

DIABETES MELLITUS AND ITS **HOMOEOPATHIC TREATMENT**

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In this modern civilization, the society receives a good number of experiences along with many new diseases and defects, which can harm the entire society. Among these, one of the common diseases is Diabetes mellitus. But it should be clear in our mind that, it is not merely a pathological condition localized to the material body, rather it is the resultant of the extremely unscientific lifestyle of this time i.e. stress and mental anxiety, lack of physical exercise, irregular diet, extreme level of artificially harbored food products, irregular food habit, variety of addictions and lack of sound sleep. On the basis of our Homoeopathic concept of disease we know that, disease is not only a physical entity rather it is the dynamic deviation from the health, predisposed by “ the ascertainable physical constitution of the patient, his moral and intellectual character, his occupation, mode of living and habits, his social and domestic relations, his age, sexual functions, and etc”(ORGANON OF MEDICINE, 6th edition by Dr.C.F.S.Hahnemann) even our mode of thinking also plays an important role in the formation of the disease.

Now let us come to the matter of our discussion,' Diabetes mellitus and its Homoeopathic treatment'. We know that Diabetes mellitus comprises a heterogenous group of metabolic diseases that are characterized by chronic hyperglycemia and disturbances in carbohydrate, lipid and protein metabolism and glycosuria, resulting from the defects in the insulin production, insulin secretion and or insulin action(ANDREOLI AND CARPENTER'S CECIL ESSENTIALS OF MEDICINE, 8th edition, AUGUSTINE P., MANCIENT G.,DARTIGUES J.F. THE PAQUID SURVEY REPORT), but these conditions result from a number contributing factors which can irritate a person as a whole. If we go through the subtypes of Diabetes mellitus, we find that it is subdivided into

- 1. Type1, i.e. Insulin Dependent Diabetes Mellitus(IDDM) and**
- 2. Type2, i.e. Non insulin Dependent Diabetes Mellitus (NIDDM), among which Non Insulin Dependent Diabetes Mellitus is very common in recent days.**

Now, if we search for the pathogenesis (How the disease initiates) of the NIDDM, we will be acquainted with another terminology, i.e. Insulin Resistance.

Except this Insulin Resistance there are much more aetiological factors for NIDDM, but it is the main cause, for which insulin does not perform its role, although the concentration of insulin in the blood stream is sufficient or more than sufficient(Hyperinsulinaemia). Now, if we investigate the cause of this insulin resistance, then we see that glucose transporters, i.e. 1. GLUT1- Situated

in Erythrocyte, Brain, Placenta, Colon, and Kidney.

2. GLUT2- Situated in Hepatocytes, the cells of our Principal metabolic organ Liver, B cells of Pancreas, Intestine, Kidney.

3. GLUT3- Situated in Brain, Kidney, Placenta.

4. GLUT4- Situated in Skeletal muscles, Adipose tissues, Other tissues.

5. GLUT5- Situated in Jejunum

6. GLUT6- Situated in Pseudogene

7. GLUT7- Situated in Hepatocytes of Liver, does not work properly.

For that reason the glucose uptake from the blood stream does not take place adequately. The working capacity of these glucose transporters is largely dependent on the Sulphur molecule (BERNERD THORENS, INSTITUTE OF PHARMACOLOGY, UNIVERSITY OF LAUSSANE, SWITZERLAND, BIOCHEMICAL RESEARCH CENTRE, NINEWELLS HOSPITAL AND MEDICAL SCHOOL, SCOTLAND).

Now let us switch to the Homoeopathic approach for the treatment of Diabetes mellitus. Homoeopathy is a mode of treatment that does not consider only physical deviation from health, rather it considers a person as a whole i.e. present complains, history of present complains, past history, relevant family history, physical generalities and mental generalities of the person. Some people say that Homoeopathy does not consider any disease manifestation, but if we say correctly, then that sounds like, Yes, Homoeopathy gives the value to uncommon peculiar characteristic symptoms of the person apart from the common symptoms of the disease. But if we have sufficient knowledge about the disease phenomenon, then we should find that, uncommon peculiar characteristic symptoms are nothing but the symptoms of the disease on different stages, depending on the susceptibility of the patient. So, the uncommon peculiar characteristic symptoms help us to understand the progression of disease along with selection of the correct Homoeopathic remedy. Now if we go through the CLINICAL REPERTORY by Dr. Robin Murphy we find that there are more than sixty medicines under the rubric Diabetes mellitus. But on the basis of our disease knowledge we can easily categorize them according to the aetiopathogenesis and progression of the disease. Here I will discuss about one of the frequently used deep acting medicine without which our Homoeopathic treasury will not be fulfilled, i.e. SULPHUR, which has many important roles in the body also.

Sulphur is known as a healing mineral. Sulphur deficiency leads to initiation of inflammation, pain, obesity, Diabetes mellitus, Hypertension and Alzheimer's disease associated with various muscular and skeletal disorders like Arthritis etc. Sulphur plays an important role in many biological processes, one of which is Metabolism. It is present in Insulin, the essential hormone which promotes

utilization of Sugar and Lipid and in some essential amino acids also. Again, above mentioned diseases or conditions closely related with each other, e.g. obesity is the principal cause of NIDDM and Hypertension; Hypertension is an associated feature of the NIDDM etc. Sulphur is also responsible for maintaining cellular integrity, cellular activity and cellular response.

Now we will discuss about the Sulphur and Glucose metabolism. Skeletal muscle cells and fat cells breakdown glucose, in the presence of oxygen in their mitochondria and in this process they produce Adenosine triphosphate (ATP). A glucose transporter called GLUT4, which migrates to the cell membrane depending upon stimulation by insulin. GLUT4 essentially acts as a key that unlocks the door of the cell, letting glucose move into the cell. So, it helps in glucose uptake by the help of Insulin. Both glucose and oxygen, unless they are carefully managed, can cause harm to the cellular protein and fat. To give protection against this glycation damage, Sulphur forms a compound with the help of sunlight, called Cholesterol sulphate, which supplies energy and negative charge to the cells. By this phenomenon, glucose enters the cell within special Cholesterol rich sites in the cell wall, called Lipid rafts. But sulphur deficiency leads to accumulation of extra cholesterol on the viscera (Visceral obesity, results from Central obesity) and other body parts and this extra cholesterol allows the vulnerable lipoproteins in the cell wall which causes reduction of the glucose uptake, which leads to increased amount of glucose in the blood.

When the cells are exposed to insulin, its mitochondria are triggered to start pumping both the Hydrogen peroxide (H_2O_2) and Hydrogen ions (H^+) into the cytoplasm. If cholesterol sulphate enters the cell alongside the glucose then that will protect the cell from the glycation damage. Cholesterol sulphate is the catalyst that seeds the lipid raft. Iron sulphate is then formed by bonding the iron in the 'Haem' unit in myoglobin to a sulphated ion provided by the cholesterol sulphate. The cholesterol is left behind the cell wall. They enrich the newly formed lipid raft with cholesterol. The Hydrogen peroxide, provided by mitochondria upon insulin stimulation, catalyzes the dissolution of glucose by the iron sulphate. The pumped hydrogen can pair up with the reduced sulphur [$S(-2)$] to form Hydrogen sulphide (H_2S), a gas that can easily diffuse back across the membrane for a repeat cycle. The oxygen, released from the sulphate radical, is picked up by the myoglobins, sequestered inside the molecule for safe travel to the mitochondria. Glucose breakdown product and oxygen are then delivered to the mitochondria to complete the process, which ends with water, CO_2 and ATP, all while keeping the cell's cytoplasmic proteins safe from the Glycation damage.

Now if Sulphur deficiency occurs then the following effects take place.
Deficiency of Sulphur Cholesterol sulphate formation decreased Iron sulphate formation decreased Glycation damage Loss of activities of glucose transporter Cellular resistance and due to this reason, we find some manifestations

outwardly as Dryness of skin, unhealthy skin, wasting of muscles, assimilative disorders, allergic rhinitis, excessive mucous secretion in the respiratory tree, mental and physical irritability, aversion to exercise, heaviness and lameness of the back and limbs, irritable bowel habit, burning in different parts of the body, intolerance to heat, defect in the gastric barrier mechanism, Hyperchlorhydria, Myocardial infarction, functional cardiac disorders etc. (WAITE J.H.BEETHAM W.P., THE COMPREHENSIVE .STUDIES OF DIABETES., BARRICK.S.HOFFLAN, SULPHUR AND ITS EFFECT ON THE BODY; DREYFUS P.M., HUANG P.C. SULPHUR THE MAGICAL ELEMENT, U.S.A., KISSEL.J.T.BARR, R.M.JINGLE, ZEIGER.C.A.THOMAS, CARDIO RESPIRATORY ACTION OF SULPHUR; GOLDSTAIN, MULLER, GORG, PSYCHOLOGICAL ALTERATION DONE BY SULPHUR).

Now for a successful Homoeopathic prescription, we have to match the symptoms given by the patients and symptoms observed by the physician with the symptoms found in our HOMOEOPATHIC MATERIA MEDICA, i.e. the symptoms of the remedy. The symptoms of the Materia Medica found by thorough Drug proving on a group of apparently healthy people of different age, sex, area, occupation etc. Now I will discuss one of the cases of NIDDM found in our OPD, treated successfully with potentised Sulphur.

Age-45 years, Sex- Female, Occupation – Home maker

Presenting complains- 1) Itching eruptions on the whole body, especially on the back, Burns like fire, worse by scratching, application of water and spring time and ameliorated by dry heat. 2) Irritable bowel habit with dry, hard, insufficient stool with ineffectual desire.

Past History- 1. Eczema on both legs before 4 years , treated locally by the application of local ointment.

2. Jaundice before 6 years.

Family History-Both father and mother suffered from NIDDM and died in Cardio-respiratory failure and CVA respectively.

Physical General-

Appetite- Less

Thirst – Profuse, due to great dryness of the mucous membrane.

Desire- Meat, Fish, Sweet, Lukewarm food

Aversion- Milk

General Tendency- Easily catches cold from rain wetting and change of weather.

Thermal reaction- Hot patient

Tongue- Whitish with red crack at the tip.

Sleep- Catnap sleep, must wake at 4.30 am, Talks during sleep.

Mind- Very forgetful, Thinking very difficult, Aversion to exercise, Irritable, Selfish, Lazy, Depressed.

Probable diagnosis- Type 2 Diabetes Mellitus

Suggested investigations- 1) Blood for FBS and PPBS, HbA1C

Laboratory findings- 235mg/dl (F), 578mg/dl(PP), HbA1C- 7%

Confirmed Diagnosis- NIDDM

Selection of Medicine- SULPHUR200/1 Dose in sac lac.

After one month of this Homoeopathic prescription along with the proper management, the patient is asked to visit the OPD with the recent reports of those previous investigations and now the report is as follows- FBS- 125 mg/dl, PPBS- 194 mg/dl & the HbA1C- 5% and the complain of the patient is gone entirely. Now we repeat the same medicine in a higher potency, i.e. SULPHUR 1000/1 dose and directed the patient to obey the directions and asked her to come after 2 months with the current reports of the said investigations done again. After the due time the report becomes FBS- 90mg/dl, PPBS- 148mg/dl, HbA1C- 4.5% and she has no complain. Now for the confirmation of her cure, we asked the patient to come after 2 months with the current pathological reports of the said investigations done again and now the reports are as follows : FBS- 90mg/dl, PPBS- 145mg/dl, HbA1C-4.5% and the patient is free from any trouble. So, by the dynamic similimum the NIDDM can be treated successfully.

Apart from the above mentioned case there are cases in which remarkable successes have been obtained by the administration of dynamic Homoeopathic medicines. There are many more medicines used successfully for the treatment of NIDDM, but in different stages, e.g. NATRUM MURIATICUM (When glucose uptake causes reverse loss of Sodium ion), LYCOPODIUM (When proteinuria starts as a result of Diabetic nephropathy), PHOSPHORUS (DKA) etc. So, from the above discussion we can easily say that Sulphur and Sulphur containing material plays an important role in NIDDM. We have to suggest the investigations for the confirmation of the disease not for the provisional diagnosis in a whimsical manner, because careful observation may guide truly to understand the progression of the disease as well as identifying a suitable remedy.

Now if we go through the pathogenesis of the Symptoms of the medicine Sulphur laid in the Homoeopathic materia medica, found during the process of Drug proving, then we will find some new information, e.g. 1) Sulphur patients are tall, slender with stooping shoulder, generally suffering from lack of nutrition in spite of taking nutritious food. This is because lack of Sulphur in the body, the cells cannot assimilate food, and cannot produce energy in sufficient amount. Due to this same reason Sulphur patients are averse to do any exercise. 2) Sulphur patients have aggravation from water, even they do not want to bath. Because, due to fragile condition of the skin (Due to lack of sulphur), water causes irritation and excessive chilliness, in spite of burning in the body. Other says that due to lack of courage of work, they avoid even their daily works, that is why they remain dirty. 3) Excessive hunger, Hyperacidity, Burning eructation etc are

again due to the deficiency of Sulphur, which increase gastric motility rate and make a suitable atmosphere for the residence of H.pylori, etc.

Although, for the treatment of diseases, we have to prescribe medicines, but we know that **“PREVENTION IS BETTER THAN CURE”**. It is the fact that if we live a disciplined life, perform sufficient amount of physical exercises, avoid harmful addictions, take healthy food, manage our mental stress, avoid anxiety then we can live free from many dangerous diseases, which make our surroundings healthy.

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