineering. The virtues of technology are reflected in every aspect of our life. Domestic work, travelling, communication – everything is made easier by this boom of technology. It has given us a lot of comfort. But the other side of the coin is that we have turned lazy and absolutely inactive, physically. We will not walk at least one kilometer a day, instead catch a vehicle. We will not climb steps, but use an elevator. Our taste buds prefer fried and sweetened dishes.

The changed life style has also changed the pattern of disease prevalence in our society. More and more persons are found to have obesity, diabetes, hypertension and heart diseases. These diseases, which are grouped as life style disorders, inflict a big financial burden to our families. In India, the number of diagnosed diabetic persons was around 19.3 million in 1995, and is estimated to be around 70 million in 2025 earning us the name the diabetic capital of the world.

#### Pathophysiology

Diabetes mellitus comprises a group of common metabolic disorders that are characterized by the feature hyperglycemia i.e. increased blood glucose level. Energy needed for performing all the body activities is released mainly from the glucose contained in our food. This glucose is carried through blood to different parts, making it available to trillions of cells that make up our body. Presence of the hormone insulin, secreted by pancreas, is mandatory for the entry of glucose molecules to any of our body cells. Insulin acts as the key to open the doors of our cells for the entry of glucose molecules.

Blood glucose level elevates, when the production of insulin is reduced due to genetic or environmental factors or when body cells do not respond to the action of insulin (insulin resistance). The increased number of glucose molecules in the blood absorbs water from the cells resulting in increased urine production (polyuria) urination at night (nocturia) and increased thirst (poly dypsia). Even if the diabetic patients take increased quantity of food, body cells are deprived of enough glucose. Hence to attain energy, cells utilise protein and fat deposits in the body, resulting in weight loss, fatigue and subsequent emaciation.

#### Classification

Different types of diabetes are caused by complex interaction of genetics, environmental factors and life style choices. The metabolic dysregulation associated with DM causes secondary pathophysiologic changes in multiple organ systems like kidneys, eyes etc. The two broad categories of DM are designated as Type I and Type II. Type IA DM results from autoimmune beta cell destruction which usually leads to insulin deficiency . Type IB DM is also characterised by insulin deficiency as well as tendency to develop ketosis. Type II DM is poly genic and multifactorial. It is characterized by 3 pathophysiologic abnormalities: impaired insulin secretion, peripheral insulin resistance and excessive glucose production by liver.

Insulin resistance is caused by the decreased ability of insulin to act effectively on peripheral target tissues especially muscle and liver. Resistance to the action of insulin impairs glucose utilisation by insulin sensitive tissues and increased glucose output by liver both effects contributing to the hyper glycemia of diabetes. Increased glucose output by liver predominately accounts for increased fasting blood sugar (FBS) levels whereas decreased peripheral glucose usage results in elevated post prandial blood sugar (PPBS). The third main form, gestational diabetes occurs when pregnant women without a previous diagnosis of diabetes develop a high blood glucose level. It may proceed to development of Type II DM.

Maturity onset diabetes of the young (MODY) is a sub type of DM characterized by autosomal dominant inheritance, early onset of hyperglycemia and impairment in insulin secretion. Latent Auto immune Diabetes of Adults (LADA) is a condition in which Type I DM develops in adults.

Other forms of DM include congenital diabetes due to genetic defects of insulin secretion ,cystic fibrosis created diabetes, steroid diabetes induced by high dose of glucose corticoids & several forms of mono genic diabetes.

#### Diagnosis

The revised criteria for the diagnosis of DM emphasis fasting blood sugar (FBS) as the most reliable and convenient test for diagnosing DM in asymptomatic individuals FBS >126mg /dL warrants the diagnosis of DM.A random plasma glucose concentration > or = 200mg/dL accompanied by classic symptoms of DM (polyurea, polydypsia, weight loss) is sufficient for the diagnosis of DM.

In the blood, glucose molecule is sticked to the protein hemoglobin of Red Blood Cells .As the blood glucose level , more hemoglobin will be coated with glucose. The test HbA1C measures the percentages of RBCs that have glucose coated hemoglobin. Diabetes can be diagnosed with an HbA1C 6.5% or more.

#### **Pre diabetes**

When the blood sugar level is higher than it should be, but not high enough to diagnose diabetes, it is considered to be a pre diabetes stage.

Blood sugar values in pre diabetes stage is as follows:

FBS - between 100-125 mg/DI

PPBS - between 140-199 mg/DI

HbA1C - between 5.7-6.4 %

In India at least 136 million people are considered to be in pre diabetes stage. Identifying the disease at the pre diabetes stage itself helps to prevent the progress of the disease to a remarkable extent.

### Ayurvedic management of Diabetes mellitus

Type2 DM can be managed well with various ayurvedic formulations.

#### Kashayas or thoyapakas

- Nishakathakadi
- Kathakakhadiradi
- Aragwadadi
- Varanadi
- Dasamoolam

#### Choornas

- Triphala
- Yashti
- Guloochi
- Dhatri –Nisha
- Asana
- Aswagandha

#### Gulika

- Triphala
- Neeruryadi
- Chandra prabha
- Shiva gulika



#### **Rasa preparations**

- Vasantha kusumakara rasam
- Shilajathu bhasma
- Arishta/Asava
- Ayaskrithi
- Lohasavam

#### Gritham

- Dhanwantharam
- Varanadi

#### Thailam (Internal)

- Dhanwantharam Sevyam
- Karpasasthyadi thailam
- Dhanwantharam(21 avarthi)
- Thrivrit sneham

#### Thailam (external)

- Dhanwantharam
- Karpasasthyadi thailam
- Pinda thailam

#### Panchakarma and related procedure

- Udwarthanam
- Rooksha swedam
- Patra potale sweda

- Sneha panam
- Virechanam
- Nasyam
- Rooksha vasthi
- Rajayapana vasthi etc.

The above mentioned ayurvedic aspects help very well to control the symptomology of DM and limit the complications to a remarkable extent. Following a healthy life style is crucial in the prevention and management of diabetes mellitus.

## INTERVENTION IN PREDIABETES & DIABETES MANAGEMENT

DR.SALMAN SALEEM B.A.M.S



Ayurveda offers a comprehensive approach to managing prediabetes and diabetes by addressing the underlying imbalances in the body and promoting well-being. Dating back thousands of years, Ayurveda offers a comprehensive understanding of diabetes, termed as "Madhumeha" in classical texts.However, it is important for individuals with prediabetes to work collaboratively with qualified Ayurvedic practitioners and healthcare providers to develop a personalised treatment plan.

### Some of the key challenges faced by diabetic patients include:

#### **Blood Glucose Management**

Achieving and maintaining target blood glucose levels can be challenging due to factors such as fluctuating insulin sensitivity, dietary choices, physical activity levels, and stress. Balancing blood glucose levels throughout the day, including postprandial spikes and nocturnal fluctuations, requires constant monitoring and adjustment of medication or insulin doses.

#### **Diet & Nutrition**

Adhering to a healthy diet that promotes stable blood glucose levels while meeting nutritional needs can be challenging for diabetic patients. Managing portion sizes, carbohydrate intake, and food choices while balancing cultural preferences and social situations can pose difficulties.

#### **Physical Activity**

Incorporating regular physical activity into daily routines is essential for managing diabetes, but many patients face barriers such as time constraints, physical limitations, or lack of motivation. Balancing exercise intensity and duration to avoid hypoglycemia or hyperglycemia can be challenging, especially for individuals on insulin or other medications

#### **Medication Adherence**

Strict adherence to medication regimens, including insulin injections, oral medications, and other adjunctive therapies, is crucial for controlling blood glucose levels and preventing complications. However, factors such as forgetfulness, medication side effects, cost concerns, and misconceptions about treatment can lead to non-adherence among diabetic patients.

#### **Psychosocial Factors**

Diabetes management can impact mental health, leading to stress, anxiety, depression, and diabetes-related distress. Coping with the emotional burden of living with a chronic condition, fear of complications, social stigma, and the need for constant self-care can affect psychological well-being.

#### **Complications and Comorbidities**

Diabetes increases the risk of developing various complications and comorbidities, including cardiovascular disease, neuropathy, retinopathy, nephropathy, and foot ulcers. Managing these complications requires ongoing medical care, lifestyle modifications, and adherence to treatment regimens, adding to the burden of diabetes management.

#### **Access to Healthcare**

Access to comprehensive diabetes care, including medical professionals, diabetes education programs, medications, and monitoring supplies, can be limited for some patients due to factors such as geographic location, financial constraints, or lack of healthcare infrastructure.

#### **Cultural and Socioeconomic Factors**

Cultural beliefs, family dynamics, socioeconomic status, and health literacy levels can influence diabetes management practices and outcomes. Addressing cultural and socioeconomic disparities in access to healthcare, nutrition education, and support services is essential for improving diabetes outcomes and reducing health inequities.

#### **Self-Management and Education**

Diabetes self-management requires acquiring knowledge and skills related to blood glucose monitoring, medication administration, meal planning, physical activity, and symptom recognition. Providing comprehensive diabetes education and support services tailored to individual needs and preferences is essential for empowering patients to effectively manage their condition.

#### **Ayurveda view**

Ayurveda, the ancient Indian system of medicine, offers an approach to managing prediabetes through lifestyle modifications, dietary changes, herbal remedies, and therapeutic practices.

#### **Dietary Modifications**

Ayurveda emphasizes dietary choices tailored to an individual's constitution or "Prakriti." Prediabetic individuals are advised to consume foods with bitter, astringent, and pungent tastes, which help balance blood sugar levels. Foods with sweet, heavy, and oily properties are generally avoided or consumed in moderation to prevent further imbalance. Ayurvedic dietary guidelines also include recommendations for meal timing, portion control, and proper food combinations to support digestion and metabolism.

#### Lifestyle Changes

Regular physical activity is essential for managing prediabetes. Ayurveda recommends incorporating moderate exercise into daily routines to improve insulin sensitivity and promote overall well-being.Stress management techniques such as yoga, meditation, and pranayama (breathing exercises) are advocated to reduce stress - related to insulin resistance. Adequate sleep and maintaining a consistent daily routine (Dinacharya) are emphasized in Ayurveda to promote hormonal balance and metabolic health.

#### **Herbal Remedies**

Ayurvedic herbs and formulations known for their hypoglycemic properties can be beneficial in managing prediabetes. Bitter gourd (Momordica charantia), fenugreek (Trigonella foenum-graecum), Indian gooseberry (Emblica officinalis), and cinnamon (Cinnamomumverum) are among the herbs commonly used. Herbal supplements or formulations may be prescribed by Ayurvedic practitioners based on individual constitution and specific imbalances identified during assessment.

#### **Therapeutic Practices**

Panchakarma, the Ayurvedic detoxification and rejuvenation therapy, can be recommended for individuals with prediabetes to remove accumulated toxins and metabolic wastes from the body. Specific Panchakarma procedures such as Virechana (therapeutic purgation) and Basti (medicated enema) may be prescribed based on the individual's condition and response to treatment.

#### **Mind-Body Practices**

Ayurveda emphasizes the interconnectedness of the mind and body in health and disease. Mind-body practices such as mindfulness meditation, guided imagery, and Ayurvedic counseling can help individuals address emotional and psychological factors contributing to prediabetes. Counseling on stress reduction, coping strategies, and lifestyle modifications tailored to the individual's needs and preferences is an integral part of Ayurvedic management of prediabetes.

#### **Regular Monitoring and Follow-up**

In Ayurveda, regular monitoring of symptoms, dietary habits, lifestyle practices, and overall progress is essential for optimizing management of prediabetes. Ayurvedic practitioners provide ongoing support and guidance to individuals with prediabetes, adjusting interventions as needed based on the individual's response and changing health status.

#### Key facts (data from WHO published at 5/4/23)

1. The number of people with diabetes rose from 108 million in 1980 to 422 million in 2014. Prevalence has been rising more rapidly in low and middle income countries than in highincome countries.

2. Diabetes is a major cause of blindness, kidney failure, heart attacks, stroke and lower limb amputation.

3. Between 2000 and 2019, there was a 3% increase in diabetes mortality rates by age.

4. In 2019, diabetes and kidney disease due to diabetes caused an estimated 2 million deaths.

5. A healthy diet, regular physical activity, maintaining a normal body weight and avoiding tobacco use are ways to prevent or delay the onset of type 2 diabetes.

6. Diabetes can be treated and its consequences avoided or delayed with diet, physical activity, medication and regular screening and treatment for complications.

#### **WHO response**

WHO aims to stimulate and support the adoption of effective measures for the surveillance, prevention and control of diabetes and its complications, particularly in low & middle income countries. To this end, WHO:

 provides scientific guidelines for the prevention of major noncommunicable diseases including diabetes.



- develops norms and standards for diabetes diagnosis and care.
- builds awareness on the global epidemic of diabetes, marking World Diabetes Day (14 November)
- conducts surveillance of diabetes and its risk factors.

In April 2021 WHO launched the Global Diabetes Compact, a global initiative aiming for sustained improvements in diabetes prevention and care, with a particular focus on supporting lowand middle-income countries. In May 2021, the World Health Assembly agreed a Resolution on strengthening prevention and control of diabetes. In May 2022 the World Health Assembly endorsed five global diabetes coverage and treatment targets to be achieved by 2030. In conclusion, the perception of diabetes as a disease primarily affecting the affluent due to their access to abundant food in the 18th century has evolved significantly. Today, diabetes transcended socio-economic has boundaries and is prevalent in both urban and rural areas, including tribal communities. This shift underscores the increasing prevalence and impact of diabetes as a global health conmultifaceted cern. Addressing the challenges associated with diabetes requires a comprehensive approach encompassing preventive strategies, access to healthcare, health education, and collaborative efforts across sectors to reduce the burden of diabetes on individuals and communities worldwide.

### PRE-DIABETES AND DIABETES Homoeopathic management



Diabetes, a chronic disorder characterised by the body's inability to regulate blood sugar levels, has emerged as a global health concern. According to a study conducted by the Madras Diabetes Research Foundation in collaboration with the Indian Council of Medical Research (ICMR) and the Union Health Ministry, published in the journal, The Lancet Diabetes & Endocrinology, diabetes has reached epidemic proportions, impacting over 101 million adults in India, which is often called the "diabetes capital of the world".

#### **Understanding Diabetes**

Diabetes manifests when the pancreas fails to produce sufficient insulin or when there is insulin resistance, a condition known as prediabetes. This will lead to high blood sugar levels, which can result in severe complications such as blindness, ulcer formation, amputations, and kidney failure.

Recognising the symptoms of diabetes is of paramount importance for early diagnosis and effective management. Common indicators that should not be ignored include excessive thirst, where an unquenchable need for fluids becomes apparent. Going to the lavatory frequently, any time of the day and at night may indicate that your blood sugar levels are elevated.

Unexplained weight loss, despite maintaining regular eating habits, can also raise an alarm, as can constant hunger, with an insatiable appetite that remains unsatisfied. These symptoms, when identified and acted upon promptly, can be key to initiating early intervention and a better quality of life for individuals living with diabetes.



Homoeopathic treatment - A holistic approach Homoeopathic medicine, in combination with hypoglycaemic drugs and insulin, offers a holistic approach to diabetes management. Timely administration of homoeopathic remedies can help maintain insulin levels, allowing for the gradual reduction of conventional anti-diabetic drugs and their eventual discontinuation.

A recent study in Athens demonstrated that combination therapy of Homoeopathic and allopathic medications yielded promising results. In this study, a group of patients with diabetes mellitus type 2 was divided into two groups: Group 1 received conventional oral anti-diabetic drugs and a placebo, while Group 2 received the same oral anti-diabetic drugs along with Homoeopathy. Over nine months of treatment, Group 1 showed a 47% improvement, while Group 2, on conventional medication and Homoeopathy, showed an impressive 97% improvement in diabetes control.

#### Self-help measures

The increasing prevalence of diabetes is a pressing global health issue, with India at the forefront of this epidemic. Early diagnosis and holistic management of diabetes are crucial to preventing life-threatening complications. Homoeopathic treatments, when combined with lifestyle modifications, offer a promising approach to managing diabetes effectively. Homoeopathic treatment should always be pursued under the guidance of a qualified homoeopathic practitioner. In addition to Homoeopathic treatments, individuals with diabetes can adopt several self-help measures to manage their condition effectively:

- Avoid processed and junk foods high in sugar.
- Consume high-fibre whole foods like oats, fruits, vegetables (eg, bitter gourd), and seeds with a low glycemic index.

- Incorporate regular exercise, such as 30 minutes of daily walking, to maintain a healthy weight.
- Quit smoking or limit alcohol consumption.

Homoeopathic remedies like Homoeopathic Insulin can help maintain normal blood sugar levels and keep urine sugar-free. Abroma Augusta is recognised as a leading natural Homoeopathic medicine for diabetes mellitus, while phosphorus serves as a valuable remedy to address vision weakness in diabetic patients. Uranium nitricum is helpful for excessive urination, intense thirst, and a dry mouth.

#### Abroma Augusta

One of the best Homoeopathic medicines for Diabetes with loss of flesh and weakness. Abroma Augusta is the top natural Homoeopathic medicine to treat Diabetes Mellitus. Its use is highly recommended in those patients who are losing flesh and suffer from extreme weakness due to Diabetes Mellitus. The patients who can greatly benefit from this Homoeopathic medicine have an increased thirst with dryness of mouth. They also have an increased appetite and the urination is very frequent day and night. Excessive weakness is felt after urination. Homoeopathic medicine Abroma Augusta is also of great help in treating sleeplessness in a person with Diabetes. Another sphere in which this Homoeopathic remedy yields good results is skin complaints like boils and carbuncles in a diabetic patient. Burning sensation in the whole body is a prominent general symptom that can be found in persons requiring Abroma Augusta.

#### Phosphorus

One of the best Homoeopathic medicines for Diabetes with Weakness in Vision.Phosphorus is a natural Homoeopathic medicine of great help for treating Diabetes Mellitus, though its use depends completely on the constitutional symptoms of the patient. Homoeopathic medicine Phosphorus is a remedy of great help for weakness of vision in a diabetic patient.

#### Syzygium Jambolanum

Top Homoeopathic medicines for reducing sugar levels. Syzygium Jambolanum is among the best natural Homoeopathic remedies for the treatment of Diabetes Mellitus. It acts promptly and efficiently in decreasing the sugar levels. Excessive thirst and excessive urination are always present in the patient. Homoeopathic medicine Syzygium Jambolanum also gives wonderful results in treatment of long-standing ulcers in a diabetic patient.

#### **Phosphoric Acid**

One of the Homoeopathic medicines for Diabetes with extreme weakness. Phosphoric Acid is an excellent natural Homoeopathic remedy for extreme weakness, either mental or physical, in a diabetic patient. Such patients feel exhausted all the time. They have a weak memory and are forgetful. Some sort of history of grief may be found in patients requiring this Homoeopathic medicine. For numbness of feet in patients of Diabetes Mellitus, Phosphoric Acid is the best Homoeopathic remedy.

#### **Gymnema Sylvestre**

Homoeopathic Treatment for Diabetes Mellitus with weight loss. Gymnema Sylvestre is a natural Homoeopathic medicine of great help for patients of Diabetes Mellitus who are losing weight with weakness and exhaustion. In such patients, this Homoeopathic remedy works as a tonic resulting in improvement of overall health. With Homoeopathic medicine Gymnema Sylvestre, the patient puts on weight and feels energetic.

#### Best Homoeopathic Treatment for Diabetes Mellitus on the bases of associate symptoms

### Medicines for Diabetic Retinopathy (damage to eyes due to Diabetes)

Homoeopathic medicines Phosphorus, Arnica, Belladona and Lachesis are equally good natural remedies to deal with eye complaints in diabetic patients. The most suitable Homoeopathic medicine out of these is selected on the basis of symptoms described by each patient.

#### Medicines for Diabetic Nephropathy (kidney damage due to Diabetes)

Natural Homoeopathic medicines that can be very beneficial in the treatment of kidney damage are Lycopodium, Arsenic Album and Serum Anguillae. A complete case history is taken to select the suitable Homoeopathic medicine out of these to deal with the kidney complications in diabetic patients. Homoeopathy offers a small supportive role only in this condition and that too in early stages.

### Medicines for Diabetes with Neuropathy (nerve complaints like numbness in hands and feet)

To deal with the problem of numbness in feet and hands due to Diabetes,natural Homoeopathic medicines Phosphoric Acid, Sulphur and Helonias are considered the best.



### Medicines for skin ulcers in diabetic patients

Skin ulcers are very common complication in patients of Diabetes Mellitus. The diabetic skin ulcers are mostly formed on the feet. Natural Homoeopathic medicines Syzygium Jambolanum and Secale Cornutum are excellent remedies to deal with ulcers in diabetic patients.

#### Medicines for constipation in diabetic patients

For treating constipation in diabetic patients, Homoeopathic medicines Carlsbad, Lac Defloratum and Natrum Sulph top the list. The Homoeopathic remedies that suits you is decided after taking note of the individual symptoms.

#### Medicines for weak memory in diabetic patients

To improve the weak memory in patients of Diabetes Mellitus, Kali Phos, Nux Vom and Phosphoric Acid are the natural Homoeopathic medicines of great help.

### Medicines for Diabetes Mellitus with extreme weakness

The best natural Homoeopathic medicines to improve the general health of diabetic patients with extreme weakness are Arsenic Album, Phosphorus, Phosphoric Acid and Carbo Veg. Any one of these Homoeopathic remedies can be of great help depending upon the individual symptoms of the patient. Homoeopathic Treatment for Diabetes Mellitus can also be very effective in treating Erectile Dysfunction, which can be one of the most serious consequences of chronic Diabetes.

# PREDIABETIC & DIABETICS MANAGEMENT



Prediabetes is a serious health condition in which blood sugar levels are higher than normal but not high enough to be diagnosed as Type 2 diabetes, which is a chronic disease that can lead to serious health problems such as heart disease, stroke, kidney disease and blindness. It can be treated and prevented from progressing to Type 2 diabetes.

Homoeopathic medicine has effective remedies for diabetes and has been shown to be very effective in preventing the onset of Diabetes in prediabetic patients. Homoeopathic remedies work by stimulating the body's own healing response which helps to improve blood sugar control and prevent the development of Diabetes.

#### Signs and symptoms

Feeling very tired ,excessive thirst or hunger,frequent urination ,nausea or vomiting,weight gain or loss,blurred vision and tingling or numbness in the hand or feet.

#### **Diagnosis of Prediabetes**

Glucose test and the Oral Glucose Tolerance Test,The fasting plasma sugar level is between 100 and 125(mg/dL) you have prediadetes.

#### **Preventing Diabetes**

Making these lifestyle change can help prevent Prediabetes from progressing to type 2 diabetes and reduce your risk of developing serious health problems.

#### 1. Get enough sleep

It is an important part of preventing Diabetes.When you are tired, body produces the hormone ghrelin which increase appetite. Sleep atleast 7 hours every night to help keep your blood sugar level under control.

#### 2. Exercise

Exercise more Aerobic exercises like brisk walking,running,biking,or swimming for 30 minutes most days of the week helps keep your blood sugar levels in check. Strength training two to three times a week can also help keep your weight down and your diabetes risk low.

#### 3. A strict meal schedule

Eating on a regularschedule helps keep blood sugar levels stable and prevent the body from over consuming calories It is important to include healthy foods in your diet such as fruits ,vegetables,whole grains and lean protein limiting processed foods and sugary drinks.

#### 4. Portion control is a must

Apart from meal timings the portion of said meals is equally important.While eliminating Carbohydrate, Which is high on the glycaemic index(GI), it is necessary to ensure all meal when combined don't turn out to be high in Gl.

#### 5. Cut out the sugar

Consumption of low sugar diet up drinks will helps to reduce the occurence of the Diabetes.

#### 6. More fibre

A diet high in fibre has been shown to prevent type 2 Diabetes.Fibre helps to keep blood sugar level stable preventing spikes and crashes.Choose whole grains over refined grains eat plenty of fruit and vegetables ,nuts and seeds etc.

#### 7. Stop smoking and alcohol consumption

Both known to increase the risk of developing Diabetes.Smoking increase the risk of developing diabetes by 30-40% and alcohol consumption increase the risk by 50%.

### Unraveling the mysteries Homoeopathy's miraculous role in Diabetes Mellitus Management

#### **D.S.ADLIN SHENIKA** UG Scholar, Maria Homoeopathic Medical College, Perai, Thiruvattar



In the realm of alternative medicine, Homoeopathy stands as a beacon of hope for those seeking unconventional yet potentially effective treatments for various ailments. Among these, its purported efficacy in managing Diabetes Mellitus has sparked both intrigue and skepticism. This article delves into the intricacies of Homoeopathy's approach to Diabetes Mellitus, exploring its principles, potential mechanisms of action, and clinical evidence.

Homoeopathy operates on the principle of "like cures like" and the concept of potentization, where in highly diluted substances are believed to enhance therapeutic effects while minimizing toxicity. This holistic approach aims to stimulate the body's innate healing mechanisms, addressing underlying imbalances rather than merely suppressing symptoms. In Homoeopathic philosophy, Diabetes Mellitus is viewed as a systemic disorder stemming from an imbalance in the body's vital force. Remedies are individualized selected based on symptoms, considering physical, emotional, and constitutional aspects. Common remedies for Diabetes Mellitus include Uranium nitricum, Syzygium jambolanum, and Phosphoric acid, among others.

#### **Diabetes mellitus**

Diabetes mellitus is a chronic metabolic disorder characterized by elevated blood sugar levels over a prolonged period. It occurs when the body either does not produce enough insulin or cannot effectively use the insulin it produces.

#### Types of Diabetes Mellitus

**1. Type 1 Diabetes:** This type occurs when the immune system mistakenly

attacks and destroys insulin-producing beta cells in the pancreas. People with type I diabetes require insulin injections for survival.

2. Type 2 Diabetes: This is the most common type of diabetes, accounting for about 90% of cases worldwide. It occurs when the body becomes resistant to insulin or doesn't produce enough insulin to maintain normal blood sugar levels.

3. Gestational Diabetes: This type occurs during pregnancy and usually resolves after childbirth. However, women who have had gestational diabetes have a higher risk of developing type 2 diabetes later in life.

#### Symptoms

- Increased thirst and urination
- Unexplained weight loss
- Fatigue
- Blurred vision
- Slow-healing sores or frequent infections

#### **Risk Factors**

- · Family history of diabetes
- Obesity
- Sedentary lifestyle
- Unhealthy diet
- Age (risk increases with age)
- Ethnicity (certain ethnic groups are more predisposed)

#### Complications

- Cardiovascular diseases (heart attack, stroke)
- Kidney damage (diabetic nephropathy)
- Nerve damage (diabetic neuropathy)
- Eye damage (diabetic retinopathy)
- Foot damage (diabetic foot)

#### Treatment

*Type 1 Diabetes :* Insulin therapy through injections or insulin pump.

*Type 2 Diabetes:* Lifestyle changes (diet, exercise), oral medications, and in some cases, insulin therapy.

*Gestational Diabetes:* Monitoring blood sugar levels and possibly insulin therapy.

#### Prevention

- Maintaining a healthy weight
- Eating a balanced diet rich in fruits, vegetables, and whole grains
- Regular physical activity
- Avoiding tobacco use

Diabetes mellitus is a serious condition that requires lifelong management to prevent complications. Early diagnosis, proper medical care, and lifestyle changes can help individuals with diabetes live fulfilling lives while reducing the risk of complications.

#### Potential mechanisms of action

While Homoeopathy's mode of action remains a subject of debate, several hypotheses have been proposed. attacks and destroys insulin-producing beta cells in the pancreas. People with type I diabetes require insulin injections for survival.

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#### Potential mechanisms of action

While Homoeopathy's mode of action remains a subject of debate, several hypotheses have been proposed. It's suggested that remedies may influence endocrine function, enhance insulin sensitivity, regulate glucose metabolism, and address associated symptoms such as neuropathy and fatigue. Moreover, Homoeopathy's holistic approach may support overall well-being, potentially impacting glycemic control.

#### Clinical evidence and case studies

Although scientific consensus on Homoeopathy's efficacy in Diabetes Mellitus is lacking, anecdotal reports and case studies abound. These narratives often highlight significant improvements in blood glucose levels, symptom management, and overall quality of life. While randomized controlled trials are limited, some studies have shown promising results, warranting further investigation.

#### **Challenges and considerations**

Critics raise concerns regarding Homoeopathy's scientific plausibility, citing its reliance on highly diluted substances and the lack of robust empirical evidence. Skeptics emphasize the importance of rigorous research methodologies, placebo-controlled trials, and reproducibility in evaluating Homoeopathy's therapeutic potential.

Homoeopathy's role in managing Diabetes Mellitus remains a topic of contention within the medical community. While proponents advocate for its personalized approach and holistic benefits, skeptics demand more empirical evidence to substantiate claims of efficacy. Ultimately, the pursuit of integrative approaches to healthcare necessitates open-minded inquiry, collaboration, and a commitment to patient-centered care. As research continues to evolve, the enigma surrounding Homoeopathy's miraculous potential in Diabetes Mellitus may yet be unraveled.

# Managing the Sugar Disease

with Sweet Medicines

DR. AMRUTHA MANOHARAN B.H.M.S, M.D (Hom.), Diploma in YOGA Diploma in Naturopathy

Diabetes Mellitus(DM) is a chronic metabolic disorder in which utilization of carbohydrate is impaired and that of lipid and protein is enhanced, It is caused by an absolute or relative deficiency of insulin and is characterized in more severe cases by chronic hyperglycaemia, glycosuria, water and electrolyte loss, ketoacidosis, and coma.

#### Epidemology

It is estimated that 366 million people had DM in 2011; by 2030 this would have risen to 552 million.The number of people with type 2 DM is increasing in every country with 80% of people with DM living in low- and middle-income countries. DM caused 4.6 million deaths in 2011.

#### Prevalance

International Diabetes Federation (IDF) data indicate that by the year 2025, the number of people affected will reach 333 million –90% of these people will have Type 2 Diabetes.

#### Etiology

Lifestyle, Genetics, and Medical Conditions, Type 2 DM is primarily due to lifestyle factors and genetics. These are physical inactivity, sedentary lifestyle, cigarette smoking and generous consumption of alcohol Obesity has been found to contribute to approximately 55% of cases of type 2 DM.



### Pathogenesis and pathophysiology of Diabetes mellitus

There is a direct link between hyperglycaemia and physiological & behavioural responses. Whenever there is hyperglycaemia, the brain recognizes it and sends a message through nerve impulses to pancreas and other organs to decrease its effect.

#### **Clinical presentation of Diabetes**

- Acute and sub-acute presentation
  are seen
- Acute presentation -bold
- Young people often presented with a 2 to 6-week history and report the classic triad of symptoms
- Polyuria
- Thirst
- Weight loss

#### **Sub Acute presentation**

The clinical onset may be over months to years, particularly in elderly. Along with the acute symptoms patient may complaint of symptoms as lack of energy, visual blurring, itching of vulvae or dullness.

Some of the symptoms include weight loss, constipation fatigue, cramps, blurred vision, and candidiasis.

#### **Type 1 Diabetes Mellitus**

Type 1 Diabetes is characterized by autoimmune destruction of insulin

producing cells in the pancreas by CD4+ and CD8+ T cells and macrophages infiltrating the islets.

#### **Type 2 Diabetes Mellitus**

In type 2 Diabetes these mechanisms break down, with the consequence that the two main pathological defects in Type 2 Diabetes are impaired insulin secretion through a dysfunction of the pancreatic  $\beta$ -cell, and impaired insulin action through insulin resistance.

Gestational Diabetes has been defined as any degree of glucose intolerance with an onset, or first recognition during pregnancy.

A variety of oral glucose tolerance tests (OGTT) have been applied, but a consensus regarding screening for and classification of GDM is yet to be achieved globally.

Maturity-onset Diabetes of the young is a dominantly inherited form of non-insulin dependent Diabetes that is typically diagnosed before 25 years of age and was first recognised by Tattersall in 1974.

#### **Screening and Diagnosis**

It is still based on the American Diabetic Association (ADA) guidelines of 1997 or World Health Organization (WHO) National diabetic group criteria of 2006, which is for a single raised glucose reading with symptoms (polyuria, polydipsia, polyphagia and weight loss), otherwise raised values on two occasions, of either fasting plasma glucose (FPG) 7.0 mmol/L (126 mg/dL) or with an oral glucose tolerance test (OGTT), two hours after the oral dose a plasma glucose 11.1 mmol/L (200 mg/dL)

#### **Clinical Profile**

- 1. Fasting blood sugar
- 2. PPS
- 3. RBS
- 4. HbA1C

#### **Glycated Hemoglobin**

The life span of hemoglobin in vivo is 90 to 120 days. During this time glycated hemoglobin A forms, being the ketoamine compound formed by combination of hemoglobin A and glucose. Glycated hemoglobin A fraction HbA1c is of most interest serving as a retrospective indicator of the average glucose Concentration. HbA1c is recommended as an essential indicator for the monitoring of blood glucose control.The Blood HbA1c ≥ 6.5% is considered as Diabetes.

#### Complications

#### A) Microvascular

- Diabetic neuropathy
- Diabetic retinopathy
- Diabetic nephropathy
- Erectile dysfunction

#### B) Macrovascular

- Cerebro vascular disease
- Coronary artery disease
- Peripheral artery disease

#### Homoeopathic concept of Disease Miasmatic understanding of Diabetes

The Miasmatic understanding of Diabetes is Deficiency. Diabetes is a chronic disease and shows a phase of each miasma and seems to travel from Psora to syphilis as a natural course.

Diabetes for instance can be psoric, where the system fails to meet the metabolic demand of the body by producing sufficient insulin.

Diabetes is a Disease where the sufficient insulin does not exist its optimal effect on metabolic function.

#### Management

- Medicinal
- · Life style modifications

#### **Medicinal management**

#### 1. Syzygium jambolanum

It has an immediate effect of increasing the blood sugar, a most useful remedy in Diabetes mellitus. No other remedy causes such a marked degree of diminution and disappearance of sugar in the urine.

- Prickly heat in upper part of the body.
- Intense itching caused by small red pimples.
- Severe thirst, weakness, emaciation
- Increased amount of urine with high specific gravity
- Old ulcers of skin, diabetic ulceration
- The powdered seeds must be consumed three times a day. The tincture an also be used.

#### 2. Insulin

An active principle from the pancreas with effects sugar metabolism. When skin manifestations are persistent it is to be given three times daily after eating.

#### 3. Cephalandra indica

The most efficient Homoeopathic medicine for Diabetes Mellitus which is indicated in glycosuria, intolerable burning sensation all over body, dryness of mouth, profuse micturition, weakness and exhaustion after micturition.

#### 4. Gymnima Sylvestre

This medicine specifically acts on Diabetes known as sugar killer. It diminishes sugar in urine, patient puts on weight, improves appetite and gains health. It also prolongs a diabetic patient's life. It is also indicated in polyuria and Diabetic carbuncles.

### **Diabetes Mellitus** Management in Siddha



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Diabetes is a chronic metabolic disorder characterized by elevated levels of blood glucose, which leads overtime to serious damage to heart, blood vessels, eyes, kidneys and nerves.

#### Classification of Diabetes Mellitus

#### 1. Type I Diabetes Mellitus

Also known as Insulin dependent diabetes mellitus. It is a condition characterized by auto immune destruction of  $\beta$  - cells which usually lead to insulin deficiency.

#### 2. Type II Diabetes Mellitus

Also known as Non Insulin dependent diabetes mellitus. Most common usually in adults which occurs when the body becomes resistant to insulin or doesn't make enough insulin.

#### 3. Gestational diabetes mellitus

Which occurs during pregnancy but may resolve after the baby is delivered.

#### Symptoms

- Polydipsia (Increased thirst)
- Polyphagia (Increased appetite)
- Polyuria (Increased urine output)
- Unexplained weight loss
- Feeling tired and weak
- Blurred vision
- Irritability
- Infections: UTI, frequent infections such as skin infections and vaginal infections
- Poor wound healing

#### Complications

Long-term complications of Diabetes develop gradually. The longer time period of having Diabetes and the less controlled blood sugar - the higher the risk of complications. Eventually, Diabetes complications may be disabling or even life-threatening.

#### Possible complications include: Nerve damage (Neuropathy)

Excess sugar can injure the walls of the tiny blood vessels (capillaries) that nourish the nerves, especially in legs. This can cause tingling, numbness, burning or pain that usually begins at the tips of the toes or fingers and gradually spreads upward. If left untreated it could lead to loss of sense of feeling in the affected limbs. Damage to the nerves related to digestion can cause problems with nausea, vomiting, diarrhea or constipation. For men, it may lead to Erectile dysfunction.

#### Kidney damage (Nephropathy)

The kidneys contain millions of tiny blood vessel clusters (glomeruli) that filter waste from your blood. Diabetes can damage this delicate filtering system. Severe damage can lead to kidney failure or irreversible end-stage kidney disease, which may require dialysis or a kidney transplant.

#### Eye damage (Retinopathy)

Diabetes can damage the blood vessels of the retina (Diabetic retinopathy), potentially leading to blindness. Diabetes also increases the risk of other serious vision conditions, such as Cataracts and Glaucoma.

#### Cardiovascular disease

Diabetes dramatically increases the risk of various cardiovascular problems, including Coronary artery disease with Chest pain (Angina), Heart attack, Stroke and narrowing of arteries (atherosclerosis).

#### Foot damage

Nerve damage in the foot or poor blood flow to the foot increases the risk of various foot complications. Left untreated, cuts and blisters can develop serious infections, which often heal poorly. These infections may ultimately require toe, foot or leg amputation.

#### **Skin conditions**

Skin conditions are more susceptible to skin problems, including bacterial and fungal infections.

#### **Hearing impairment**

Hearing problems are more common in people with Diabetes.

#### **Medical investigations**

- Fasting blood sugar (FBS)
- Postprandial blood sugar (PPBS)
- Glycated Haemoglobin (HbAlc)
- Complete Blood Count (CBC)
- Renal Function Test (RFT)
- Liver Function Test (LFT)
- Glucose Tolerance Test (GTT)
- Complete urine analysis

#### Siddha concept of Diabetes mellitus

In siddha Diabetes is known as madhumegam, pramegham, neerizhivu noi etc. According to siddha concept madhumegam is mainly caused due to excessive intake of ghee, milk, fish, toddy and excessive indulgence in sex, improper time of sleep, increased body heat (azhal), worries, tension, laziness and sedentary jobs also leads to this condition. In siddha it is classified into 20 types. Vatha - 10 types, Pitha - 6 types and Kapha - 4 types. It is explained by increased kapham that influences vatham and pitham, this leads to deterioration of 7 udal thathus (Saaram or nourishing juice, Chenneer or blood, Ooun or muscles, Enbu or bone, Moolai or bone marrow, Kozhuppu or fat, Sukkilam / suronitham or semen / ova).

#### Diet

#### To be included

- Hand pounded boiled rice, Wheat, Ragi, Pearl millet and Fox tail millet
- Tender vegetables like Bitter gourd, Bottle gourd, Lady's finger, Hyacinth bean, Drumstick, Ivy gourd, Allium cepa and Ficus racemosa.
- Greens like Coriandrum sativum, Mentha arvensis, Murayya koenigii, Moringa oleifera, Centella asciatica,

- Solanum nigrum, Amaranthus gangeticus
- Fruits like Pomegranate, Pappaya, Gooseberry, jamun fruits, lime juice without sugar
- Pulse varieties like green gram and black gram

#### To be avoided

- Sweets
- Bakery products like cakes pastries, cream biscuits, concentrated milk preparations like peda, burfee.
- Ice creams, soft drinks and fruit juices
- Tubers like Potato, Sweet potato, Yam, Carrot, Beet root
- Saturated fats like vanaspati, dalda, ghee and butter
- Nuts, dry fruits, Almonds and cashew

#### **Exercise**

People with diabetes are encouraged to exercise regularly for better blood sugar control and reduce the risk of cardiovascular disease. The reason for this is that muscles which are working use more glucose than those that are resting.

- Brisk walking
- Running
- Regular bicycling

- Dancing
- Swimming
- Playing sports

#### Herbs used to manage Diabetes

- Tinsospora cordifolia
- Eugenia jambolana
- Gymnema sylvestre
- Aegle marmelos
- Trigonella foenum graecum
- Curcuma longa
- Angrographis paniculata
- Phyllanthus emblica
- Allium sativum

#### **Yoga practices**

- Alternate nostril breathing Nadisuddhi pranayamam
- Cobra pose Bhujangasanam
- Lotus pose Padmasanam
- Diamond pose Vajrasanam
- Shoulder stand Sarvangasanam
- Plough pose Halasanam
- Seated forward bend pose Patchimothasanam
- Wind releasing pose- Pavanamukthasanam
- Bow pose Dhanurasanam
- Hand to foot pose Pathahasthasanam
- Locust pose Salabasanam
- Corpse pose Savasanam
- Half spinal twist-Ardha matsyendrasanam

#### Lifestyle changes to control Diabetes

- Eat healthy
- Exercise
- Get regular health checkups
- Manage stress
- Quit smoking and alcohol

#### World Diabetes Day (WDD)-14 November

Established in 1991 by the International Diabetes Federation with support from WHO in response to growing concerns about the health and economic threat posed by diabetes, World Diabetes Day became an official UN day in 2006. It is marked every year on 14 November the birthday of Sir Frederick Banting, who co-discovered insulin along with Charles Best in 1922.



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