

Greeshma '96

Diabetes Care

Rs. 15

Jeevaniya

Bimonthly

Health Care Magazine

- Symptoms & Diagnosis of Diabetes
- Dietary Management of Diabetes
- Diabetes During Pregnancy
- Care of Feet for Diabetics
- Plants Useful in Diabetes



- Nature Cure of Diabetes
- Yogasanas Useful in Diabetes
- Modern Management of Diabetes
- Precautions While Using Insulin

JEEVANIYA Bimonthly

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— Editor

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Diseases of the Affluent Society

It is a general presumption that diseases like diabetes, heart diseases and cancer affect only rich persons. However, it has been found that these diseases also affect many poor persons in India. Various reasons have been attributed to this amongst which dietary habits and heredity are most prominent. Famous Indian medical researchers Dr.Ahuja, Dr.Bajaj, Dr.Verghese, Dr.Tripathi and others reported diabetes due to malnutrition for the first time in India. Several studies have been conducted in Europe, America, Singapore etc. on the role of heredity in diseases by extensive medical checkups of persons of different origins. On the basis of these findings, it has been found that people of Indian origin were more prone to various heart diseases, besides, the heart diseases resulting due to diabetes.

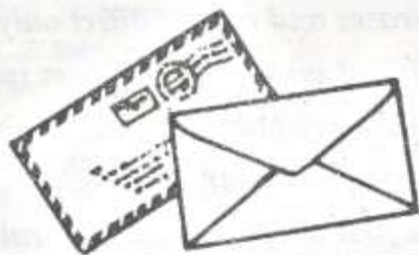
Oral cavity cancer and cervical cancer are more prevalent in India, although other types of cancer patients are also increasing. Use of tobacco, Pan Masala, Pan, smoking and malnutrition, frequent deliveries, genital infections etc. are some of main reasons for these two types of cancers.

Indian policy makers should therefore be concerned on this double burden of diseases. On the one hand these are due to malnutrition, frequent deliveries, unhygienic living conditions and lack of safe drinking water which cause diseases like diarrhoea, malaria, filaria, tuberculosis, leprosy and other infectious diseases in our poor country. On the other hand increase in diabetes, cancer and heart diseases has also become a matter of greater concern. Thus, it has become necessary not only to effectively use vast infrastructure of health services but also effeciently use every scarce resource available to us.

In these circumstances active cooperation of traditional health practitioners and physicians of ISMs should be actively sought in managing several diseases and health problems. These traditional health practitioners may also play an effective role in programmes of preventive and positive health care. Doctors of modern systems should be asked to play more active role by effectively using modern diagnostics, treatment and surgical equipments for eradication of those diseases which need their specific interventation.

In the early cases of diabetes, traditional treatment with yoga, nature cure and herbal drugs should be applied. It must be kept in mind that diabetes is such a disease which can affect many organs besides heart, kidney and eyes. Therefore, it requires special attention in early diagnosis, management and treatment. Use of modern medical system is a must in diabetics where use of insulin has become a necessity.

Readers Forum



Dear Editor

I came across your Jeevaniya recently. I have found it very informative. Its layout and content is very good. Now I am eager to go through all its old issues.

Kashinath Patore, Maharashtra

I am very happy to know that you are publishing a health care magazine Jeevaniya. We also appreciate that you are publishing wall papers on primary health care and medicinal plants. Really it is a great contribution and effort for promoting science communication through well illustrated posters. We are very much interested to use these wall papers in our campaign for popularising and conserving medicinal plants in rural areas.

Prabhu Manikar, Madhya Pradesh

I have been a keen reader of Jeevaniya. I read this health care magazine with great interest. As a well wisher I have to make a few suggestions. I want that the magazine should have more and more coloured pictures of the medicinal plants

and the nutritional substances. I shall welcome your effort if you can increase the total number of pages for News section. Jeevaniya should carry more news from Indigenous and Modern system of medicine. In the News section the information regarding camps, training programmes, seminars and forthcoming events should also be given

Dr C. K. Saran, Orissa

We always value the suggestions of our readers. As regards your suggestion for increasing the total number of pages for the news sections, you would notice after reading our magazine that we give important information in the field of health in the articles also. We highlight all such informations in boxes. We cover all the items as mentioned in your letter in some or other issue of our magazine. However, we are not yet able to give colour pictures due to high costs.

Editor.

I have been a subscriber of Jeevaniya for a long time. I always read it with great interest. I want that the magazine should be able to cater to the interest of all its readers. So I have a suggestion

that in order to improve this health care magazine you better start publishing 'Slokas' from Gita, Manusmriti and writings of Charaka.

Hanumantha Rao, Andhra Pradesh

I happened to see some of the old issues of Jeevaniya. I have read those special numbers of the magazine. I have liked all articles in their presentation and the contents.

G. Narayana, Bangalore

I have been a keen reader of your magazine. This magazine is really very good health magazine. I appreciate the efforts of all the members of Jeevaniya Pariwar for publishing this magazine. I have not been receiving your magazine regularly that really puts me in trouble.

Ganga Prasad Saini, New Delhi

Recently my friend told me about your magazine. He gave me a copy of Jeevaniya. I have gone through it. I have found it very informative. I am graduate in Naturopathy and Yoga. I am very much interested in the magazine as I believe that Jeevaniya will definitely help me in widening my field of knowledge.

*Dr. S. A. Huvinahalli,
Karnataka*

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Television-induced Epilepsy Common Among Children



Excessive Television viewing and over indulgence in video games by children is leading to a steady increase in the incidence of epilepsy among them. Children are now glued for longer hours to the television, leading to an increase in what neurologists term as "photo-stimulus sensitive epilepsy or television-induced epilepsy,"

Television-induced epilepsy among children was common in the West but now cases are also being reported in India, Dr Uppal said. Before the invasion of the satellite networks the hours of television viewing were limited but this is not the case now, he added.

As children could not be totally stopped from television viewing, it was always advisable that parents limited the viewing hours.

According to Dr Uppal, television-induced epilepsy occurs as the photo stimulus cells in the brain start firing excessively and abnormally leading to certain changes at the molecular level in the brain thereby disturbing the balance between the excitatory and inhibitory neurotransmitters. This disturbs the energy level (ATP level) of the brain cells resulting in epilepsy, he added.

The chances of children being prone to television-induced epilepsy are greater than the adults because the levels of concentration of the former is greater towards programmes.

According to the doctors fast-moving scenes in the television should not be watched by children.

Self Medication in Chronic Diseases

Self Medication has been discarded as a dangerous trend in the past. A concept of collaborative care is fast emerging in Europe and United states where patient self prescribes the medicine following an initial diagnosis by a physician. The World Health Organisation (WHO) has now incorporated this concept for certain chronic or recurring conditions, such as vaginal candidiasis, into its guidelines for developing National Drug Policies.

Control Acidity with Coconut

The coconut is a reservoir of minerals and vitamins essential for good health, packed as it is with calcium, iron, copper, vitamin B and folic acid. It is believed to contain all the essential daily nutrients and vitamins required by the body.

Cocunut contains a great deal of fat, but it scores over other fatty oils, in that it is easily digestible. In fact, food cooked in cocunut oil is simple to digest, and so the coconut is useful in treating heartburn, indigestion and gastric problems. Cocunut produces the necessary base to fight acidity, while the minerals present in it, help in restoring the body from internal injury.

The water contained inside the coconut kernel is equally health enriching. It has high therapeutic value and is an aphrodisiac which rejuvenates the body, giving it strength and vigour. Coconut water is also used as a skin lotion, and was believed to remove small-pox scabs in olden days. Besides, drinking the water is believed to be good for the liver and relieves nausea.

If you have been spending sleepless nights with dry cough wracking your chest, try a spoon of freshly ground cocunut mixed with honey. It soothes the throat.

The oil of the coconut has medicinal uses, as well. Its use as a balm for cuts, burns and bruises is well-known. In winters, it is regularly used to keep skin smooth and soft. Rubbed into the scalp regularly, it arrests falling and greying of the hair. It adds lustre to the hair and rids it of dandruff.

Vitamin may Check Heart Diseases



Researches now say that folic acid, a B-vitamin can counter natural agents which cause heart attacks and strokes. One of the agents, Homocysteine, though not a well-known word is now regarded in the same category as cholesterol, say researchers at the Harvard medical school.

However, high homocysteine levels are easier to treat than high cholesterol levels and can be effected by consuming abundant amounts of folic acid, according to the medical journal "Medinews." The vitamin is present in many fresh vegetables and orange juice or by taking folic acid supplements which are not only readily available but also safe.

The new findings await large clinical trials to see if those who lower their homocysteine levels are in fact protected from heart disease. Tests on monkeys confirmed that homocysteine did in fact cause hardening of the arteries but few took any serious note of the tests because there was little commercial potential in folic acid.

In the eighties a study on 15,000 doctors in the US called 'physicians health study,' showed that those with homocysteines higher than 12 per cent had a risk of heart attack that was three-and-a-half times higher than those with lower levels.

High BP may Harden Arteries

People whose blood pressure shoots up during stressful mental challenges are more likely to get hardening of the arteries, which can lead to heart attacks and strokes, a study found. While stress is often portrayed as uniformly bad, the new work suggests its effects vary dramatically from person to person. Some handle frustrations with little change in blood pressure, yet it soars in other people.

Experiments on animals have shown stress is a potent contributor to blocked arteries in monkeys. So researchers from the University of Western Ontario set out to see if the same is true in people.

They used a diabolical computer game, called the colour-word interference task, to check 348 diverse volunteers' reaction to stress. They were required to quickly identify the colour in which the words for colours were written. For instance the word 'Red' might be spelled out in yellow. So 'Yellow' is the correct answer.

Overall, the volunteers' blood pressures did not go up much during the 20-minute game. The average increase was 10 points of systolic pressure the first of the two blood pressure numbers and six points of diastolic pressure. Some people's blood pressures actually fell during the exercise. But for others, blood pressure soared. Some went from a normal 120 over 80 to a seriously elevated 174 over 124.

The researchers then used ultrasound over the next two years to measure the amount of obstruction in the volunteers' carotid arteries, the blood vessels in the neck that feed the brain.

They found that those who had reacted most powerfully to mental stress developed the most new deposits in their carotid arteries. Even when they looked at all the other known contributors to this disease, such as smoking and diabetes, the reaction to stress was the most potent contributor to atherosclerosis.

Fish 'Medicine' for Asthma



Worldwide, bronchial asthma is becoming more frequent. The reasons could be pollution from motor vehicles or perhaps items in the food we eat. Bronchial asthma can occur at any age, but is more common in childhood and in middle age. Half of those who develop asthma do so before the age of 10. Adult asthma starts evenly across the decades. Once begun, asthma generally persists for many years. Later the age of onset, longer the duration of asthma.

For a disease that is so common, so disabling when severe, and that lasts so long, it is understandable that asthmatic persons look for a variety of cures: one such is the so called ayurvedic 'fish treatment', practised in Visakhapatnam, Hyderabad and other parts of Andhra Pradesh. This phenomenon is spreading to the rest of India and beyond, to the Gulf as well.

In this form of treatment, live fingerlings of Channa species fish, containing herbal medicine, are force fed to the patients. These wild fish, collected from natural sources, are given at specific times, on Margasira Karthika day.

When a disease is difficult to treat, or does not have a permanent cure, people often approach non-conventional methods. This phenomenon is not peculiar only to India and other developing countries, but is prevalent in the western world as well. Yet, the principle underlying any treatment should be, as Sir Robert

Hutchison so eloquently, stated "... and from making the cure of the disease more grievous than the endurance of the same, Good Lord, deliver us."

A recent study has shown that these fish, the vehicles for the ayurvedic 'fish medicine', contained a variety of helminths that could infect patients consuming the fish. Madhavi and others from the Department of Zoology, Andhra University, Visakhapatnam examined 36 fish meant to be used for asthma treatment. In a report published in *Current Science* they showed that all 36 contained parasites which could infect patients taking this asthma 'medicine'. The fish had parasites in the skin, the stomach, the muscles, gills and viscera, scales and in the intestines. Zoonotic transmission is possible in asthmatic patients who consumed these fish and developed parasitic infection.

Lens Wearers be Aware

Water that is not sterile should never be used to clean contact lenses despite claims to the contrary alert researchers in the *British Medical Journal*. This warning has come from an ophthalmologist and a senior scientist from the Western infirmary from Glasgow. The scientists are concerned about the incidence of infection caused by *acanthamoeba*, an amoebae that can cause sight threatening corneal disease. The organism can be found in mains and tank fed water supplies. The doctors have seen patients with corneal inflammation, after using tap water for cleaning.

Scientists say that chlorine concentrations in tap waters are too low to inactivate the organisms' cyst form. Commercially available tablets that generate chlorine for cleaning lenses are not effective against the cysts either, they add. Only solutions that contain hydrogen peroxide or chlorhexidine and that use sterile diluent are reliable *acanthamoebicides*, scientists advise. Although thiomersol products can kill the pathogen, they may induce hypersensitivity.

Robotic Probe in Brain



A simple robot may give surgeons greater control of surgical instruments during delicate brain operations. The robotic probe is being developed at NASA's Ames Research Centre in Mountain View, California, by the agency's neuro engineering group. It uses a special computer software similar to that used to help focus personal video recorders.

The probe, equipped with a tiny pressure sensor can enter the brain, gently locating the edges of tumours while preventing damage to critical arteries. Potentially, the robot will be able to 'feel' brain structures better than any human surgeon, making slow, very precise movements during an operation.

The probes should reduce brain damage during operations. The risk during standard procedures is that the probe might damage an artery, causing the patient to bleed to death on the operating table.

During the robotic procedure, the speed and maximum pressure are controlled by a smart computer programme that continues to learn as it gains more experience. If it hits an artery, the probe will stop before it penetrates. If the computer stops the probe, the surgeon can decide what to do next.

Vaccine for Arthritis

In a preliminary human trial to test a vaccine against rheumatoid arthritis, an injection of white blood cells, especially from a spouse, protected against flareups, reducing swelling and pain.

Jefferson Medical College researchers reported that when a series of injections of white

blood cells mostly from spouses were given to 11 women with rheumatoid arthritis, eight reported less pain and swelling.

The vaccine against rheumatoid arthritis shows great promise in its ability to reduce or alleviate pain and disability caused by attacks of the disease.

Mother's immune system manufactures proteins called cytokines, some of which shield the developing fetus from immune attack and rejection. These circulating cytokines, in turn, may prevent rheumatoid arthritis attacks.

In the rheumatoid arthritis vaccine process, Dr Smith and his colleagues take blood from a donor in the open trial the blood most frequently came from the woman's spouse. Certain of the white blood-cells are then processed and injected into the patients.

The study found that the cells from the spouse seemed to work better in reducing rheumatoid arthritis symptoms than cells from strangers. The rheumatoid arthritis vaccine treatment could be widely available in 2 to 3 years.

Diagnose the Disease in Minutes

A plastic film that mimics litmus paper can instantly detect micro-organisms that cause disease. The film changes from blue to red on contact with positive samples. The tests are based on polymers that change colour. Doctors trying to identify infections often have to take samples from patient and culture them up until colonies of bacteria appear, but this can take longer than a week. Tests based on antibodies that cling exclusive to a target microorganism can take as little as 20 or 30 minutes, but they are often expensive and fiddly, requiring the addition of extra chemicals.

Mr. Charych, developed the test with Mr. Ray Stevens of the University of California at Berkeley. The researchers are learning how to customise the polydiacetylene film to target different microorganisms and their toxins. They can already detect the virus that causes influenza and the bacterial toxins that cause cholera and food poisoning, including botulinism.



It is generally witnessed that with the advent of summer, diseases of abdomen, eyes and skin proliferate. Among the gastric diseases, cholera, diarrhoea, nausea and stomachache are commonly seen. Among the eye diseases, viral and allergic conjunctivitis happens to be widespread. Sunstroke is also common, inducing high fever. Therefore, in summer we should observe the summer regimen prescribed by Ayurveda to obviate above problems.

In summer the diet needs to be largely liquid. Water should be drunk copiously and more salt and sugar should be used in the meals to take care of these problems due to profuse sweating, lack of water, salt and sugar occurs in the body due to which one feels limp, sleepy and weak. Meals should be fresh, light and easily digestible. By just using boiled and cooled water for drinking purposes, one can preclude the possibility of cholera, dysentery and nausea etc. Excessively spicy and tart edibles like Poodi, Paratha, Pakoudi, Kachoudi and

Summer Regimen

Samosa and the like are best avoided in summer. The cut fruits sold in the bazar and also rotten or overripe fruits should not be eaten. Similarly, the market ice, kulfi and bottled cold drinks are proscribed because these are the sources of contagious diseases and the cold drinks contain harmful chemicals. It is much better and safer to drink homemade syrups of lime, mint or bael, Lassi, buttermilk, Pana of raw mango, Jaljira, Sattu etc. Use these things as much as you like. Bread, pastry and the like items from bakery should be avoided because decay sets in very soon in them. One or two hours of siesta in summer is highly salubrious.

Breakfast : For breakfast, syrup of bael, lime, apple or orange, buttermilk with salt and cumin powder, Lassi, sprouted gram, milk, tea or soup of vegetables are prescribed.

Lunch : Lunch should consist of bread prepared from fresh wheat, barley or gram, pulse of Moong or Arhar, old rice, green vegetables and salad of cucumber, Sattu may also be used as staple food.

Snacks : Watermelon, muskmelon, apple, cucumbers, grapes, pomegranate and other fruits should be used in the afternoon as snacks.

Dinner : The night meals should consist of fresh bread and bottle gourd, bitter gourd, luffa, Parval, pumpkin or ladies'

finger, Homemade ice cream, Kulfi and cold drinks are also recommended.

Summer Proscriptions : In summer, wines are proscribed. One should not put on gaudy coloured clothes. Polyester clothings are not good or comfortable in summer. Don't go in the sun without a cap and umbrella. Also don't go on an empty stomach. You must have light snack and sufficient water in your stomach to go out, otherwise sunstroke is feared.

Nausea and Dysentery : The diet should not be discontinued. Infants should be continued on mother's milk. Boiled and cooled water alone should be used for drinking. Add 2 spoons of sugar, a pinch of salt, one spoon of lime and mint juices to a glass of water and give little by little from time to time. This treatment obviates dehydration. Pulse soup, rice water, buttermilk, and ripe banana, coconut water should be given. Infants should be given the powder of the inner portion of Ativisha tuber, 200 mg twice a day with breast milk. This improves digestion and provides rehydration.

Infants above six months should be given 1/2 spoon ginger powder, 1/2 spoon jaggery and quarter spoon of clarified cow's butter, twice a day as a pill. In eye sickness, wash eyes with rose water and borax powder dissolved in pure clean water.

Water-Soluble Vitamins

Vitamin B, C and P belong to this class. Vitamin C is the main among these. In 1957 captain Lid felt that scurvy is cured by the use of juicy fruits like lemon and mozambique. Prior to this Columbus had experienced during his voyage to America that his sailors who used dry meat became too weak. Their teeth and gums began to bleed. Below the skin of their body black blotches were formed due to bleeding. They began to be infected with many diseases especially with cough & coryza. Columbus because extremely worried about this. But when they reached West Indies the sailors ate malta, orange, lemon etc. and soon they were relieved of their problems. This established the fact that juicy fruits contain anti-bleeding and anti-bacterial substances.

This vitamin is found in fresh fruits especially juicy fruits. Aonla is the richest source of this vitamin. One Aonla contains as much vitamin C as is found in two to three oranges. The vitamin content of Aonla does not get reduced by even boiling and drying. That is why it is used in the preparation of Ayurvedic Rasayanas like Chyawanprash, Brahma Rasayan, Amlaki Rasayana etc. which cure diseases and

increase immunity and obstruct the process of ageing. This vitamin is also found in tomato, lime, matta, mozambique, guava, papaya etc. Green Vegetables like cauliflower, cabbage, turnip, carrot, spinach, beans, green pepper, onion, choulai, fenugreek, Bathua also contains vitamin C. Even potato contain some Vitamin C and sprouted pulses and gram contain it in plenty. In non-vegetarian food it is found only in the subrenal cortex. In meat, fish and milk its quantity is too little.

This vitamin is destroyed by alkali and acid. It is also destroyed by boiling for long at 100°C. This vitamin gets lost by heating or drying of vegetables fruits.

Vitamin C is quickly absorbed by the mucuous membrane of the small intestine. It gets collected in small quantities in the liver, subrenal cortex, pituitary gland ovum and corpus luteum. The rest is discharged through the kidney. Infants whose staple food is milk usually exhibit Vitamin C deficiency. Hence they must have fruit juice in their diet. Its daily dose is 20-28 gm. Vitamin C is found in the fresh milk of those animals only that are fed on green fodder and gets destroyed by heating. So



Vd. Pramod Malaviya

the milk should be removed from flame as soon as it comes to a boil.

Functions of Vitamin C

- It helps in the metabolism of the body. As hydrogen carrier it helps in the process of oxidation inside the cells. In deficiency of Vitamin C secretion of insulin is retarded.
- It maintains the growth of bones and teeth. It also helps in the production of blood.
- It protects the internal membrane of blood vessels and thus protects bleeding from them. It protects the heart and coronary blood vessels and thus obviates heart attack.
- It helps in the accumulation of calcium and phosphorus in the bones. It also helps in the healing of wounds by creating connective tissues.
- It promotes assimilation of iron. Its deficiency causes deficiency of blood and the tendency of bleeding.

- It helps in the discharge of toxic matter from the body and to tolerate mental shocks.
- It helps to produce certain sexual hormones.

Deficiency Disease

Deficiency of vitamin C causes scurvy. In this disease bleeding occurs below the skin, over the bones, intestines, kidney etc. Children have pain and blotches in the legs. Gums bleed. Teeth and bones are deformed. Density of long bones is reduced and they become spongy and porous. Red corpuscles and platelets are reduced in number. The patient is rendered susceptible to bacterial attack, cold and coryza persist, boils appear over the skin and healing of wounds is delayed. Deficiency of sexual hormones precludes reproduction.

Vitamin P

This is also water soluble and found in all those substances that contain Vitamin C. This also contracts the capillaries of blood vessels and thus reduces their permeability and fragility. So it is used against the bleeding of capillaries. It enhances the efficiency of vitamin C. So this vitamin is useful in scurvy also.

*Department of Basic Principles
State Ayurvedic College,
Lucknow.*

Food and Dental Health

Eating is one of the fundamental functions of the body. Healthy teeth and gums are essential for chewing, which together with salivation ensure good digestion.

The following table shows

the rich source of calcium and phosphorus necessary for prevention of dental caries as well as remineralisation on the tooth surface which arrest dental decay.

Per 100 gms of Edible Portion

	Calcium (mgs)	Phosphorus (mgs)
Apricot (dried)	110	70
Bael fruits	85	50
Dates	120	50
Fig (dried)	126	77
Raisins	87	80
Carrot	80	530
Almond	230	490
Coconut	10	240
Groundnut	90	350

Apple, grape, lemon, papaya, pomegranate, carrot, onion, soyabean, tomato, spinach, asparagus all help the oral health, directly or indirectly. They help prevent gum disease as well as cure.

Raw vegetables, fresh fruits, fibrous foods are good detergent diets. A detergent diet serves two functions. The fibrous content helps better blood circulation in the gingiva (Oral Cavity) and secondly removes all the food debris and plaque between teeth and gums and leaves the mouth clean. A detergent diet will remove sweets and other soft food particles sticking to the teeth.

Here are the guidelines to promote dental health :

- Heavy breakfast, moderate lunch and light supper.
- Plenty of raw vegetables.
- End the meal with a fruit.
- Avoid eating between the meals.
- Avoid very hot as also very cold foods.
- Keep your mouth free from food particles.
- Brush after a solid meal and gargle after a sweet drink.
- Restrict sweets to once a week.
- Chewing the food thoroughly before swallowing is good for the teeth and also for the body.
- Supper, including milk, at least two hours before going to sleep.

Prophylactic Diet in Gastric Disorders

Life is closely related with diet. Life is not viable without food. Protein, carbohydrate, fat, mineral salts, vitamins and water are needed by the body to perform various functions.

Every individual becomes habituated to a certain type of food. One likes certain food items more, is averse to certain other items and is indifferent to some. One likes to eat in sickness those things which he likes in health. So a good physician prescribes the regime on the basis of the normal diet of the patient. Only those things are avoided which are likely to worsen the patient's state.

There are three gastric diseases namely Gastritis, Dyspepsia and Peptic ulcer. Gastritis or intestinal inflammation is a condition wherein the membranes of stomach have swollen. This is of two types, acute and chronic. Following are the causes :

- Infection by virus or bacteria.
- Consumption of polluted food.
- Use of pain-killers.
- Excessive drinking of wine or acidic foods
- Allergy
- Tension and worries.

Symptoms

Excruciating pain in the stomach, Nausea, Vomiting and Mild fever

Gastric disorders are named as Vatik shool, Paittik Shool,

Shlaishmik Shool, Sannipataj Shool, Aamaj Shool, Dwidoshaj Shool, Parinam Shool & Annadrava Shool in Ayurveda. The site of all of these is stomach. **Vatik Shool** is caused by excess of exercise, keeping awake at night, drinking too cold water, use of coarse things and bitter and pungent tastes, sorrow, fasting etc. are the main causes.

Paittik Shool occurs due to alkaline, very pungent, hard wines, spicy, sour & very hot things, anger, hard labour etc. by which Pitta becomes aggravated and is associated with burning, confusion, pain, sweating, coma, attachment etc.

Shlaishmik Shool occurs due to the consumption of aquatic meat, products of milk, Urad, sesame, Kachouri, Puri and the like Kapha-aggravating things. It is associated with nausea, tastelessness, constipation and heaviness in the head. The symptoms of **Aamaj Shool** are the same as those of **Shlaishmik Shool**.

Parinam Shool : This is termed 'Peptic Ulcer' in the modern terminology. Herein pain occurs during the digestion of the food. That is, the pain sets in after 2 or 3 hours of meal. It is associated with thirstiness, restlessness, sour belches, vomiting, nausea, coma etc.

Food in Parinam Shool

Starch processed with



Dr. Vaijayanti Varma

seasonse, jaggery, ginger and milk should be taken.

Proscribed in Shool

Exercise, intercourse, wines, salt, pulses, withholding of urges, sorrow, anger etc.

In general, in gastric problems, food should be such that it does not stimulate the stomachic membranes. For this milk should be taken in plenty, and fluids which are not stimulating should be taken, wheat barley, moong pulse, Kheera, raw coconut, coconut water, Ghee, milk with honey should be taken.

Behaviour : Breath control should be practised for the maintenance of peace of mind and dead posture is to be practised as well. Walking at regular hours in open grounds is a must. Water should be drunk in plenty. Try to be free from anger, sorrow, fear and worry. For this study of religious books, muttering God's name and meditation are highly wholesome.

Deptt. of Rasashastra
B.H.U., Varanasi

Management of 'AIDS' by Naturopathy

'AIDS' has emerged as a devastating fatal disease which has assumed the form of a large scale pandemic, sparing no regions of the people. HIV infection has created a serious challenge to medical and public health practice and even to the fabric of society. Modern medicine has not yet found a remedy to cure it or prevent it. Only the disease can be detected and its progress somewhat slowed. To stop the AIDS epidemic, the three evils should be fought viz., the virus, ignorance and prejudice. This could be done effectively by the methods of Naturopathy. To fight AIDS means to fight innumerable diseases at a single stretch.

According to the theory of naturopathy, it is the vital force which determines the health of individual. When the vital force or energy is weakened then the person becomes easy prey to different diseases. The body utilises its own natural forces to maintain health. A person remains healthy if the body is without any i8yyitoxic substances and all organs functions normally. When this is disturbed he becomes sick. This is what happens in the case of AIDS also.

If the body has become so weak it has to be built up with the help of nutritious foods after

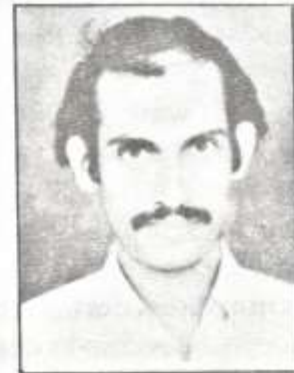
eliminating the unwanted poisonous elements.

AIDS is a group of symptoms caused by the diminished condition of the preventive and defensive mechanism of the body which is affected by some causative agent. With the deficient immune system, the patient is easy to be affected by any disease, under the slightest provocation. Then there is great chances of infection which must be avoided. This is possible by leading a good natural life, positive and healthy thoughts and conditions of mind and controlled life as far as sex is concerned.

Method of Treatment

AIDS is treated as other diseases in naturopathy; but with more intensive and cautious methods. These methods demands utmost patience from the part of the patient. The main items of treatment are the following :

1. Graded fasting for the first 15 days.
2. Restricted diet for the remaining 30 days.
3. Hydro therapy for 45 days; ie.
 - Full Immersion Bath for one hour daily two times, morning and evening.
 - Wet massage daily two times.
 - Wet pack to fall bath at intervals.



Dr. T. K. Abdul Razak

- Other baths like Hip bath, Spinal bath, Sivitz bath
 - Daily enema in the early morning
4. Sun bath for 30 days.
 5. Massage and Movement Therapy for 30 days.
 6. Music Therapy for 30 days. It is found that music therapy is useful for reduction of psychosomatic symptoms. It also helps the patient to regain the energy lost by an unhappy state of mind.
 7. Dhyana and Pranayama for 30 days.

Diet

During fasting only liquids, diluted fruit juices, tender coconut water, lemon juice and honey water may be given. After the first 15 days the following food items may be given depending upon the condition of the patient. The times, timings, measurements, form, combination, preparation and mode of administration may be decided taking into

consideration the specific physical and mental conditions and needs of the patient. The patient should be kept under the observation of the naturopath.

The following items are specially prescribed for AIDS patients.

(a) Fruits:

Orange, mango, banana, pineapple, papaya, grapes, apple, cashew apple, Guava, Sweetmelon, Emblic Myrobalan, Cherry, Apricot, Almond, Dates Mosambi, sapota, musk melon and sugar-cane.

(b) Nuts

Coconut, groundnut, cashewnut, manganut and waternuts.

(c) Roots

Carrot, beetroot, sweet potato, potato, sugarbeet and arrowroot.

(d) Vegetables

Snake gourd, cauliflower, radish, Long cucumber (Kadadi), beans, ashgourd, drumstick, Tomato, pumpkin.

(e) Leaves and grasses

Corander leaves, Tulsi, punarnava, bilwa, brahmi, Durva green, onion leaves, wheat grass, aswagandha, shatavari, spinach and lettuce.

(f) Sprouts

Fenugreek, blackgrain, alfalfa, mushroom, yeast, wheat, bamboo, ragi and sesamum.

Avoid

1. Meat, egg and fish
2. Tinned packed and other

3. Over-cooked foods.
4. Pickles.
5. Salts
6. Sweets.
7. Bakery items.
8. Ghee
9. Ice
10. Fried foods
11. Adulterated foods
12. Artificial foods.
13. Coloured items.
14. Sugar
15. Vanaspathi

16. Maida and other sticky foods.
17. Food prepared in fats and oils.
18. Chillies.
19. Tea and Coffee
20. Roasted foods
21. Drinks and smoking

All other rules of natural hygiene should be strictly followed.

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A Wonderful Health Food

Yoghurt or dahi has always been considered a wonderful health food. The special benefits of yoghurt lie not in its nutrition (although it is a nourishing food), but in the friendly bacteria which turn plain milk into yoghurt. The biggest benefit of consuming yoghurt is for people who cannot digest milk because the lactose in it gives them cramps or other digestive discomfort. The yoghurt bacteria themselves provide an enzyme which helps in the digestion of lactose.

Yoghurt is good for the rest of us as well. Researchers have known for years that it can prevent or at least reduce the severity of various infections that cause diarrhoea, thanks, once again, to the friendly bacteria. Once inside our system, they disrupt colonies of 'bad' bacteria,

preventing them from multiplying. Yoghurt also raises the acid levels in the intestines and creates an atmosphere that discourages bad bacteria.

Studies also show that yoghurt can reduce the digestive problems caused by antibiotics. Once antibiotics are on a microbe-killing spree, they also destroy some helpful microflora that normally protect us against infection. Yoghurt helps to re-establish this microflora.

Latest research suggests that yoghurt can strengthen our over-all resistance as well.

However, the benefits of yoghurt are found only in fresh yoghurt as we use it in India. Commercial frozen yoghurts are highly processed and may not have the same properties.

Contemporary Ayurvedic Developments

Pt. K. G. Gore, Lucknow

After Bhav Prakash, Kaviraj Vinod Lal Sengupta wrote Ayurved Vijnan during the last quarter of 19th century. The author endeavoured to include the modern medical knowledge also in the said book. The book was divided into four volumes namely, 1. Sutrasthan 2. Sharirasthan 3. Dravyasthan and 4. Nidan Chikitsasthan. The Dravyasthan included foreign drugs in use by then namely Isabgol, Senna, tea etc. Small pox was also dealt with. Nighantu Ratnakar of V.V. Godbole, Brihat Nighantu Ratnakar of Datta Ram Choube, Ayurved Samgraha of D. N. Sengupta and U.N. Sengupta etc. too became popular.

Gangadhar Roy wrote a scholarly commentary on Charak Samhita named Jalpa Kalpataru, wherein the philosophical aspect of Ayurveda has been thoroughly examined. Gangadhar Roy also composed several works on various topics of Ayurveda. He was a famous Vaidya of his times and his students were spread all over the country. Many of his students became very famous. Among these Harana Chandra Chakravarti wrote Sushrutartha Sandipan commentary on Sushrut Samhita. Yogindra Nath Sen wrote Charakopaskar

commentary. Jyotish Chandra Saraswati's Charak Pradipika and Jai Dev Vidyalankar's Hindi commentary are noteworthy. Atridev Vidyalankar, Ram Prasad Sharma, Bhaskar Govind Ghanekar, Dattatreya Anant Kulkarni and Lal Chandra Vaidya also have written commentaries.

During the modern period also many books were written among which Bhaishajya Manimala of Krishna Ram Bhatta, Siddha Yog Samgraha of Vaidya Yadavji Trikamji Acharya, Shaligram Nighantu of Shaligram Vaisya. Vanoushadhi Gunadarsh of Shankar Daji Pade Shastri, Ayurvediya Oushadhi Guna Dharma Shastra of Gangadhar Shastri Gune, Rasayana Sar of Shyama Sundaracharya Vaishya and Ram Mishra etc. are renowned.

Publication of Ayurvedic magazines also got initiated during the modern era. The first monthly magazine was published from Calcutta in 1901 by Sri Narayan Sharma Raj Vaidya. Subsequently many journals were published among which Sadvaidya Koustubha of Shankar Daji Pade Shastri, Sudhanidhi of Jagannath Prasad Shukla, Dhanwantari, Pranacharya, Anubhoota Yogmala, Ayurved, Swasthya, Sachitra Ayurveda, Ayurveda Vikas, Ayurved Maha Sammelan

Patrika, Ayurved Sandesha, Nagarjun are prominent. Apart from this annual magazines are being yearly published by the Ayurvedic Colleges of various states. Now-a-days Ayurvedic journals are being published in almost all languages wherein Ayurvedic principles are being discussed and new practical experiences are being related. These journals are popularising Ayurveda.

The descent of Ayurveda occurred to provide longevity to beings, preservation of their health, and removal of their diseases. So, from the very beginning the profession of Vaidya was encompassed in the spirit of service. Royal permission was required to practice Ayurveda. Pranabhisara Vaidya (excellent Vaidya) and Rogabhisara Vaidya (quack Vaidya) have been described in Charak Samhita. The former were venerable. Fee was also provided to Vaidya. The profession was passed from father to son. Later Gurukuls were established where students from many clans and places used to study under a single teacher. Both of these systems are prevalent still, however the traditional system is withering. Now there are very few Vaidyas who can boast of a tradition of practice. The change is due to the current educational

system. Consequently the intensity and utility of the knowledge and function are dwindling.

The Unani system of medicine was recognized in India after the establishment of Moghul regime. However Ayurvedic therapy continued under the Indian rulers and the public at large. The two systems being basically similar, both systems benefitted by the exchange consequently new drugs and experiments were inducted in Ayurveda. After the establishment of British rule allopathy was upheld by the government and hospitals began opening up. Even then the public and Indian rulers supported Ayurvedic therapy. Yet the onslaught of Allopathy was indomitable. Slowly the popularity and availability of Ayurved started diminishing. Medical colleges were also opened up alongwith hospitals and thus propagation of allopathic education also began in India.

The All India Congress passed a resolution in the Nagpur Congress in 1920 that the indigenous systems of medicine currently in practice should be developed. Consequently governmental committees were set up in various states and they advised the governments to open up colleges, hospitals and dispensaries. As a result Indian Medical Boards were established in U.P., Bihar, Assam, Andhra, Bombay, Kerala, Madras, Punjab, Rajasthan, Bengal, Delhi etc.

and even directorates of Ayurveda were set up in several states. Central Board has also been set up by now.

The current of nationality flowing in India during the 19th century also agitated Ayurveda. The need to unite the Vaidyas of India to rejuvenate Ayurveda was felt. The initiative along this line was taken by Shankar Daji Shastri Pade of Bombay who established Nikhil Bharatiya Vaidya Sammelan in 1907 and organised its first session at Nasik. After the demise of Vaidya Pade Pt. Jagannath Prasad Shukla took up his mantle and devoted his life to make the organisation countrywide and facilitated the rejuvenation of Ayurved. Thereafter Pt. Shiv Sharma actively contributed along this line. However being a 'Pure Ayurvedist' and due to the establishment of integrated education system in the country the movement languished. However, even to-day the branches of vaidya Sammelan in the various states are actively engaged in the development of Ayurveda.

The Ayurvedic education system underwent several upheavals during the modern era. Ayurvedic education was a matter of Guru-shishya tradition from the beginning. After the establishment of Vaidya sammelan Ayurved Vidyapeeth was set up in 1908 under its auspices with the aim of organizing & managing the Ayurvedic education on the national level. Thereafter Ayurvedic college was set up at

Ahmednagar in 1916. Subsequently Rishikul Ayurvedic College came into being in 1919, Gurukul Kangri Ayurved Mahavidyalaya in 1992, Yamini Bhushan Ashtang Ayurved Mahavidyalaya and Shyama Das Vaidya Shastrapeeth at Calcutta; in 1916, and Tibbiya & Ayurvedic College at Delhi in 1921.

Similar system of Ayurvedic education was established at Madras, Puri, Muzaffarpur and Patna as well. At Jaipur Ayurvedic education was being imparted since 1865 in the Sankrit College itself. By the passage of time a State Ayurvedic College was established there. In 1927 Ayurvedic College came into being at Banaras Hindu University. In 1946 Ayurvedic College was established at Jamnagar. Ayurvedic Colleges were set up at Gauhati and Patiala in 1948 and 1952 respectively. State Ayurvedic College was established at Lucknow in 1954.

Initially Ayurvedic education began as pure Ayurveda; However around 1935 integrated education was adopted through the efforts of Gananath sen and captain Srinivas Murthy wherein modern medical science was included in the syllabus alongwith Ayurveda. Thus, Ayurveda was relegated to the secondary place and graduates started using allopathic medicines and calling themselves 'Doctors' instead of 'Vaidyas'. This system caused several problems and

commotions and consequently in 1960 the Ayurvedic College at B.H.U. was closed. Again the 'pure Ayurved' wave blew as a reaction to the integrated system. During 1962 the Central Medical Board decided to promulgate the syllabus of pure Ayurveda. However the pure form was not to be. There was no uniformity in the curriculum of various states. After the establishment of Central Board of Indian Medicine, uniformity was achieved through its efforts.

The next step along the development of Ayurved was the establishment of Ayurvedic Post-Graduate Training Centre at Jamnagar in 1956 and thereafter Post-Graduate Ayurvedic Institute was set up at B.H.U. in 1963.

Initiative was taken in the field of research as well during the post-independence era and Central Institute of Research in Indian Systems of Medicine was set up in 1953. Central Council for Research in Indian Medicine and Homeopathy was set up in the year 1969. The Council was later split in 1978 into four separate research councils of i) Ayurveda & Siddha ii) Unani iii) Homeopathy & iv) Yoga & Naturopathy. At present research is being conducted on Ayurveda at the various Ayurvedic Colleges, Post-Graduate Institutes and Research Institutes, besides at the centres set up by the Central Council for Research in Ayurveda & Siddha.

Strengthen Jeevaniya Movement

Jeevaniya magazine is a part of Jeevaniya Movement which wants to spread message for disease free life by following healthy life style. We have appealed to our readers and well wishers to become Life Subscribers of Jeevaniya Magazine to strengthen the Jeevaniya Movement.

Responding to our call, several individuals have taken our life subscription. We sincerely thank our readers for reposing confidence in the Jeevaniya Movement. Address of some of our Life Subscribers are given below :

Maharashtra Prabodhan Seva Mandal, Mumbai, Sri V. V. Malla Reddy, Anantpur, Smt. N. Seth, Lucknow, Dr. C.S. Shanti, Lucknow, Uttama Giravani, Auroville, Dr. Anil D. Shah, Mumbai, Dr. T.D.J. Nagabhushan, Secundrabad, Delhi Voluntary Health Association, N. Delhi, Kerala Voluntary Health Services, Kochi, Mr. A. Kuber Singh, Imphal, Dr. Sreelekha Raj, Tripura, Mr. D. G. Bhat, Guwahati, Karnataka Voluntary Health Association, Bangalore, Meghalaya Voluntary health Association, Shillong, Tamil Nadu Voluntary Health Association, Madras, West Bengal Voluntary Health Association, Calcutta, Myrada Plan, Dharampur, Mr. Rajeeva Geenbaj, Mumbai, Sh. Satyabrata Das, Keonjhar, Dr. R. H. Godhka, Mumbai, Sh. S. S. Suresh, Mumbai, Sh. T.V. Ramkrishna, Kamata, St. James High School, Saranam, Dr. S.V.S.K. Reddy, Hyderabad, Mr. S. Lakshmanan, Mumbai, Mr. Jacob Daldzid, Ahmedbad, Dr. Navin Khanna, Delhi, Dr. V. B. Maihskar, Vadodara, Vd. V.P. Khadivale, Pune, Dr. Zafarullah Chowdhary, Dhaka, Mr. K. Ashok, South Kannada, Mr. Yogesh Rawal, Noida, Vd. B.S. Lunawat, Satara, Mr. S.J. Nallappan, Mumbai, Mr. Umesh Jaipuria, Calcutta, Nucleus Softwares, Madras, Nucleus Softwares, New Delhi, Dr. V. N. Joshi, Baroda, Foundation for Revitalisation of Local Health Traditions, Bangalore, Dr. M. Sudarshan, Mysore, Mr. Saurabh Navabia, Nasik.

Other readers are also requested to become Life Subscribers.

An Introduction to Diabetes

Dr. Eesh Bhatia

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Sanjay Gandhi Post Graduate Institute of Medical Science Lucknow.

Diabetes mellitus afflicts millions of Indians. While it was previously thought that diabetes is a disease mostly confined to Western countries, recent studies have shown that Indians have in fact a higher chance of developing diabetes. In fact, diabetes affects approximately 10% of adult middle class urban Indians and rivals heart disease as a cause for morbidity and death.

In general, there are two types of diabetes. The first kind is found mainly at a young age, which affects people of normal weight, and requires insulin for its management. This type of diabetes is known as Type I or insulin-dependent diabetes. The second kind of diabetes, which is by far the more common type, arises in middle or older ages, affects people who are over weight, and at least initially does not need insulin for control. This form of diabetes is known as Type II or non-insulin-dependent diabetes. Factors which predispose to this kind of diabetes include a positive family history of diabetes, overweight and sedentary habits.

The complications which can arise due to poor control of blood glucose are the same in both forms of diabetes. Thus diabetes can affect the eyes, kidney and nerves. In addition, because diabetes leads to increase in circulating body fats, it causes an increase in heart disease, stroke, and disease of the feet. It is important for us to remember that diabetes is a chronic illness. Though by various means it can be controlled, a life long effort is needed for this.

The treatment of diabetes varies with the type of diabetes. In both forms of diabetes attention first needs to be directed to diet and exercise. The recommended dietary calories vary according to body weight and occupation. The diabetic diet is like any ordinary diet. The only things which need to be avoided are simple sugars and extra fats. There is no need to avoid rice or potatoes. Exercise is strongly recommended because it not only reduces blood glucose but also improves blood pressure and decreases the chance of heart disease. The drugs need to be given in relation to the type of diabetes. Young patients will almost invariably need regular insulin injections. Older patients with diabetes can often be managed with diet and exercise or with oral tablets, which increase insulin secretion from the pancreas. However, it should be realised that even those patients who are originally managed on oral tablets may, with passage of time, require insulin injections. In addition to all these, it is very necessary for patients to regularly monitor their blood and/or urine sugars at home. This will help the doctor to decide their control and improve the management. Finally, knowledge of diabetes and its treatment is most important, since the patient and not the physician has the primary role in diabetes management.

Know about diabetes

Dr. B. S. Raheja

It is the most common belief that people are born with diabetes. But people are not born with diabetes through many have inherited susceptibility to the disease and this is aggravated by various faulty habits developed during life : faulty diet, sedentary life styles infections. Faulty diet has the maximum importance.

Although exercise is a part of routine for the patient of diabetes but diet has much more value. It is a myth that complex carbohydrates are very desirable for diabetics, but this does not apply to simple carbohydrates, such as simple sugars or glucose. Recent studies show it is the wrong type of fat which may have a greater adverse impact than even simple sugars.

Diet

People believe that cholesterol-free, ultra-refined oils are better than the traditional Indian ghee, mustard oil and coconut oil. Again it is wrong to think so. Refined cholesterol free oils are the most refined ways to give subjects a heart disease. They do not protect. Instead they give various diseases. While formerly in India, when we were using the traditional fat, India had the lowest prevalence of diabetes, heart ailments and some cancers. But today, we have one of the highest prevalence of all these. Now a days people find that Junk food

is very convenient and good for health. Junk foods would put the health into the 'Junk Bag' and this may be the best way to get diseases. All protective items from natural foods are thrown away and only junk is left and consumed. Sometimes blindness is associated with diabetes.

A diabetic can live at least a normal life without these problems on a well regulated diet.

Fact : It is a fact that diabetics have a higher susceptibility of heart attack but a well regulated regime is the proper protection.

People are sometimes heard saying that diabetic should not eat foods like rice and potatoes? of course, taking of any food in excess is always harmful.

Alcohol and smoking both have adverse effect on general health. These can damage the eyes, heart, lungs & kidney and can even produce some cancers. All these are more common in subjects with diabetes.

Exercise

Walking brisk is the best exercise for a diabetic. It should be encouraged, provided the diabetic doesn't feel exhausted at the end of it.

The onset of diabetes can be avoided or delayed if detected in its earlier stages. *

Home Remedies

Methi is good for diabetes as it provides PUFA-3 which is

normally in deficit in our diet.

The common Indian diet of dal, rice, roti, vegetables, curd and milk is enough to meet our body's all requirements. But we need extra fruits and little PUFA-3 which normally will not come from this type of diet. We may need a small amount of fish but certainly meat or eggs are not needed. The normal Indian diet of rice, chapati, dal, milk/curd provides all types of proteins needed by the body. A small quantity of milk or curd added to dal and grains will meet the full requirement of proteins.

Jeevaniya Distributor

We are happy to inform our readers that Jeevaniya English Edition is now been sold to vast network of Higgins Bothams in South India.

In Delhi, Bombay and Calcutta, the magazine is distributed by Central News Agency.

Offers are open for distributorship of Jeevaniya Hindi & English for some parts of India.

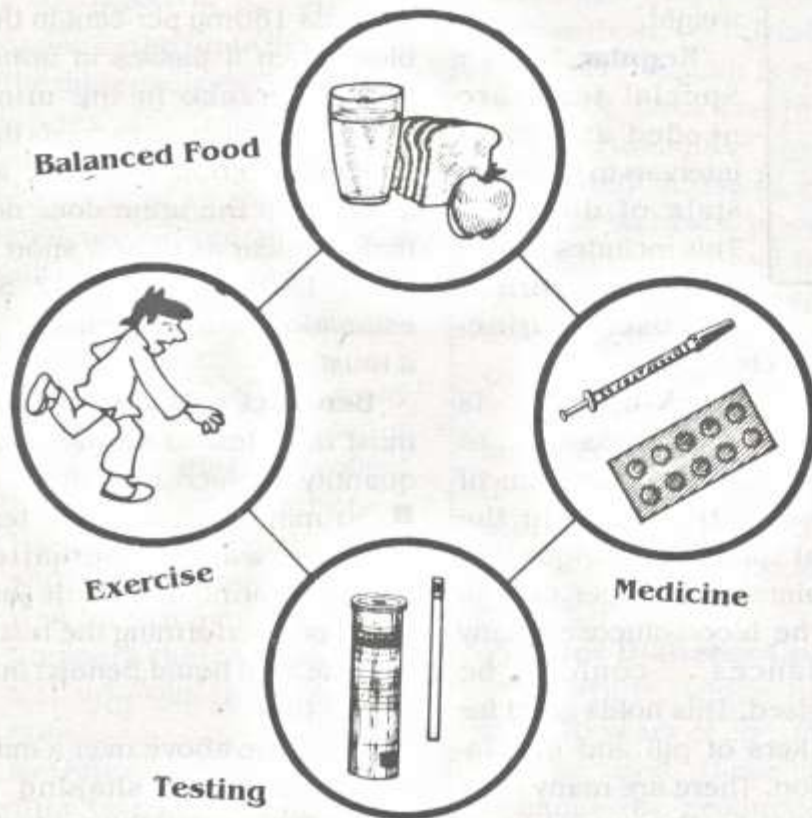
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Diabetes : Diagnosis and Management

Dr. Eesh Bhatia



Four Principles of Diabetes Treatment

Many men are diabetic in India. However, a diabetic can live a normal life. For this it is must that the patient should take caution & care of his food and medicine.

What is Diabetes?

Diabetes is a condition wherein production of insulin in the body is insufficient and due to this the body cells fail to convert the food into energy.

The food we eats gets converted into glucose in the intestines and gets into the blood. When the concentration of glucose in the blood increases then it forms insulin in the pancreas which again takes glucose from the blood and helps to carry it to the cells. The glucose is converted into energy finally in the cells.

In cases of diabetes,

sufficient amount of insulin being not available from the pancreas, the concentration of glucose in the blood continually increases and glucose is not able to enter the cells directly. Thus the cells start dying even when there is plenty of glucose.

Consequences of Excess of Glucose in the blood

- Body cells cannot convert the glucose into energy and as a result patient feels extremely tired.
- Glucose passes in excess with the urine and urination is increased.
- Due to excess of urination dehydration occurs in the body and one feels thirsty.
- Due to deficiency of water or conversion of fat into glucose loss of body weight occurs.
- In the absence of insulin the food is not converted into energy and hunger rises.

Types of Diabetes

Insulin-dependant Diabetes: The above type generally sets in the early life. Such people cannot produce even a little of insulin. Hence the patient needs to take insulin injection everyday to reduce the quantity of glucose in the blood.

Non-Insulin Dependent Diabetes : This type usually occurs among the above forty. In this condition, some insulin is formed but the cells are not



Test Strips for Glucose & Ketones

able to use it properly. This type occurs mainly in obese persons and improves with the reduction of body weight. This type may be treated with pills.

Treatment of Diabetes : It is absolutely necessary to maintain the normal quantity of glucose in the blood to maintain health. If it could be done then the possibility of problems due to diabetes may be reduced. You have to observe the following points in order to remain fit and fine.

Food : Balanced food is essential in the treatment of diabetes. The items and quantity depend upon your weight, height and profession.

Insulin : In case of insulin-dependant diabetes the body is not able to produce insulin hence insulin should be supplied to it daily through injection.

Pills : In diabetic of advanced age, the pancreas

may be activated with pills to produce more insulin.

Exercise : Exercise is necessary for all as well but a must in diabetes. Diabetic patients on exercise need less of insulin and also loose weight.

Regular Tests : Special tests are needed at regular intervals to know the state of diabetes. This includes blood-glucose, urine-glucose, urine-

ketones etc.

Self Check-up : It is absolutely necessary to maintain the concentration of glucose in the blood in the normal state. It is obvious that by maintaining proper control over the blood-glucose, many imbalances could be minimised. This holds good for the takers of pill and insulin-injection. There are many tests to measure the quantity of glucose. Some tests could be done by individuals at home and others could be done in the laboratories only. It is essential to measure the quantity of glucose in urine and blood on one's own by the patient.

Symptoms of Excess of Blood-Glucose : There are many symptoms indicative of diabetes being totally out of control. The patient passes urine at short intervals, is very thirsty and very weak. One must remember that these are the

late symptoms when the concentration of glucose in the blood is too high. Therefore, patient should need not wait for the appearance of worsened symptoms and take increased amount of injection or pills to fight disease.

Glucose in Urine : Glucose rises in the blood due to the deficiency of insulin. When it exceeds 180mg per cent in the blood then it passes in urine. Its appearance in the urine means that glucose exceeds the limit in the blood. However, its absence in the urine does not make it clear as to how short it is of 180mg per cent? So estimation of blood glucose is a must.

Benedict's Test : It is the most used test to measure the quantity of glucose in urine.

- 30 minutes before the test make water. Thereafter collect urine in a bottle just before performing the test.
- Take 5 ml liquid Benedict in a test tube.
- Warm the above over a mild flame. While shaking it carefully so that the contents do not spill out.
- Before boiling infuse 8 drops of urine into the Benedict's liquid.
- Further heat till the contents boil while shaking the test tube from time to time.
- Cool and note the colour.

Colour	Percentage of glucose
Blue	0
Green	0.5
Yellow	1
Orange	1.5
Red over	2

Test Strips : Diabetes, Ketodiastics or Glucatur test strips are used to measure diabetes. These may be obtained from medical shops. Though these are costlier than Benedict's test these are more comfortable. However we can reduce the cost by bifurcating the strip longitudinally. When the chemical in the strip is dropped in the urine the colour of the urine changes. The colour changes according to the quantity of glucose in the urine. The container of the strips is pasted on the outside with a chart showing the amount of glucose corresponding to the colour of urine.

- Make water half an hour before the test. Thereafter again pass urine and collect it in a glass bottle for the test.
- Dip the test strip in the urine and take out immediately.
- Wait for half a minute.
- Compare the colour of the test strip with the chart and note.

Ketones in Urine : When insulin is too deficient (as during fever or some other illness) then the body starts converting the fat into ketones. Occurrence of ketones in the urine could may prove a very serious matter. You must consult a physician in such a condition.

Ketodiastics or Glucatur test strips are available to measure the ketones in the urine. When these are dipped in urine then they change into violet in the presence of ketones. The method of using ketodiastics is as follows:

Modern Medicines in Diabetes Control

Diabetes is of two types

- Insulin Dependent Diabetes (I.D.D.M.) and Non-Insulin Dependent Diabetes (N.D.D.M.). Insulin is a must in IDDM because insulin production has stopped completely in this type, like juvenile diabetes. In case of NDDM, production of Insulin is reduced. This type of diabetes may be cured by control of diet and change in lifestyle i.e. inclusion of yogas and exercises in daily routine. If diabetes does not come under control within 2-3 weeks from tablets, insulin should be used.

Pills for Diabetes Control

In NDDM, which occurs after 40 years of age, tablets may be used. These tablets enhance the production of Insulin and make body tissues more sensitive to insulin. While using tablets, diet should be taken as told by doctor and at proper time. Tablets are used in the patients where blood glucose levels are not much and there are no chances of ketosis.

Precautions

- Tablets should never be taken in cases of IDDM as in case of Juvenile diabetes.

- These tablets should also not be taken in NDDM cases where any complications have arisen or patient is suffering from a serious disease or surgery is required.
- Pregnant ladies should not take these tablets.
- Use of tablets should be stopped in patients where quantity of urine is reduced very much or another disease of liver has been found.
- Diabetes tablets can not replace the need for control on diet or correct life style. So, adequate control on diet and correct life style must be followed while taking tablets.

Insulin Therapy

Insulin therapy is the only course left in case of IDDM patients and in NDDM patients where tablets have not been effective. Insulin can only be used as injection because liver will decompose, if taken orally.

Insulin injection should be taken very carefully on the advice of doctor only. Doctor's advice should be followed in the matter of diet and exercise also.

- Collect the urine in a glass bottle.
- Take out the strip after immersing in the urine.
- Pat the strip lightly to let fall any drops of urine attached to it.
- After 15 seconds compare the colour of the strip with the colours depicted on the bottle and note in a diary.

Glucose in Blood : The test of blood glucose is more useful than the test of glucose in the urine. This reveals the exact amount of glucose in the blood. Knowing this one will be more keen to normalise it. The other benefit of the estimation of blood glucose is that it can reveal the deficiency of blood glucose (less than 60 mg per cent).

Blood glucose may be estimated in the laboratory or on our own at home. When you do it in the home then you can measure it at different hours at will. This will facilitate the physician to change the insulin or pills. Measuring the blood glucose of persons taking injections of insulin is more important because their blood glucose may vary soon.

To measure the same one drop of blood is infused over the chemical of the test strip. The drop of blood is taken from the finger. The colour of the strip changes. The colour is compared with the help of the chart depicted on the bottle.

Two types of strips are available in the market, haemogluco test (readable over the glucometer).

Time of Measurement : If you are an insulin-dependant then you must measure the glucose daily before and two hours after the breakfast and supper. When the diabetes is well under control then you may reduce the number of tests with the concurrence of the doctor. However during fever or other illness the blood glucose should be measured after every six hours because in such conditions the glucose level tends to rise.

If you depend upon pills then measure before and two hours after the breakfast and supper any two days in the week. The quantity of glucose should be noted in a diary to be shown to the physician.

The blood glucose estimation must be undertaken by those who are above 40 years of age and have bloodpressure, heart disease or

are overweight.

There is no sure medicine for diabetes that can cure it completely. However, the grown up patients of diabetes can control their diabetes without any medicine provided they reduce their weight and control their diet.

Now it has become possible to provide the patient of diabetes with an additional new pancreas by surgery. The consequences of such operations are hopeful and future diabetics may derive the benefits thereof. Apart from this there are machines available now which can measure the glucose and accordingly supply insulin to the body. Thus glucose is maintained at a normal level in the blood and the use of frequent injections is precluded. Research is going on to find out a drug by which diabetes could be eliminated.

Amount of Glucose	Before breakfast and meal	After breakfast and 2 hours after the meal
Blood	70-120 mg per cent	120-180 mg percent
Urine diestics	0	0 or 1+
Benedicts	Blue Colour	Blue or Green

Next issue of the Jeevaniya will

focus on Diseases of

Ear, Nose & Throat

besides

other articles and regular columns

Diabetes, Pancreas and Insulin

Pancreas is the abdominal part related with digestion and metabolism. It has been believed to be the chief site of Pitta and Charak has included it in the Nabhi Koshthang. Some Acharyas have named it as Agnyashya and related it with Jatharagni and Antaragni. The external secretion emerging from it completely digests all parts of food. An internal secretion also emerges from the cells of islets of Langerhans. The cells are ductless and these are situated mostly in the tail end of the pancreas.

In adults, the cells number from two to twenty lakhs. The cells are of three types - (1) A2 Cells which secrete Glucagon which increases the quantity of sugar in the blood. (2) A1 Cells which release Gastrin (3) B Cells - these produce insulin and are related with diabetes. This insulin controls blood sugar and creates energy in the cells by oxidising the sugar in the presence of oxygen.

Due to various causes the B cells of pancreas become depressed and do not produce sufficient insulin necessary for the metabolism of food. This phenomenon increases blood sugar and metabolism being deformed the various acidic toxins reach the blood circulation and deform the alkalinity and utility of blood. Due to this, the function of the

vital parts is distorted and the person advances towards death. This phenomenon is called diabetes.

Diabetes and Insulin

Insulin is a protein hormone which controls the blood sugar. It converts the blood sugar into glycogen and collects it in the liver and muscles. Insulin oxidises blood sugar in the tissues and produces energy. Deficiency of insulin in the blood creates hyperglycaemia, glycosuria and ketosis which are symptoms of diabetes.

The insulin assumes crystal form with zinc and collects in the B cells. When required by the body the zinc atom is separated and insulin goes into the blood.

Insulin promotes the dissolution and oxidation of sugar in the tissues and conduction of glucose in the cells. Tissues cannot use the glucose when insulin is deficient, it is not even oxidised and the permeability of glucose in the cells is also reduced and consequently sugar in the blood increases.

Insulin helps in the conversion of glucose into fatty acid into fat in the liver and accumulation in the body. It reduces the quantity of cholesterol and fat in the blood and obstructs the over accumulation of fat in the liver and dissolution of fat in the fat tissues.



Vd. P. C. Jain

Treatment

In Ayurveda, the treatment for such diseases is 'Nidana Parivarjanam' i.e. avoidances of causes of disease. In order to achieve it the patient must know fully well about the disease. Charak has classified the patients into two groups. (1) strong and fat patients who should be treated after rectification through Panchakarma. (2) Weak and lean patients who should be treated through samshaman Chikitsa. Sushrut also has classified the patients into two classes. (1) Hereditary tendencie - such patients must be kept on a strict regime of food and behaviour from the very beginning (2) diabetes due to wanton diet the patients must be rectified prior to treatment.

Food Regime

The real treatment of diabetics is food regime. The food must be regulated according to the energy needed

by the body. Generally, the diabetics need 1200-1800 calories. For this, the balanced diet would be 300 gm carbohydrates 80 gm. proteins and 30 gm fats. Carbohydrate can be had from barley, wheat, gram, millet, maize etc. Protein can be had from fatless milk, curd, lentil, pea, and kidney bean (urad). It is better to give up animal proteins and have plant proteins instead. Use oils containing polyunsaturated fatty acid such as mustard, sesame, coconut, groundnut, and sunflower, green vegetables and fibrous things are recommended.

The diabetics must give up sweet substances like potatoes, sweet potato, sesame, clarified butter, butter cream and cheese. They may take Sattoo, Kodo, Moong, spinach, fenugreek, carrot, radish, Aonla, onion, lime & tomato. They should give up sweet and sour things.

Exercise

Exercise is a must for the diabetics. They must either swim, walk, massage or perform yoga daily. They should walk at least 2-3 km daily. Controlling diabetes through diet regime, exercise and yoga is the only reliable course of action for the diabetics. As mental perturbation assists in the increment of blood sugar, the same should be avoided and the patient should lead a peaceful life with peace of mind.

Medicinal Therapy

Two symptoms in diabetes

are treated medicinally, namely (1) The increased blood sugar and (2) weakness. Many drugs are found efficacious in the treatment of former. They are saptarangi, Gudamar, Bael leaves, Jamun leaves and stone, bitter gourd juice, fenugreek seeds, Neem oil, vajaisar, banyan bark, Mamajjak etc. have been found useful in reducing the blood sugar of

various systems. Other medicine which arrest the depletion of Ojas and remove the weakness due to diabetes include vasant Kusumakar Ras, Chandraprabha Vati, Shiva Gutika, Trivang Bhasma, Saptarangadi Vati, among the chief of such medicines. These medicines and proper regime should be undertaken as advised by the physician.

Back Issues of Jeevaniya

Jeevaniya is not merely a magazine, it contains scientific information about health care which is the essence of many treatises and practical experience of our learned physicians.

Following issues are available for all those inquisitive readers who would like to have them.

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Mental Factors in Diabetes

Dr. Ayodhya Prasad Achal

Mental factors play a significant role in the genesis, growth and management of diabetes. Mental factors are closely related to the glandular system which in turn, is closely related to diabetes.

The main cause of the genesis of diabetes is a sort of defect or imbalance in the function of the glandular system. This imbalance is closely related to the urges. The defects or imbalance in the urges create aberrations in the functioning of glands too. For example the adrenal gland gets overactivated in fear. Greater the fear greater in proportion is the activity.

The secretion called adrenal occurs in excess in the blood vessels and causes a general constriction in them. The increase of the proportion of blood sugar causes uneasiness, restlessness and fever in beings. Muscles are weakened. Usually such symptoms are observed in those who are incessantly tortured by fear, worry and psychic nervous problems. Similarly those who are prey to anger have increased secretion of noradrenaline. It extracts sugar from the liver only and not from the muscles. The muscles use the blood sugar in the usual

manner even in anger. That is why one feels enhanced power in an angered state..

Mental Work and Fatigue

Some people think that excess of mental work or fatigue is deeply connected to the genesis of diabetes. But this generalisation is not true. Generally only those among the mental workers and intellectuals contract diabetes who work most of the time in a sedentary fashion and do not undertake any manual work or exercise. Who eat plenty of sugar, carbohydrates and greasy things or have some other disease. Maharshi Charak has clearly stated that Prameha quickly accosts those who are greedy eaters and reluctant to bathe and walk just as birds fly towards the tree where their nests are situated. Ayurveda believes Madhumeha to be a type of Prameha.

So it is obvious that the real cause of diabetes is voraciousness, lack of industry and incontinence of food and behaviour. Such lifestyle is common amongst the intellectuals.

Development of Diabetes

There are three stages of diabetes namely, Poorva Roop

Roop and Ugraroop.

Poorva Roop (Prior Symptoms) : The main psychic symptoms of Poorva Roop are laziness, recklessness and depression.

Roop (Symptoms) : If timely cure is not provided after the rise of Poorva Roop then the disease assumes its real form and becomes manifest. And symptoms of laziness, tastelessness voraciousness, sleeplessness and coma begin to appear. Working capacity is reduced. Weakness overtakes the sense organs. Difficulty in hearing, seeing and touching is felt. Forgetfulness increases. Fickleness of mind grows. The patient loses his balance of mind over trifles. He becomes prey to all sorts of imaginary diseases. Even a slight indisposition upsets the mind of the patient and he incessantly grumbles about it.

Ugra Roop (Serious Symptoms) : If the disease has assumed a serious form then the vessels of brain may burst (brain haemorrhage) and coma may cause even death.

Treatment

Psychologically three things are of utmost importance in the treatment of diabetes namely, correct diagnosis, preparing the patient mentally to face the disease and the

actual treatment.

Proper Diagnosis : The physician should endeavour to find out at first whether the patient has really diabetes or has merely doubted it. If it is a matter of doubt then it should be dispelled. He should be informed of his real state of health. If he has got hold of his disease due to some psychological reason then his mental complex should be found out. Without purgating that complex no success is likely by mere suggestions and recommendations. This could be achieved by a successful and experienced psychiatrist only.

Cheering up the Patient : If the patient is really suffering from diabetes then he should be mentally prepared to face the disease. His mind should be freed of misconceptions, unnecessary fears and apprehensions. He should be convinced that he can lead a successful life like other normal people inspite of the disease. If the disease is controlled by means of the vast knowledge about it, then one can lead a long, useful and healthy life. Ravindra Nath Tagore and Bal Gangadhar Tilak may be quoted as illustrious examples of this fact.

Psychological Treatment: Three things are of special importance in the psychological treatment of diabetes : Protection from mental conflicts and tensions - As far as possible, let not happen things that can psychologically upset

the patient. He should be made to practice the constructive impulses. He should learn to conquer fear with daring, anger with pardon and peace, enmity with friendship and greed with non-greed. These should be practised everlastingly.

His wrong attitudes regarding life, the people about him and things should be changed. To achieve this his surroundings may be changed. Change of place and climate may be advised.

Control over wrong habits of food and behaviour - Great caution is needed in this regard. Diabetic patients have enhanced liking for spicy food. Many of their habits assume the form of obstinacy. He can't give them up even if he wants to. The doctor should reveal the true form of his habits to him. His discretion should be rejuvenated and slowly his wrong habits should be replaced by right ones. As far as possible no mistake should be allowed to occur in this. Many patient of diabetes feel improvements in themselves by the change of habits of food and behaviour.

Encouraging Manual Labour : A diabetic patient must be extolled to undertake physical labour. Walking in the mornings in the open air, light exercises or yogic postures may prove of special benefit to the diabetes. Vagbhat has stressed the need of physical labour in the treatment of diabetics. According to him a poor patient

should walk barefooted and bare-headed for over 800 miles as a mendicant. He should live with the wild animals eating only fruits and tubers. He should roam with the cows. Lean persons should be strengthened by food which may not cause kapha or obesity. In short he should walk on foot for miles and miles and should work hard. He should live in close vicinity of nature and eat natural food like fruit, tuber and root.

The following yogic postures and breath control practices are especially useful to the diabetics - *Surya Namaskar, Tadasan, Yoga mudra, Shashankasan, Supta Vajriasan, Pashchimottasana, Bhujangasan, Halasan, Matsyasan, Ardha Matsyendrasan, Gomukhasan and Sarvangasan.* Among the breath control measures *Nadishodhan Pranayam, Bhramari, Ujjayi* are wholesome and practice of dead pose is needed to provide rest and peace to the mind and body.

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The Regimen of Diabetics

In diabetes, the regime should be prescribed according to the age and weight of the patient. His daily habits also must be carefully looked into. The patient should not be given things containing saccharides to eat. Sweet things must be stopped immediately. The patient should not take calorie-rich food, however, for the required energy a limited quantity of food must be given in small doses in many instalments.

Obese patients must reduce their weight, by reducing diet. In order to keep the blood sugar in check, the patient should take only measured quantity of food. By this, they may keep the dangers of diabetes at bay.

Cereals: *Estimated calories 350 per 100 gm.*

Wheat flour, porridge, Cooked rice, Idli, Dosa, Millet, Barley, Jwar may be taken. Wheat is more proteinous than rice. All cereals except rice being very fibrous are digested slowly. Maida should not be used because it happens to be too finely powdered and has minimum fibre content.

Rice contains starch in plenty and is easily digested and consequently increases blood sugar fast. So rice must be taken in small quantities with Dal or Vegetables.

Pulses: *Estimated calories: 350 per 100 gm.*

Moong, Urad, Arhar, Masoor, Chana, Rajma, Lobiya, Kabuli

chana etc. may be taken - 100gm of each of these contains 20 gm of protein and sufficient fibre content as well, provided the pulses are not skinned. The pulses are digested very slowly and as such they do not raise the level of blood sugar.

Vegetables: *Estimated calories : 20 per 100gm.* vegetables are classified into two types. The first type includes those that are used as salad such as, Kakri, Kheera, tomato, onion, radish, turnip, cabbage etc. The other type includes the green leafy vegetables and all seasonal vegetables. Among these mustard, spinach, fenugreek and Bathua are beneficial. Among seasonal vegetables bottle gourd, round gourd, Kaddoo, Taroi, bitter gourd, bean, parwal, Kamal Kakdi, ladies finger, cauliflower, carrot and mushroom are useful.

Vegetables contain plenty of fibres and minimum of calories. So these must be used in plenty. The patients of diabetes must eat leafy vegetables and green vegetables. However, they must not eat colcasia, sweet potato, potato, beet-root etc. in abundance. The patients must be given 250-400 gm vegetables daily.

Fruits: *Estimated average calories : 80 per 100 gm.*

Diabetics may eat 70 calories of fruits. Fruits may be taken at will with meals or

otherwise. Fruits contains vitamins c, fibre and mineral salts in plenty. It is better to eat whole fruits than drinking their juice. Fruits contain sugar in the form of fructose and have no fats and protein. However the diabetics must not take banana, grape, mango and cheeku because these are highly starchy.

Milk and its Products: *Estimated calories : 70 per 100 ml.*

Milk is an ideal mixture of carbohydrates, protein, fat and vitamins. Skimmed milk is more suited to the diabetics. Such milk is called 'toned milk' as well. Milk may be taken as cheese, Lassi, curd or butter milk. Half litre of milk is sufficient for the diabetes, which should be taken unsugared.

Edible oils and fat : *Estimated calorie : 900 per 100 gm.*

Diabetics should not take fried things like Poori, Kachouri, Parantha, Samosa, Bhatthoora, Malpooa because these have excess of calories. Ghee and butter is to be taken as little as possible because these have saturated fats in excess as well. Saturated fats in excess are also found in vegetable ghee, coconut oil & palm oil. So mustard, sunflower sesame and groundnut oils should be preferred as these have less of saturated fats.

Vegetarian Diet: *Estimated*



Problems of Juvenile Diabetics

Although Diabetes amongst children is not prevalent like adults, many juvenile diabetics suffer throughout their lives. It is a matter of grave concern that numbers of juvenile diabetics are increasing in India and more than 5000 such cases are in Mumbai alone.

A child becomes diabetic mainly due to absolute deficiency of insulin production in the pancreas of the child. The course of diabetes in a child is not hereditary but due to a combination of factors like hereditary-predisposition,

vulnerable insulin producing cells, certain type of viral infections, tonic substances in the atmosphere etc. The hereditary factor alone is not likely to put a child in diabetic state.

If blood sugar increases too much, it may result into Diabetic Coma. Usually juvenile diabetes is detected in poor families only at this stage because other symptoms of diabetes are neglected as weakness. Even at the stage of diabetic coma in poor families it may be taken as Hysteria for which traditional treatment is to put onion juice or a shoe to the nose of affected person.

In the initial stage, the parents of juvenile diabetics first reaction is either in the form of a quite feeling, anger, hopelessness, confusion, denial and resentment. They also convey these feelings to their children. The parents require reassurance, education and support.

The management of juvenile diabetes is not only prescribing an insulin dosage and diet regimen but also making a team effort, the team should consist of a diabetologist, psychologist, psychiatric counsellor, nutritionist, educators and responsible family members, this type of team get good results which go beyond any individual efforts.

The daily insulin injections and the frequent monitoring of

blood sugar levels are painful and costly. On an average the cost of insulin therapy, monitoring strips and syringes costs more than 50 rupees per day. This economic burden goes on increasing as the age advances. This is the reason behind Intimely death of many juvenile diabetics.

Our country does not have any social security system to provide insulin to poor juvenile diabetics at subsidised prices. Social organisations working for the betterment of diabetics are raising demand to subsidise insulin price but in our country insulin is not included in the life saving drugs, although it is as necessary as food and air for juvenile diabetics. Upto now a misconception was prevalent that diabetes effects rich persons who do not work physically and eat nutritious diet. It has been found that malnourishment is also a reason of diabetes and many juvenile diabetics are found amongst the poorest people.

Our society does not deal properly with juvenile diabetics and they suffer continuous mental harrasment. Juvenile diabetics are discriminated in case of employment and even diabetics do not marry their son or daughter to juvenile diabetics. To spread knowledge about diabetes amongst common people, more and more voluntary agencies have to come in this field.

→ *calories : 200 per 100 gm.*

Calories vary with the non-vegetarian dishes. Uniform quantity of calorie energy is not obtained from the flesh of various animals. Hen and fish have a little of saturated fats whereas the same abound in goat, pig, cow, etc. The quantity of cholesterol is more in the liver, kidney and brain. So the diabetics should take only white meat (birds and fish). However, vegetarian diet is by far the best diet for the diabetics.

The diabetic patients should take food as per following schedule:

Breakfast 7 to 9 A.M.

Light report 10 to 11 A.M.

Noon meal 1 to 2 P.M.

Light report 4 to 5 P.M.

Supper 8 to 9 P.M.

Diabetes - A Major Health Problem in India

Banu Priya & Pillai, K.S.

Incidence of diabetes is steadily increasing in our country. As per a survey conducted in India in 1977 by the Indian Council of Medical Research, about 20 lakhs of Indians are affected by diabetes. International Federation of Diabetes and World Health Organisation point out the steadily growing incidence of *Diabetes mellitus* and introduced it as a broader based non-communicable disease control programme in 1989.

Diabetes mellitus in Greek means 'siphon sweet'. *Diabetes mellitus* was known to ancient Indian physicians as 'Madhumeha'. It is caused by a metabolic disorder due to the lack of insulin or surplus of insulin antagonist. Diabetes can also result as a hereditary disorder which passes on from one generation to another. They are generally classified into three types; Juvenile diabetes (absolute deficiency of insulin), maturity onset type (action of insulin is not exerted) and secondary diabetes (antagonists of insulin are more, leading to lack of insulin). Secondary diabetes may occur due to the lack of hormone like vasopressin resulting in *Diabetes insipidus* which is characterized by excretion of

large quantities of urine (polyuria) and a marked thirst (polydipsia).

Treatment of these diseases are known from ancient times. So many herbal products and several metals and minerals have been described for the cure of diabetes in ancient literature. It has been shown that diabetes patients are more vulnerable to health problems caused by environmental contaminants. Studies carried out on laboratory animals have shown that diabetic rats magnify the toxicity of the pesticides.

Another investigation carried out in our institute (FIPPAT) has shown that intake of fluoride by diabetic rat manifests the toxicity of fluoride considerably. It should be borne in mind that, in India 40 million people are exposed to abnormal fluoride level in the environment.

India holds one of the richest and diversified ethnobotanical tradition in the world and there is always a place in every village where people have a free access to traditional treatment. In almost every state of our country, both rich and poor, depend on traditional medicines which are mostly of plant origin, for treating various ailments. Ayurveda has been the first to give an elaborate

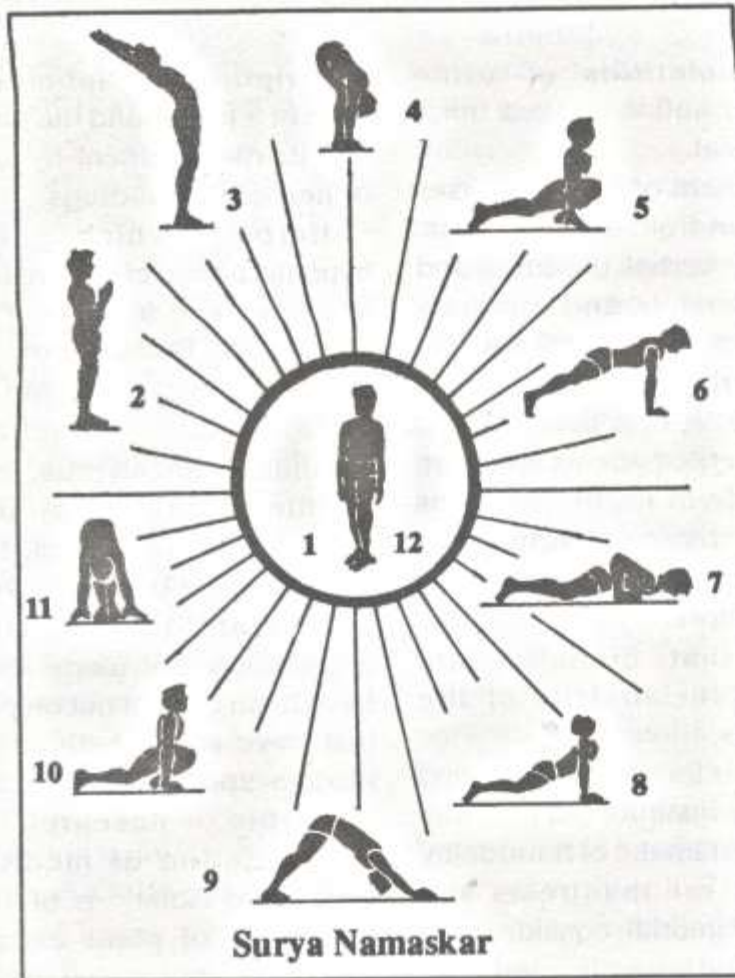
description of diabetes, its clinical features and the pattern and its management by herbal or herbomineral drugs.

Herbs which exert hypoglycaemic effect are found in abundance in India. Plants like onion, Thulasi, cow pea, Shilajeet, Guggul, banyan tree, fenugreek, blackberry, celandine, eucalyptus, lady's mantle, seeds of coriander, dried berries of juniper, bulbs of garlic have been reported to possess antidiabetic effect. Surprisingly not many studies have been carried out on plants that have antidiabetic effects, though sporadic reports are available. Research on identification of medicinal plants and isolations of active principles of plant extracts, which are said to be effective in bringing down blood sugar have to be encouraged. These could be a better solution than the allopathic drugs, close at hand, useful to mankind not only in India but all over the world.

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Yogic Therapy of Diabetes

R.K.Singh Rathor



Attainment of Dharma, Artha, Kama and Moksha is possible through a healthy body only. Our sages propagated Yoga for the public good with this point of view. In the present era, the man having entered the scientific age is able to acquire the latest devices and on the other hand he is being tense due to polluted atmosphere, contaminated food and other reasons and due to this, many incurable diseases are being created whose

diagnosis and treatment is possible completely through yoga only.

The complete cure of constipation, colitis, obesity, asthma & various ailments of the digestive system is not to be found in any medical system.

Human body is a strong, perfect, and automatic machine. It needs fuel like all other machines to function and the same is produced by the blending of Dhatus, salts and blood sugar. The blood sugar is

incessantly metabolised by the insulin by which required fuel is generated to keep the human machine in motion. Any aberration in this process invariably increases the ratio of sugar in the food. This phenomenon is termed as diabetes.

Diabetes is rampant among the people of the affluent class because their food contains plenty of fats and starch. In the absence of manual labour these substances harm the digestive glands which is not compensated and consequently the production of insulin comes to a stop.

Treatment of Diabetes Through Yoga

The patients have to effect certain changes in their food. Till the disease is completely cured they should not take excess carbohydrates, proteins, fats and sugar. Use of alkaline substances is rendered indispensable in order to equalise the enhanced percentage of blood sugar. The following substances provide the necessary alkalis :

Green vegetables, dry fruits, fresh fruits, sprouted Moong, Chana & Wheat, which should be taken thrice daily.

Continued on page 36

Diabetes and Naturopathy

Dr. T. K. Abdul Razak

Diabetes is a disease condition of the body characterised by faulty metabolism of carbohydrates. Diabetes is of two types : diabetes mellitus and diabetes insipidus. Though the causes of these two types of diabetes are different both are the results of deficiency of insulin, a hormone produced by pancreas. The first type of diabetes arises when the pancreas fail to produce the insulin. The second type is produced by a disturbance in the functioning of the pituitary gland. The diabetes found among the children comes under the second category.

Among the contributory factors of diabetes, the important are improper diet, faulty action of liver, diseases of the nervous system, general debility, malaria, mental anxiety, sexual excesses, malfunctioning of kidneys, obesity and sedentary habits. Diabetes has been found as hereditary in some families.

The important symptoms of diabetes are excess urination, excess appetite and excess thirst. The urine will be pale as water and sweetish in odour and taste, but acidic in reaction. The tongue of the patient will usually dry, red in colour and

glazed. The skin will be usually dry, rough and coarse and boils may appear on it, which will not be healed quick by and later turns gangrene.

Treatment

Through cleaning of the internal system of the body, revolutionary changes in the food habits and a scrupulous system of daily routine will surely bring back the body to normal. The treatment-package and procedure may very depending upon the type of diabetes, nature, stage of disease, the length of time of occurrence, the severity the general physical and mental condition of the patient, the age, family background and living conditions of the patient etc.

Diet

The diet prescribed by the physician is very important and should be strictly followed. It is not good enough to stick to a constant diet. The diet system has to be reviewed weekly and necessary changes may be made as and when necessary. It would not be applicable in all cases of diabetes, if a readymade diet chart is prescribed herewith. However a diet applicable to almost all cases of diabetes has been given below :

1. **Morning** : *Half an hour before breakfast* : A glass of raw juice comprising of raw vegetables like cucumber, ashgourd, snakegourd, bittergourd, leaves and grasses and lemon juice.
2. *Morning and evening* : chew 10 Bilwa leaves.
3. Lunch consisting of raw vegetables, (except beetroot) Cooked (boiled or steamed vegetables) scraped coconut, bread made of soyabean flour, wheat flour or ragi flour, sprout seeds, germinated grams, nuts. Take these items is sufficient quantity so as to satisfy the appetite. Never take fruits and sweets after lunch.
4. Take plenty of vegetable soup, butter milk or lemon juice at regular intervals.
5. At around 7 p.m. take the same items taken for the lunch.
6. Never be hungry or resort to fasting.
7. Avoid sugar, rice, sweets, coffee, tea, alcoholic drinks, tobacco, smoking, all non-vegetarian items like meat, fish, egg, chillies, bakery items, breads and cakes prepared in maida, dalda, ice cream, sticky substances, etc :

Other Treatments

- Take enema early morning if suffering from constipation.
- Apply hot formentation and then apply mud-packs to the acedemen.
- Take either of the following bath-items daily (1) steam bath (2) sun bath (3) plantain leaves bath (4) spinal bath (5) immersion bath (6) hip bath (7) epsom salt bath (8) hot air bath (9) mud bath and (10) shower bath.
- Walk daily for one hour.
- Take deep-breathing exercises.
- Massage the entire body, especially the abdomen.
- Percussion and vibration of the back and the region of pancreas.
- Treatments like unipolar magnetotherapy, acupressure, etc. : as per the advice of a qualified practioner.
- Yogic asanas like suryanamaskaram, pashchimothasana, halasana, padahastana.
- Dhyana and medication and prayer.

A Special Remedy

Studies have revealed that fenugreek is very effective for the management of diabetes. Take Fenugreek powder daily or germinated fenugreek would do.

Plants Effective in Diabetes*Km. Shruti Shanker*

In India, millions suffer from diabetes and in recent years there has been an alarming increase in the number of diabetics. Specific causes or factors are yet not fully known but it appears that very soon diabetes too will have to be taken up as a major issue in the national planning to deal with, as is the tuberculosis eradication project executed by the Health Ministry.

In fact, diabetes is a metabolic disorder in which pancreas do not produce enough insulin - a hormone responsible to convert food (chiefly carbohydrates) into needed energy for the body. In the absence of insulin the blood glucose level keeps on rising since it fails to get metabolised, without insulin action into energy for the consumption by body cells to carry out their normal functions. When the body cells starve and do not get the needed energy, the condition leads to fatigue, weakness, excessive urination and thirst etc. besides an alarming increase in the appetite. All these symptoms ultimately lead to gradual but continuous loss in body weight.

Diabetes is not a disease in a strict sense but a metabolic or hormonal disorder in the

body. Though the actual cause of diabetes is still not known but there are many factors which trigger diabetes after a certain age. Hence everyone is advised to have yearly medical check-up for blood sugar after crossing 40 years of age. Sedentary life-style or lack of physical activity, intake of rich food, constant mental stress, obesity and to some extent heredity are the major factors triggering the onset of diabetes.

Recently, French researches have identified a gene located on chromosome-7 in human beings which is responsible for non-insulin dependent diabetes. This gene produces glucokinase-a protein that maintains blood sugar level and any mutation in this gene will disturb the protein activity, thus diabetes.

The golden formula to avoid the risk of diabetes is minimum consumption of sugar and fatty food, and enough exercise to keep fit and burn out any excessive sugar in the blood. Once the diabetes sets in, the best course left for the diabetic person to control it is through calorie-based regulated diet and exercise and if not controlled then to take some standardised pill daily which will increase the insulin secretion by the

pancreas in case of non-insulin-dependent diabetics.

There is no known cure for diabetes, only some measures are to be taken to keep the blood sugar level under control. Many indigenous herbal drugs are reported to bring down the blood sugar level but fenugreek, (*Trigonella foenum-graecum*) and bitter-gourd or 'Karela' (*Momordica charantia*) have the distinction of being used by diabetics extensively throughout the country. Some other plants known to check the rise in blood sugar are fruit and seed of 'Jamun' (*Syzygium cumini*), young or juvenile leaves of 'Neem' (*Azadirachta indica*), fresh leaves of 'Bel' (*Aegle marmelos*), 'Gurmar' (*Gymnema sylvestris*), 'Chirayata' (*Swertia chirayita*) It has recently come to the light that the common vegetable - 'Guar Gum' pods, botanically known as *Cyamopsis tetragonaloba* and which is highly rich in mucilage is found to be very good in diabetes as it is an effective sugar absorbent from the food stomach.

Medicinal Properties of Fenugreek

Fenugreek as a vegetable is carminative, tonic, aphrodisiac, astringent, cooling, demulcent, and diuretic. Seeds contain 6.2% moisture, 23.2% protein, 8% fat, 9.8% high density fiber, 23.3% mucilaginous material, and 4.3% ash (with 25% phosphoric acid) besides iron that is quickly assimilated into the body. Seeds also contain

the alkaloids-trigonelline, choline and nicotinic acids; essential oils, saponin and prololin; fixed and volatile oils, mucilage and a bitter extractive yellow colouring substance. When the seeds are soaked in water, its inner coat swells as a thick layer of mucilage. It is known for its hypocholesterolemic effect and reduces total cholesterol low density lipoprotein cholesterol (LDL cholesterol) and very low density lipoprotein cholesterol (VLDL cholesterol).

Fenugreek seeds are highly efficacious in the control of diabetes and in keeping a check over blood sugar level to some extent. Grind 10-15 seeds or as many as 50 if the sugar level remains high, sock over-night in water, filter and drink on an empty stomach early morning. Continue for a month or two it will bring down blood sugar level.

Fenugreek seeds (1-2 teaspoon) soaked in half cup of water for over night, then boiled for 10-15 minutes to get yellowish-brown decoction to be taken every morning on an empty stomach or take 0.5 - 1 teaspoon powdered seeds with water or milk before meal once or twice depending upon the diabetic condition i.e. blood sugar level evaluated before starting fenugreek powder doses and afterwards so that hypoglycemic danger is not there in case the sugar level is already low from other drugs or pills taken by a diabetic.

Chewing of Fenugreek seeds daily, controls diabetes and also brings down cholesterol and so the risk of a heart attack is avoided if taken regularly.

Medicinal Properties of Bitter-gourd

Its fruits and leaves are anthelmintic, and taken for piles, jaundice etc. Fruits contain alkaloids (0.038%), highly aromatic essential oil, carotene, glucoside, saponin and the alkaloid mimoridine.

In recent years, bitter gourd (Karela) has earned favour as a monoherbal medicine for diabetes mellitus. Dried fruits are powdered and made into pills with mucilage from fresh 'Lisora' (*Cordia myxa*) fruits, the recommended dose, is 18 gm/day. Karela is quite effective in reducing glucose in blood as well as urine. Studies have shown that this though does not promote insulin secretion but increases the assimilation of carbohydrates from the food. However, clinical trials have also demonstrated that fresh juice extracted from the fruit controls diabetes by maintaining the blood sugar level.

A cup of Karela juice extracted from the rind of the fruit taken every day for at least two months is certainly effective in controlling diabetes.

*Research Assistant
CIMAP
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New Herbal Medicine in Diabetes

Dr. Anjana Chaube, Dr. P.K. Prajapati, Dr. S. K. Dixit

Today almost all and one, are well - aware world over with the word "Madhumeh" or Diabetes Mellitus. Patients suffering from this disease are found in large numbers and their number is constantly increasing, day by day. Many families are having one or the other member, suffering from this dreaded disease. There are several causes of the origin of this obdurate disease, out of which some are worth - mentioning viz. excessive intake of milk, curd, recently reaped grain, jaggery, sugar and preparations therefrom, coupled with inactive life, habitually excessive rest leading to seditary habits and lack of exercises etc.

Diabetes mellitus is a condition of persistent high levels of sugar in the blood depending on a disorder of metabolism (digestion) of carbohydrates from insulin dysfunction (usually diminished insulin production and some time its diminished utilisation) and consequently impairment of functions of metabolism of fat, protein, water and electrolytes, causing appearance of glucose and subsequently acetone-bodies in the urine and progressive loss of muscles. In this disease, the patient at a later stage develops

the complaints of increased frequency of turbid urine, with its increased quantity.

According to Ayurveda, the patient loses his Dhatus (Rasa(sap), Rakta (Blood), Majja (Marrow) etc. in Tuberculosis gradually likewise, in this disease also the patient loses his Dhatus through his urine. Perhaps, on account of this only, the turbidity is found in his urine. The patient feels much hunger and thirst, burning sensations in his palms and soles, excessive sweating or perspiration and finally excessive weakness.

If the patient is not treated

properly and promptly for his ailment, rather in time, then in due course of time he may also have painful, causing severe troublesome and hardly curable "Pidikas" (carbuncles) on his body. His disease becomes incurable after certain period.

We have experienced that if patients start taking the following drug formulation, as soon as they become aware of the disease, they may get control over it and the disease may also be cured fully. Regular use of the drug for required period, depending upon the severity of the disease, is obviously important.

Contents of the Drug

SNo.	Name of the Drug	Quantity
1.	Triphala (<i>Terminalia chebula</i> , <i>Terminalia bellerica</i> , <i>Embllica officinalis</i>) - fruits	100 gm.
2.	Daru Haridra (<i>Berberis aristata</i>) - root	100 gm.
3.	Nagar Motha (<i>Cyperus-rotundus</i>) - root	100 gm.
4.	Arjuna Twak (<i>Terminalia arjuna</i>) - stem bark	100 gm.
5.	Nimba Twak (<i>Azadirachta indica</i>) - stem bark	100 gm.
6.	Karanja Beeja (<i>Pongamia pinnata</i>) -	100 gm.
7.	Methi Beeja (<i>Trigonella officinalis</i>) - fruit	100 gm.
8.	Amra Phlathi (<i>Mangifera indica</i>) - seed marrow	100 gm.
9.	Jamuna Phlathi (<i>Syzygium cumini</i>) - seed marrow	100 gm.
10.	Gudamara (<i>Gymnema-sylvestre</i>) - stem bark	50 gm.
11.	Ajavayana (<i>Trachyspermum ammi</i>) - fruit	50 gm.
12.	Naga Keshara (<i>Mesua ferra</i>) - flower	50 gm.
13.	Ashwagandha (<i>Withania somnifera</i>) - root	100 gm.
14.	Guduchi Swarasa - <i>Tinospora cordifolia</i> - stem	As required
15.	Karela - Patra Swarasa <i>Momordia charantia</i> - leaves	As required

Continued on page 41

Diabetes : Some Household Remedies

Soma Sen

During the surveys carried out in Jaipur (Rajasthan) it has been found that many diabetics have taken to indigenous treatment for controlling the sugar in addition to the conventional therapy. The plants used in diabetes are easily accessible and how to

take them is described below.

- **Bitter guod** : It is grated in 1/2 glass of water and allowed to remain soaked for about an hour or so and is given on an empty stomach in the morning and also in the evening. During off-season of this vegetable, powder of sun-dried stored seeds of bitter gourd is taken either with water in the morning and evening or with boiled rice in both meals.
- One teaspoon of Methi seeds powder is effective and is to be taken daily in the morning on an empty stomach.
- Tender leaves of Neem tree are chewed raw in the morning followed by a glass of water.
- Neem leaves roasted dry can be taken by the patient after grinding them.
- Jamun seeds are finely powdered and one teaspoon consumed daily with a glass of water.
- Also finely ground green leaves of Jamun (10 leaves approx.) are given in the morning with water for only 10 days.
- Guava leaves 125 gm are soaked in water overnight and strained and drunk in the morning on an empty stomach.
- Mango leaves (shedded ones and not plucked) are finely ground and a dose of 2 gm is taken both in the morning as well as in the evening with water. Treatment is to be

continued for two weeks. Also plucked fresh green mango leaves and boiled in 1/2 Litre of water till reduced to 1/4th. The decoction is strained and taken in the morning and evening. Bel leaves are effective in controlling diabetes and are taken in various combinations as under :

- Five leaves of Bel, Neem and Tulsī each with 5 pepper and few Gurmar leaves are grounded into fine paste and made into small pills and taken daily.
- Bel leaves by themselves, also serve as medicine. Bel is quite efficacious in bringing down blood sugar level 10 gm. Bel leaves to be ground and taken every morning on empty stomach for 7 days.
- Bay leaf (Tejpata) powder taken after lunch is highly effective.
- Four white Sadabahar flowers boiled in water into decoction and taken once daily for 7 days.
- Amla juice extracted from fresh fruits and mixed with honey is given twice a day.
- Black gram (Besan) flour is mixed with barley flour and made into Chapatis. These are given to the patient instead of wheat flour. Chapatis.

Continued from Page 30

Proposed Yogasana and Pranayam

Following asanas are useful in diabetes :

Sarpasan, Surya Namaskar, Pashchimottanasan, Janushirshasan, Supta Vajrasan, Halasan, Sarvangasan, Mayoorasam, Chakrasan, Ardha Matsyendrasan and Sheershasan.

Nadi Shodhan Pranayana, Uddiyan Bandha and internal Kumbhaka are also useful to diabetics.

Apart from this, after the practice of Kunjal and Neti for one month Shankha Prakshalan is required at once. This should be undertaken at an interval of one month for four times.

If diabetics practice above Asanas and meticulously follow the rules of eating then they would derive benefits without fail.

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Ayurvedic Treatment of Diabetes

All Pramehas change into diabetes in the absence of proper treatment. In diabetes the patient passes urine which is as sweet as honey and his body also becomes sweet. That is why it and other Pramehas endowed with these symptoms are called Madhumeha.

In Ayurveda the main reason of diabetes is believed to be Vayu. When Vata gets aggravated and Oja flows out through urine the condition is called diabetes. Usually diabetes occurs during the old age when all the Dhatus go on weakening day by day. This is an incurable disease which may be kept in check with medicine and apposite wholesome diet.

4000 years ago Acharya Charak and Sushruta had found out the passing of sugar in the urine and excess of blood sugar. The scientific method of estimating the blood sugar and urinary sugar given in the Charak Samhita and Sushruta Samhita are unique. Acharya Sushruta describes the colour of the urine of the diabetic as honey-like and Acharya Charak examines the urine of a diabetic with ants. He clearly says that the ants rush towards the urine of a diabetic. Similarly in order to determine the excess of sugar in the blood he says that flies are attracted by the sweetness of the body :

'Madhuryachcha tanoratah evam makshikopasarpna sharira madhuryam.'

By just observing the ants and flies conclude the presence of urinal sugar and blood sugar without performing any laboratory test.

According to Ayurveda Prakrit Shleshma is called the Apar Oja which is released in Madhumeha. According to the modern physicians the sweetmeats we eat are changed into sugar and are used in increasing the temperature of the body. However in this disease the sugar is not properly digested and is released through the urine as such without undergoing any change. In this disease the quantity of urine is enhanced and sugar is dissolved in it.

Main Causes of the Disease

This disease occurs in preference to rich people over the poor, to fat persons in comparison to the lean, to mental workers in comparison to the manual labourers, to sedentary toilers, to those who sleep during the day, to those who eat curd, meat, milk, cream, sweetmeats and heavy diets, to men in comparison to women, to persons of medium age and old people (40-60years).

Symptoms : Over-thirstiness, excessive appetite



Vd. Braj Bihari Mishra

frequent urination to which ants attach themselves, dryness of throat, weakness, worry, roughness in the skin are the symptoms of diabetes. Constipation, bleeding gums, itching all over the body, swelling in the legs, loss of body weight are also the chief symptoms. Women have itching in their genitals.

Treatment of Diabetes

One can try any one or more of the following home made remedies. But kindly monitor your blood sugar levels lest they go below the normal limits.

- Take the juice of Neem leaves 10ml with honey in the mornings.
- Take 20ml juice of fresh bitter gourd in the mornings.
- Take 6gm powdered skin of bitter gourd with honey or water for one month twice a day.
- Take the juice of Bael leaves or decoction of Bael bark.
- Take 3gm Triphala powder with 0.5 gm Shilajeet.
- Take 2 spoonful of turmeric

juice or 2 gm turmeric powder twice a day with water.

- Take Jamun stone powdered 2 gm with water twice daily.
- Take Gudmar leaf powdered 2 gm twice with honey.

Triphaladi Kashaya

Take 6 gm each-Aonla, large Harad, Baheda, bamboo leaves, Nagarmotha and Patha & crush them together. Then boil with 400 ml water in a stainless steel vessel till reduced to 50 ml, cool, strain and drink. This cures polyuria.

Nyagrodhadi Churna

Separately powder 4 gm each of the following- Vata, Goolar, Peepal, Sonpathabark, pulp of Amaltas, Vijayasar bark, mango stone, pulp of Kaithaphal, Chirounji, Arjuna bark, Dhav bark, Mahua bark, Mulethi, Pathani Lodh, root of Arhar tree, Kanja pulp, Triphala, Indrayava and pure Bhallatak. Take 3 gm twice with Triphala decoction. This powder cures all Pramehas. My late father Pt. Avadh Bihari Mishra used to prescribe the above powder an excipient to Pramehankush Ras to diabetics and used to cure them. Even taking the powder alone provides much relief to the patients of diabetes.

Mamajjak Ghanvati : The vati of 0.5 gm should be taken twice daily with water before meals. It is extremely beneficial.

Shilajatwadi Vati : 2 pills in the morning and 2 pills in the evening with water or milk.

Chandraprabha Vati : 4 pills in the morning and 4 in the evening with milk or water.

Chandraprabha is peerless in eliminating the defects of urine and make it clear. It also eliminates physical weakness and makes the patient hefty. The vati should be taken at least for forty days without break.

Shiva Gutika : Take one gm in the morning and one gm in the evening with milk, pomegranate juice or just water . For diabetes it is infallible and it can cure many other diseases as well. It rejuvenates one and is an excellent medicine.

Pathya (conductive) : Barley, gram, Kodo, Moong, Arhar, soup of meat, eggs and fish, cheese, fresh vegetables, such as Palak, Taroi, Kaddoo, Mooli, Parval, Louki, Same, Gular, Brinjal, Pea, Lisoda are

conducive to the health of diabetics. Light fruits like pomegranate, Apple, Jamun, Peach, Orange, Musambi may be taken. Roti of branny wheat flour and juice of Kagzi lemon is wholesome. Daily light oil massage, walking during the morning and evening, light exercise are priceless.

Apathya (non-conductive) : New rice, potato, cold water, ice, sweetmeats, maida (starch), sugar, jaggery, edible oil, intercourse, worry, mental exertion, sedentary life, banana and sweet fruits harm the health of diabetics.

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Aishbagh, Lucknow - 4**

Propagation of Ayurveda and Yoga in USA and Europe

by

Prof. Dr. Subhash Ranade and Dr. Mrs. Sunanda Ranade

Dr. Subhash Ranade and Dr. Sunanda Ranade visited various Institutes in U.S. and Germany. They were invited there for conducting Seminars and Lectures on Ayurveda and Yoga. Dr. Ranade gave his lectures at Navada City and at Ananda Ashram in Sacramento on the topics of body mind medicine and its relation to Ayurveda.

Hindu University of America is establishing a course on Ayurveda and this is the only accredited University in U.S. which is going to impart the degree in Ayurveda for American students. Dr. Subhash Ranade and Dr. Sunanda Ranade were also invited by the Hindu University of America to prepare the syllabus for Degree and Masters Courses in Ayurveda

From June 22 to 24 once again they gave lectures on 'Concept of pathology in Ayurveda' at Boston. They visited Germany for working on the manuscript of Ayurveda book in German language to be published very soon from first Verlag in Frankfurt.



Saraswati - I touch your feet Granny!

Granny - Live long, how is it that you have come in such heat and sweltering sun?

Saraswati - About 15-20 people a have been keeping sick of diabetes in our village, so I thought I should ask you how to cure them.

Granny - Dear child, I have a preparation called 'Tipatiya Yog', Which I will explain. It includes green leaves of Neem, Bael and Jamun. Take the leaves in equal quantities dry them in shade and powder. Take this powder one large spoonful with water twice daily. Within 15 days the sugar will be nil. I have tried this medicine on thousands of patients and found that it is infallible.

Saraswati - If you have a still better medicine, please tell me.

Granny - Write down - Goodmar 1 part, Jamun stone 1 part, cut and dried bitter gourd 1 part, Neem leaves 1 part, Bael leaves one part and Jamun leaves one part. Take them all in equal quantities crush and powder and take 1-2 spoon with water twice a day. It will minimise the sugar in just

Traditional Treatment of Diabetes



Vd. Badloo Ram Rasik

8 days. If the patient feels giddy or too weak after taking the medicine then it should be concluded that the medicine has lowered the sugar level below normal and immediately a little of sugar should be taken with water and the weakness would vanish.

Now I will tell you single leaf

Granny Goes Abroad

Recently Vaidya Badloo Ram Rasik was on tour to USA & Europe for the propagation of Ayurved. That is why we could not publish this column in the previous Rasayan special number. Vaidyaji's health deteriorated too much during his foreign sojourn. He has written this column inspite of his ill-health. We pray for his speedy recovery.

treatment. Take 20 leaves of white Sadabahar (Gulfirang). Remember it must be white Sadabahar and not the pink variety. The leaves should be chewed or grinded with water and drunk in the morning. It highly ameliorates the patient within a week.

See the tree of Glucheen or white champa that is before you. It has few branches. Few leaves. The leaves are long and flowers white. 6 gm. of its bark should be grinded with water and taken it reduces the sugar in 15 days. If the diabetic observes the regime after the reduction of sugar then the sugar level does not rise. Non-observation of proper regime increases it. The patient should not take jaggery, rice, sugar, sweet fruits, tea etc. He should take Roti of wheat, barley, gram flours Moong, Arhar, lentil, gram pulses, bottle gourd, Parwal, bitter gourd, Torai, Lobiya, spinach, Kundroo, Curd, a little of ghee and mustard oil. He should not take pickles and vinegar. Massage with sesame oil. He should walk in the mornings and evenings. If he has a green lawn then he should walk barefooted over it. If he has an injury in the leg and it is not healing then apply warm Ghee over it and tie Doob over it. Avoid sexual intercourse. These precautions and proper regime eliminates the diabetes.

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Rajendra Nagar, Lucknow*

Homeopathy in Diabetes

Dr. P. Ali

The underlying cause of the frequently seen Diabetes Mellitus (DM) is the deficiency of insulin. Insulin is a hormone secreted by some specialised cells known as Beta Cells of the Islets of Langerhans which are situated in the pancreas. This hormone is responsible for the metabolism of glucose. Glucose is the actual fuel from which we get energy for our life activities. During digestion, the starch is converted to glucose by the help of salivary Amylase and pancreatic Amylase.

Excess of glucose is converted to Glycogen and is stored in the liver for future use. For this conversion, insulin is essential. Hence a deficiency of insulin causes accumulation of glucose in the circulating blood which is then filtered by the kidneys and thrown out through urine. So the urine of this type of diabetic patient contains sugar. Hence the disease in Sanskrit is known as 'MADHUMEHA' means 'Sweet urine'.

Excess of glucose in blood is termed as 'Hyperglycaemia' and the presence of glucose in urine is termed as Glycosuria.

Causes

- Environmental factors
- Food habits
- Genetics
- Life style

Risk Factors

Sedentary life style

Absence of proper exercise affects the insulin production and causes DM.

Diet : There is no sound evidence for saying that high intake of sugar and sweets will cause DM. But malnutrition in childhood may affect the Beta Cells' functions and eventually causes DM. High intake of liquor may damage the liver and pancreas leading to DM. Overeating leads to obesity and obesity is considered as a stepping stone to DM.

Chemicals : Some chemicals such as Alloxan, Streptozotocin, Valcor (Rodenticide) etc can damage the beta cells directly and cause DM.

Some experts are of the opinion that a deficiency of the element Magnesium and the Vitamin B6 (Pyridoxine) in food may eventually lead to DM. The protein contents in our food are usually digested to form various amino-acids. Tryptophan is one of such aminoacids which is normally converted into Nicotinic acid by the help of Vitamin B6. If B6 is lacking, the Tryptophan is not turned to Nicotinic acid, but it is turned to Xanthuric Acid which is a harmful product. This harmful product can do much damage to the pancreas finally leading to Diabetes Mellitus.

High Risk Group

- Age group 40 and above
- Diabetic family history
- The obese
- Women who deliver a baby weighing 3.5 kg to 4.5 kg.
- Woman who show excess weight gain in pregnancy
- Patients who show premature atherosclerosis

Some 50 years ago DM was considered as a disease of the upper class only. But now the situation has changed. Now it is prevalent in lower class people also. The reason, is probably the change in the life style of the lower class almost equal to the upper class.

DM, if not properly treated or controlled in time, may lead to blindness, kidney failure, coronary thrombosis, gangrene of the lower extremities etc.

Diagnosis : It is not difficult. The patient says that he urinates too much (Polyuria), and he is very much thirsty (Polydipsia). Then he says that even if he drinks water very often, his mouth remains very dry. Progressive loss of flesh and a feeling of tiredness will be there. In such a case you must advise a Urine Test and if required a Blood Test also for sugar to confirm the diagnosis.

Normal Blood Sugar : According to severity, the blood sugar level will rise from the normal values. Blood sugar

greater than 200mg/100cc after food or fasting glucose levels of greater than 140mg/100cc can be considered as a confirmation.

Homeopathic Treatment

In DM many tissues and organs are affected in different individuals in different intensities. In each case, the patient is to be studied in detail so as to decide the suitable homeopathic medicine. In early stages it is very easy to cure the patient as much pathological changes have not occurred to the glands. Some of the often indicated Homeopathic medicines are given below :

ARSENICUM ALBUM : This remedy is required when the

patient is emaciated, weak, thirsty and restless with midnight aggravations of symptoms. Sharp burning pains with amelioration by heat is considered as a characteristic of this remedy.

SYZYGIIUM JAMBOLANUM : This remedy is used when the urine sugar is very high. The mother Tincture 20 to 60 drops are used according to severity. In Mother tincture doses, it is a palliative, not a curative.

URANIUM NITRICUM : This is a valuable remedy in many cases of DM. It is useful in cases complicated with kidney and liver disorders with hypertension and dropsy.

PHLORIDZIN : Very useful in Renal Glycosuria where sugar is seen in urine only. Blood sugar will be normal.

ALLOXAN : This remedy is tested by Dr Templeton in 1951 at London Homeopathic Hospital and found very effective. The potency used was 6X and above. Both blood sugar and urine sugar will come down by using this remedy for a few days.

GYMNEMA SYLVESTRE : Useful in all stages of DM. Used in low and high potencies. It also improves digestion and removes weakness.

MAGNESIUM SULPH 3X 5 grain once a day and **PYRIDOXINE (Vitamin B6) 2X 5** grain TDS can be used almost as a specific in majority of DM cases.

**Homeo House, Kondurkara,
Pattambi - 679303, Kerala**

Continued From Page 35

Method of Preparation

The Drug formulation is prepared as per following steps :

1. At first the contents of dried drugs are cleaned, further dried and ground well to make fine powder of each separately.
2. Powder of all ingredients is then mixed altogether homogeneously in the above said respective quantities.
3. Then in a mortar (Kharala) this powder is taken and juice of Karela leaves is added in sufficient quantity which is necessary to make the power completely submerged in it. Now this

wet powder is pounded well with a pestle till it achieves total dryness.

4. In this dried powder juice of Guduchi is then added likewise and again trituration is done till its complete dryness is achieved.
5. The powder is thus triturated five times each, with both the juices, one by one separately.
6. During last trituration when the material attains semi-solid state, suitable for preparation of pills, the pills of a large gram size are prepared of it.
7. The pills are then dried well in shadow and stored after

packing in a suitable air tight container.

Dose : 2-2 pills thrice in a day with water.

Pathya (Prescribed diet and Precautions) : Chana (gram), Munga (Kidney bean), Yava (Barley), Kodo (a coarse grain) and Laghu Vyayama (Light exercise) etc.

Apathya (Prohibitions) : Oils, Ghee (clarified butter), Jaggery, Sugar, Navanna (Recently reaped grain, sleeping during the day and avoiding the urge of micturition).

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Diabetes in Pregnancy

Diabetes, now-a-days is spreading fast like cancer and coronary diseases. Modernisation has minimised the physical labour of women at home. Due to this, their digestive process becomes unbalanced. Most of the women become a prey to diabetes due to obesity. According to Sushruta siesta is prohibited in seasons other than summer. Avoiding physical labour and eating too cold, fatty sweetmeats causes diabetes.

According to Ayurveda, vitiation of the disease Prameha causes diabetes among men. But Prameha does not occur to women even in the presence of Doshas causing Prameha. Some experts believe that Soma Rog occurs to women and its symptoms are as those of diabetes. Diabetes is a Prameha Rog caused by Vata, wherein sugar passes with urine. In Ayurveda, it is also called Ojomeha' because ojas happens to be sweet. In other words it may be said that oja is glucose.

Diabetes slowly grows in women. The symptoms become more distinct with the advancement of disease. Symptoms of weakness are more apparent than any other physical symptoms. In the beginning, the patient passes excess of urine, more at nights. Due to discharge of sugar with

urine her colour starts turning yellow. The spot where she has made water soon attracts the ants. The patient complains of headache, excess of hunger and thirst. The patient feels too weak after walking or doing any work. She always wants to lie on bed.

Due to discharge of excess of sugar with urine, the weakness grows, eyesight is weakened and diseases like atherosclerosis, cataract, heart diseases etc. occur.

Diabetes in Pregnancy

After conception women need extra amounts of nutritious diet. As because she needs it for herself and for the growing baby also. However, diabetic women cannot take very nutritious diet. During pregnancy the disease is likely to become worse. The disease does not occur during pregnancy but if it was there before conception then she may come to great harm during the pregnancy. However diabetic women have difficulty to conceive. If they do, abortion is also apprehended.

Diabetics have excess of hunger and thirst. Overeating after the conception causes difficulty in the process of digestion. Physical weakness grows greatly. In such conditions the blood sugar becomes abnormal. Foetus of

diseased women weighs more than that of healthy women. Foetus of some women weighs as much as 10 pounds in 37 weeks. The blood pressure of the pregnant woman rises. Alongwith this, obese woman becomes very anxious and flustered in such conditions. Eyesight is feeble. More albumin is discharged with urine.

Abortion is even possible during the last three months of pregnancy. The baby may die in the womb due to the negligence of the physician. The pubis of diabetic women becomes deep. Death of the baby is apprehended even after the delivery. The foetus of the diseased woman is likely not to be properly developed. Some children may be born with faulty limbs.

The life of the pregnant is greatly endangered by the death of the baby in the womb. The diabetic pregnant woman must be taken to the hospital for delivery, to be on the safe side, in case of an emergency.

The blood pressure may become high during the delivery. In case of deformity of the womb, there is a risk of suppuration. Obese women are likely to have diabetes. Insemination in such condition makes the matter worse.

Defective digestion in the obese body causes deficiency

of insulin and this in turn causes glucose to bleed with the blood. Increase in the amount of sugar in the blood causes acetone to pass with urine.

Should a diabetic woman conceive, she must be kept under medical help from the beginning. Urine must be tested every week or fortnight, sugar estimated and kept under control with insulin. Insulin may be given regularly to keep the blood sugar under control.

During pregnancy 2000 calories of food is required. The fat should be minimised. However curd and cheese may be taken. The diet must be mainly in liquid form so as to ensure easy digestion. Pregnant women are prone to vomiting and nausea. Cereal food must be minimised and fruity food should be increased.

Tomato, carrot, radish, onion, green gram should be taken as salad. Fruits like lemon, orange, Jamun etc. should be taken the diet should be such that the pregnant woman may have no constipation-constipation aggravates the disease. The pregnant should drink water just after leaving the bed in the morning. A lemon may be squeezed into it for better action.

Triphala powder taken while going to bed obviates constipation. In case of persisting constipation, she should take triphala powder twice a week, which precludes constipation. The diabetic women should eat as many Jamuns as possible. The more,

the better. As it controls diabetes. The Jamun juice greatly helps in the digestion of sugar. Powdered Jamun stones must be kept handy for use. Taken once or twice daily, it stops the discharge of sugar in urine. It also obviates the constipation. Alternatively, vinegar of Jamun may be prepared and radish or onion slices soaked in it may be consumed to control the sugar.

5 ml Giloy juice taken with 1 ml sugar daily controls the sugar. Tender leaves of Neem chewed minimise the discharge of sugar through urine. Wounds or boils, if any, should be washed with water boiled with Neem leaves.

Chandraprabha Vati may be taken twice daily with water. Vasant Kusumakar Ras 1 tab, powdered Jamun seeds 4 gm., Tribang bhasma 2 Ratti may be taken with honey. The patient should drink cow's milk.

Pregnant women may take insulin injections too. The dose of insulin should be determined after the examination of the patient by a lady doctor. Acetone test should also be done from time to time during the pregnancy.

Generally, the problem of high blood sugar becomes aggravated during pregnancy in diabetes. In such cases Chandraprabha Vati 2 tabs should be taken twice daily with unsugared milk. Sarpagandha 10 gm. taken with water at bed time helps a lot. This eliminates deformities of kidneys as well. 3-4 Bongainvilia leaves chewed in the early morning brings

down the discharge of sugar through urine.

Crushed powdered Vasant kusumakar Ras 1 Ratti, Goodmar 1 gm and Jamun seeds 1 gm taken with honey proves to be highly beneficial. Jamun fruits should be consumed to eliminate the problem of vomiting and hasten the process of digestion.

During the pregnancy soluble insulin should be taken as injection on the physician's advice. The sick woman must mind her diet more than the drugs. The pregnant woman must take sufficient rest.

According to medical experts, proper nursing during the pregnancy ensures proper development of the baby in the womb. However even a slight negligence during the delivery may harm the baby to a great extent. It is necessary to look after the pregnant during the delivery with the help of the physician. Get her examined by a lady doctor from time to time during the pregnancy. In case of primiparous delivery, caesarian operation may have to be done. If the foetus is big, have delivery through caesarian operation. After two or three deliveries, normal delivery could be accomplished. However, keep the number of pregnancies limited. Surgery ensures the safety of the life of the child in the womb and also from toxicity. The body of the sick woman may be treated from the very beginning to keep it free from disease.

Heart & Kidney Care for Diabetics

Diabetes is a disease wherein almost every part of the body becomes affected. It also exerts adverse effect on the immunity causing various contagious diseases. Heart and Kidneys, the two of the four vital organs of the body get adversely affected by diabetes.

Arteries become narrow due to settlement of cholesterol in them. Consequently, blood cannot flow freely. The disease remains concealed for long sometimes because blood is supplied to the same limb through the aorta apart from other little arteries. This state is called atherosclerosis. In diabetes, this assumes even more serious proportions, which may even cause heart attack. If the supply of blood to the brain gets obstructed, stroke may also occur.

The main symptom of the disease is pain in the calf which increases during the nights. In advanced state of the disease heart attack is possible.

Atherosclerosis can cause Nephropathy i.e. partial obstruction in the functioning of kidneys. The disease is common among the insulin dependant patients which may cause death if the diabetes is chronic. The possibility of kidney infection in diabetes is increased whereby the kidneys may partially or totally stop

functioning. In the initial stage of kidney deformity, albumin is discharged with urine which happens to be so little in the beginning that no other symptoms are observed. That is why regular urine test is a must for the diabetics.

Among male patients of diabetes, the danger may be two times of heart attack and five times in female patients of that in non-diabetic persons.

Mostly diabetes is a life-long disease because so far no cure has been discovered to eradicate it. However scientific research have rendered its control simple and easy and if the control is maintained properly and incessantly then no problems are likely even if diabetes is there. During the initial stage either the patients have no trouble or the trouble is a so trifle that they just ignore it. In the beginning even the ill-effects do not show any serious symptoms and when they do, the disease has already become incurable.

Thus, most of the patients of diabetes remain neglectful of treatment in the beginning which is highly unfortunate. It would be ideal if every patient gets enrolled in a diabetic centre, takes regular treatment and makes his future bright by excellent control. The difference of diabetic centres from general clinics is that the

former lay great stress on educating the patient and he is thoroughly examined medically on his every visit to the centre, during which every possible ill-effects are investigated so that they may be identified and the patient may be saved from their fatal consequences.

The diabetes may affect badly any limb of the body. However, it is necessary to know the adverse effects caused to the heart, which are as follows:

1. Coronary artery disease and Myocardial infarction (heart attack)
2. Cardiomyopathy
3. Defects of motion and rhythm.

Coronary Artery Disease

Every part of our body needs oxygen & glucose etc. which is supplied to it through the blood. The tube supplying blood to every part is called artery, and the tube carrying away the blood from the parts is called vein. The artery bringing blood to the heart is called coronary artery. This artery becomes constricted at places due to sedimentation of cholesterol even in normal persons with advancing age. This process is called atherosclerosis. When the diabetes goes out of control then the process is accelerated and various disease start growing due to this at different parts of the body. The disease growing in the coronary artery

is called 'coronary artery disease.' When the constriction is partial the disease is called 'angina pectoris' and when the constriction is complete the disease is called 'heart attack.'

In both the conditions the patient feels pain in the leftside of the chest which also is felt in the left hand. It generally shoots up after some manual labour and subsides with rest. Sometimes, angina starts after the patients has lost his temper. The ache subsides by chewing 'nitroglycerine' tablet. On the other hand, the heart attack may begin any time and rest or nitroglycerine tablet does not help at all. Moreover this pain is more acute and the patients sweat a lot. The coronary artery having closed completely, some parts of the heart do not get any blood and become dead whereas in a angina no part of the heart is so damaged.

Cardiomyopathy

Cardiomyopathy means weakened state of the wall of the heart. The chief function of heart is to pump the blood into the body for which it has to function incessantly without any interval. Our heart contracts and expands with every palpitation and it palpitates about one lakh times a day. After weakening of the wall, the heart is not able to pump the blood properly and the weak wall goes on dilating with rising pressure. Consequently, various parts of the body receive insufficient amount of blood. Initially the patient is tired soon, and when the

disease is advanced, he becomes out of breath especially after some exertion. With further worsening of the disease the body swells due to accumulation of water in the body.

Defects of Speed and Rythm of Heart

The heart palpitates at almost constant interval and even if the speed is accelerated some times, as after performing some work, it automatically becomes normal with rest. In diabetes different defects of the speed of the heart may occur such as its acceleration or retardation. At times, certain

palpitation may occur early or lately. Such defects are called defects of rhythm.

Generally the patients feel palpitation. In these defects however, the heart cannot function properly due to some defects and begins to 'fail' The above are the defects that grow due to the ill-effects of diabetes over the heart. However, there are many situations when the heart is injured due to some other bad influence in diabetes. For example high blood pressure, which may exert many fatal effects on the heart though the heart is not affected with diabetes.

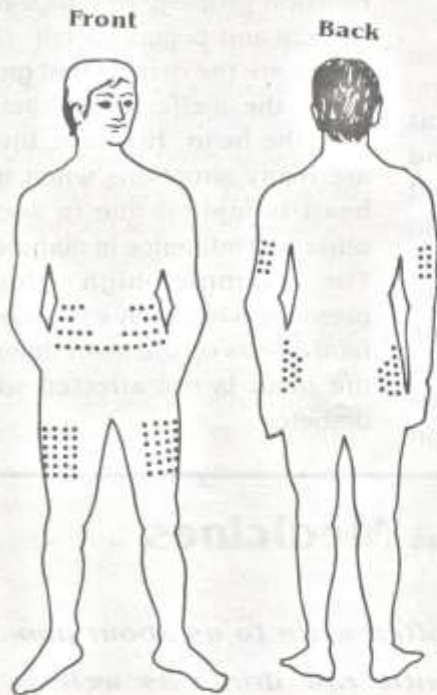
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Precautions in the Use of Insulin



Places for Insulin Injection

Those who have diabetes from childhood (insulin-dependant diabetes) must have daily inoculation of insulin. Even in diabetes of advanced age, it becomes at times imperative to take insulin inoculation to control the quantity of glucose in blood.

Types of Insulin

The generally used insulin in India happens to be made of insulin Cystals extracted from the pancreas of cow. Insulin is also obtained from the pancreas of pigs. This insulin is similar to the human insulin. The recently prepared human

insulin is also available in India. these insulins are of different purities and only physician can determine which insulin would suit the patient.

Measure of Insulin

Insulin is measured in units. One unit of insulin reduces the blood sugar to a certain extent.

Your physician will tell you the number of units of insulin needed by you.

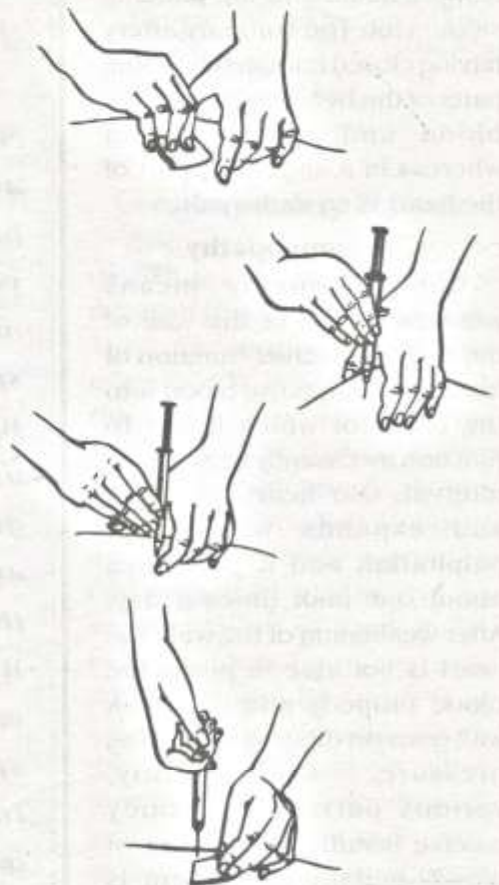
In India insulin is obtained in 40 units/ml and 100 units/ml potencies.

You must not change the type, potency or quantity of insulin on your own. Generally 40 units per ml insulin is used. Insulin of potency 100 units per ml is also available. The benefit of the latter is that you have to take less ml to get required units.

You may use the glass syringe of insulin several times. You must boil the syringe after use. These syringes are

comparatively cheaper, Plastic syringe are also available in India which should be thrown away after a single use.

When you are not using it, the insulin must be kept in the refrigerator. However, you must never keep it in the freezer. If you do not have a fridge then wrap the insulin in a wet towel and keep in a shady, cool place away from sunlight. Dampen the towel from time to time.



Correct way of giving insulin injection

Two types of insulin are available in India. One type is effective for a few hours only. Another type lasts for 18-24 hours. The first type shows its effect after half an hour of injection. Its maximum effect starts after two hours. The latter type affects after one or one and a half hour after the injection. It is milky colored. It should be shaken before use to let the contents blend well.

Usually the doctors advise to take the mixture of the two types so that its effect lasts for the whole day. The insulin should be used within the expiry date written over the phial.

An extra phial of insulin must

be kept handy at home so that it could be used in case of an emergency. **Takin of Insulin.**

Insulin should be taken half an hour before meal. It should be injected into the arm, Thigh, stomach or hip. The site of injection should be kept changing.

Precautions

Clean the skin with cotton and spirit and let dry. However never clean the needle of syringe with spirit.

Hold the syringe like a pencil and insert the needle straight into the skin. Move the plunger slowly downwards.

Press the point of inoculation

with spirit and cotton and take out the needle. Don't worry if a little of blood oozes out.

Before use the syringe and needle should be kept in boiling water for at least 5 minutes. The needle must be changed after every 2-3 days. Only 27-26 number needles should be used.

Separate syringes are made for 40,80 and 100 units and should be used accordingly only. Take the insulin injection daily and do not stop it in case of illness also. Change the quantity of insulin on the recommendation of the physician only.



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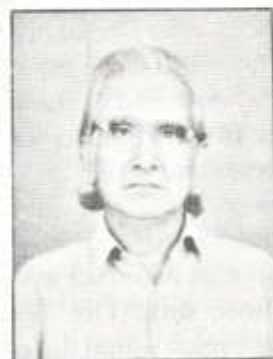
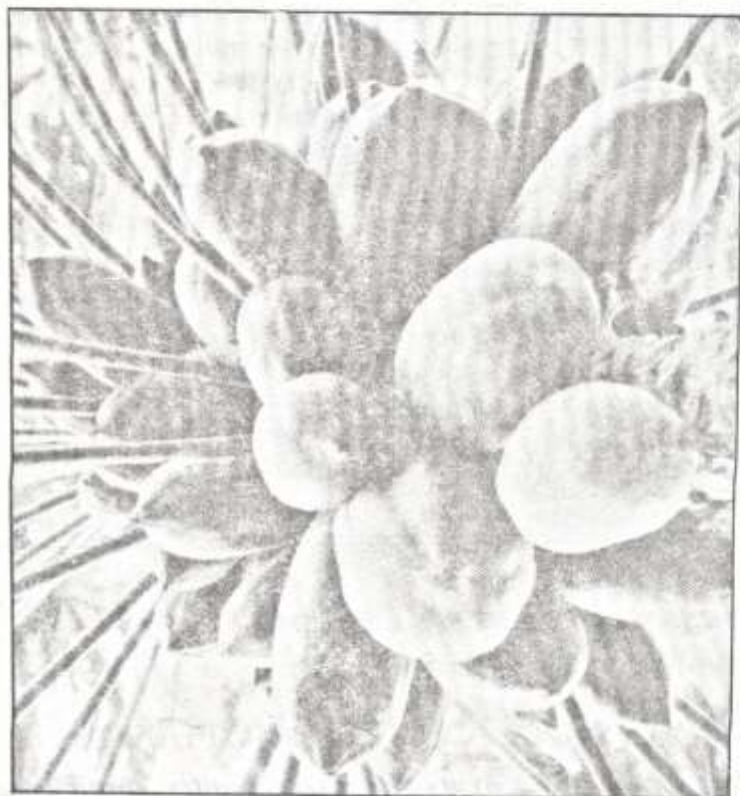
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Useful Papaya



Vd. S. A. Khan

Most of the people are quiet familiar with Papaya, found in almost all localities and vegetable shops. It is a foreign plant but it has become popular in India due to the properties present in it. It is used as a medicine, vegetable, as well as a fruit. Raw fruit of papaya, its leaves, latex, and seeds, all are medicinally used. Raw papaya is used as

vegetable and the ripe one as fruit.

Language-wise Names

Hindi - Papeeta;
Sanskrit - Eranda Karkati, Madhu Karkati; **Marathi** - Papaya; **Bangla** - Paipai;
Sindhi - Kaath Gidari;
Telugu - Boppayee; **Tamil** - Papali; Pachali;
Malayalam - Pappayam, Kappalam; **English** - Papaya; **Latin** - *Carica papaya* Linn.

Papaya tree is generally

of 10-20 feet height. Its leaves are oblong, almost similar to that of castor leaves. The stem grows erect and straight, the leaves form the shape of an umbrella. Papaya plant is of two varieties i.e. one is a male plant and the other one is of female variety. The seeds of papaya are sown in the beginning of rainy season. Nowadays a dwarf variety is also being cultivated which can be grown in earthen pots or in kitchen gardens. Upon cutting or scratching the fruit, latex oozes out. The milky substance oozes from the nodes on plucking the

leaves also. The fruits contain small black seeds, similar to that of black pepper.

Parts Used

Fruits, seeds, leaves, latex

Properties

Raw papaya is hot in temperament. It is also rough, pungent, subsider of Vata and Kapha vitiations and increases Pitta. Ripe papaya fruit is hot in temperament, unctuous, sweet, subsides Vata, Kapha vitiations but doesn't increase pitta. Papaya latex (milk) is hot in temperament rough and carminative. Papaya fruit and milk both have the properties of abetting the digestive fire and purgative.

Medicinal Uses

Frequent application of latex of papaya on ringworms, scabies and other skin disorders etc. cures them shortly. To collect the latex, either the leaves of papaya plant are to be plucked or the fruit has to be cut with knife and the oozing milk is collected.

- With a steel knife the

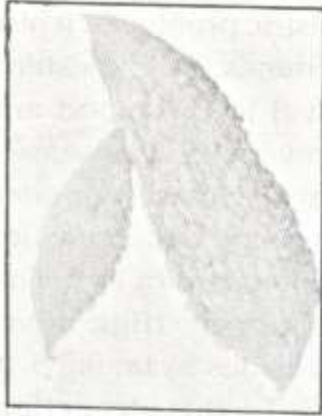
raw papaya fruit is scratched and the milk oozing from it is collected in a china clay pot, little lemon juice is added to it and is dried in shade. When it becomes semisolid pills, are made of 1 gm. each. These pills if taken alongwith hot water, twice a day, check diarrhoea.

- Raw papaya is cut into pieces and dried in shade. A little of black salt and lemon juice are added to this and tablets are prepared of 1-3 gm weight. This tablet should be taken with warm water twice a day after food. It is a very good carminative. Cholerectics should take it sparingly.
- For stomach & digestive dis-orders, particularly for the old people whose digestive system is very weak, there is no better medicine or vegetable than papaya. They should take curries prepared of raw papaya and take ripe papaya in thier breakfast daily. This will cure the indigestion, and remove

loss of appetite and gastric problems. It also reduces the cholesterol level in the blood and prevents heart diseases.

- Papaya leaves are dried in shade and decoction is prepared by its boiling in water. High fever subsides by taking 5-10 ml. of this decoction, twice a day. Hypertension can be managed by taking papaya daily, early in the morning on empty stomach.
- Papaya is very good for nonvegetarians. While taking non-vegetarian dishes, if little raw papaya is also taken alongwith it, this assists the digestion of non-vegetarian items.
- Regular papaya consumption helps, diabetes, gall bladder stones, diarrhoea, menstrual disorders etc.

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Bitter Gourd

fruits, its leaves and roots are also used for their medicinal properties.

Local Names of Bitter gourd : **Hindi** - Karela, **Karala** **Sanskrit** - Karvellac, Karvelle, **Bangla** - Uchae, **Marathi** - Karli, **Gujarati** - Karli **Kannad** - Hagalkai, **Tamil** - Parke, Pakal, **Telugu** - Kakar, **Malayalam** - Perupaval, **Latin** - Momordica charantica, Linn

Medicinal Values of Bitter Gourd

Its fruits are cooked and eaten as vegetable. It is recommended to be cooked with 'Methi' for patients. Karela has been advocated in following indications :

1. R e p e a t e d micturition, complaints of increase in output of urine, weakness after passing urine, sleepiness, burning sensation in palms and soles, abnormal weight gain, loosened muscles. In such indications

patients are recommended vegetable of karela with unbuttered chapatis made of wheat flour. They are also recommended long walks and exercise and advised not to sleep during day time.

2. Recurrent bouts of cold and cough may often be due to worm infestations. Half cup of Karela juice mixed with 1-2 gms of Vaividang powder is advised to be taken empty stomach in the morning, followed by required quantity of castor oil to be taken orally.

3. P a t i e n t s complaining of wheeze due to cough and congestion, white frothing around mouth and feeling of lethargy, should take 1/2 cup of juice mixed with 2 spoons of honey and 1/4 spoon of black pepper powder.

4. P r o g r e s s i v e industrialization leading to pollution and increasing

Bitter Gourd (Karela) is widely consumed all over the country as a vegetable. It is a bitter-pungent vegetable (Tikta Rasa dominant). People consume it because of its medicinal properties and its nutritive value. Karela is regularly consumed by persons who are alert about their health. It is also consumed by diabetic patients.

In principle our diet has six Rasas (tastes) namely, Madhura (sweet), Amla (sour), Lavan (salt), Tikta (pungent), Katu (bitter) and Kashaya (astringent). However, in practice share of ingredients with Tikta and Kashaya Rasas in our foods is negligible. Karela being bitter in taste can easily substitute for the same. Besides Karela

use of synthetic clothes has its adverse effects on human body causing various skin disorders. Sweat does not evaporate quickly, keeping skin wet for longer periods leading to various skin diseases. Such skin disorders with weeping tendency, should be treated locally with its juice mixed with cumin. Gentle massage with flavoured juice alongwith oral administration of bitter gourd for three months can relieve the patient.

5. **P a t i e n t s** complaining of burning sensation and gripes in stomach, headache and appearance of blotches on the skin are recommended a cup of its juice (50 ml.) in the morning. Administration of juice may induce vomiting and a couple of loose motions. Patient should take Ghee and boiled rice - two hours after vomiting and motions.

6. **P e r s o n s** complaining of fever, bodyache, increase in amount of saliva, loss of taste and appetite, feeling of heaviness formation of

a white coat upon tongue should use bitter gourd. It is advised to cut the fruit in pieces and dip it in cold water overnight. This water should be flavoured with cinamom sticks (Dalchini), cardamon (Elaichi) and black pepper. This water is then taken repeatedly in small quantities during day time.

Excessive use of bitter gourd should be avoided since it increases Pitta in body, which is harmful. Diabetic patients often consume its fruits because of it's medicinal properties. However they must bear in mind that it is not beneficial for all the diabetic patients. Therefore, its use should not be initiated soon after the detection of diabetes. It may lead to other complications. Diabetic patients must consult a specialist before taking this treatment. Its treatment is contra-indicated for those diabetic patients, who complain of joint-pains in limbs, pain in sole, vertigo, excessive thirst, hunger, loss in body weight and tiredness.

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Fenugreek or Methi

It is a herb mostly known to all persons. Its tender leaves are used as vegetable. The cooked vegetable is termed as 'Shaak'. Sometimes the leaves of this plant are also used as medicine.

The seeds of Methi plant are used as condiments (Masale) and also used as medicine. Methi Plant belongs to Rabi crop & thus it is the famous herb of winter season.

Language-wise Names

Hindi, Marathi & Gujarati - Methi, **Sanskrit** - Methika, **Persian** - Shamlit, Shamliz, **Latin** - *Trigonella foenum graceum* Linn.

Medicinal Properties of Methi

Methi contains a bitter substance/sap. Methi is of 'Ushna Virya'. It is 'Katu - Vipaki'. It wipes off Vata and Kapha, and increases Pitta. It is stimulant, tonic (Balya) and 'Snigdha' (somewhat fatty) in characteristics. It also fights fever.

Uses of Methi Leaves

Tender leaves of Methi are grinded and mixed in barley dough. Poories prepared from this with

mustard oil are good for the diabetic patients.

- The paste of methi leaves when warmed and applied as poultice on boils cures them.
- The boils ripen soon after the application of poultice of Methi and get cured.
- Shaak or "Saag" of Methi is beneficial for "Vata" and Kapha tempered patients. Patients of Pitta disorders should not use Methi because it increases Pitta.

If Methi "Saag" is consumed with the stems, it may increase "Vata" so only tender leaves are recommended for consumption.

Uses of Methi Seeds : Seeds of Methi are "Vata" removing. They increase appetite and are beneficial to stomach. Seeds also keep uterus active and also wipe off diabetes. For this, take Methi seed powder 5 gm. with warm water every morning or soak 10 gm seeds of Methi in water overnight and fry these soaked seeds in mustard oil and take with breakfast.

- Methi seeds in 3-5 gm

dose remove pain in waist & joints, rheumatism and pain in uterus, if taken in morning and evening daily.

- Use of Methi after delivery is specially beneficial for women. Uterus wound heals up and the genitals & abdomen soon regain their normal state by its use.
- Methi is of specific importance for the patients of 'Vataj' temperament. In ailments pertaining to "Vata" or in wounds, Methi is boiled in water and this water is used for bathing and drunk also to get relief.
- In lack of menstrual blood use of methi seeds is recommended.

Harmful effects of Methi : The persons having bile disorders should not consume preparations of Methi.

In diseases due to "Vata" Dosh, Methi with dried ginger (Sonth), black pepper and common salt (Rock Salt) used continuously produces improvement.

Jamboo



Jambu fruit is a very popular fruit. Fruits become available in the market in the last week of June and continue till August.

The Jambu trees grow in the plains generally. In hilly areas they are rare. Generally, Jambu trees are found around evergreen or moist autumnal forests. The fruits are very tasty, nutritious and also important as endowed with medicinal properties.

Language-wise Names :

Sanskrit - Jamboo;
Hindi - Jamun; **Gujarati** - Jamboo; **Bangla** - Jam;
Tamil - Shambu; **Telugu** - Neredu; **Kannad** - Nerale;
English - Jamboo,

Marathi - Jambhool;
Malayalam - Yavel, **Latin** - *Syzigium cumini*.

The tree belongs to the species Myrtaceae. It is a large, perennial and multiannual tree. Leaves are 8.2 cm long and smooth, juxtaposed in twins. Flowers are clayey white, fruits are 1.5 - 4 cm long, elliptical in shape, initially violet in colour which become dark violet or black on ripening and have stones.

Medicinal Properties

Its leaves, bark, fruits & seeds are used in medicine. The bark is antidiarrhoeal and is used in diseases of throat, cough, asthma, diarrhoea,

abscess and boils. Seeds are effective in purifying the blood, curing diarrhoea and diabetes.

Uses

- Jamboo juice taken regularly helps in curing Prameha, vomiting, sometimes hard and sometimes loose motions, piles, cough, distention of stomach etc.
- Powdered Jamboo stone is especially effective in combating diabetes.
- In infantile dysentery decoction of Jamboo bark is advised.
- Bark juice taken with goat's milk cures Sangrahani.
- In problems of spleen, the leaves should be ground with milk and taken daily.
- Bad odour of the mouth and blisters thereof are cured by gargling with juice of delicate Jamboo-Leaves.
- Leave's juice is the surest cure of headache.
- Vinegar prepared from fruit juice cures Pitta.

Agni and Disease

Food is a must for all beings including humans for the protection and continuation of life i.e. for the conservation and development of life. Therefore, search of food is the primary duty of all living beings. Other animals are apparently ceaselessly engrossed in the search for food. The man has ascended the stairs of development and is consequently indirectly set to obtaining food.

The food provides nutrition to the body and gratification to the mind so that the body becomes strong and the mind happy. The body grows properly and becomes hefty, attains strength and glow, the sense organs and limbs function properly and intellect and happiness are achieved through the food.

Proper benefits are derived only when the food comprises all the six tastes, i.e., Panchabhautika, potent and Sattvika. However, the food as such cannot satisfy the requirements of the body. For assimilation, food has to be converted so that it becomes one with the ingredients of the body. The energy which converts the food into something assimilable by the body for its use is called 'Agni' in Ayurveda. In Geeta, this fire has been stated to be the God personified :

Aham vaishwanaro bhootva praninam dehamashritah. Pranapana samayuktah panchamyannam Chaturvidham. Shri Krishna says,

It is I, who lives as vaishwanar Agni (fire) in the bodies of beings and digests the four types (eatable, drinkable, lickable and suckable) of food in combination with the Prana and Apana Vayus. Sushruta also has said that :

Jatharo bhagwanagni reeshwaronnasya pachakah. Soukshmyadrasanadadano vivektum naiva shakyaate.

That which digests the food and assimilates the tastes is good and being subtle cannot be



Pt. Kashinath Gopal Gore

analysed.

According to the Ayurvedic principles there are 13 types of Agni, namely Jatharagni, five Bootagnis, and seven Dhatwagnis. Among these the Bhotagnis and the Dhatwagnis are more subtle and hence by the word Agni is meant generally Jatharagni only. Usually Jatharagni is believed to be Pitta, because '*Agnireva sharire pittantargatah*' or '*Na khalu pittaryatirekadan-yognirupalabhyate*' convey this very idea. However, there are umpteen references in the samhitas which make it clear that the two are separate. It is said in Ashtanga Hridya that :

Annasya pakta pittam to pachakakhyam pureritam. Doshadhatu maladinamushmetyatreya shasane.

According to the Dhanwantari school, the Pachaka Pitta digests the food, however according to the Atreya school the heat of Dosha, Dhatu and Malas digests the food. Ashtanga Hridaya has made this idea more distinct, as follows :

Pittam panchatmakam tatra pakwamashayasmadhyagam. Panchabhootatmakatwepi yattejasagunodayat. Tyaktadravatwam pakadikarmajanal shabditam. Pachatyannam vibhajate sarkittou prithaktya. Tatrasthameva pittanam sheshanamapyanugraham. Karoti baladanena pachakam nama tat smrtam.

The Pitta situated between the Pakwashya and

Amashaya is Panchabhautika, yet due to its Taijasa attribute abandons the fluidity and performs the function of digestion and is called Agni.

"Pittam sasneha teekshnoshnam Visram saram dravam" these are the qualities of Pitta, and among these all except Visram and Drava are the qualities of Agni. Therefore, the differences between Pitta and Agni are clear. Agni is the base of life and health. That is why the definition of a healthy persons includes 'Samagnishcha.' Agni must be even for the maintenance of health. From this angle Agni is four-typed- (1) even Agni (2) acute Agni (3) odd Agni (4) mild Agni. The Agni being even proper food is digested properly. The Agni being acute, the food gets digested even if taken in large excess. If the Agni is odd then the food will get digested at some times and will remain undigested at other times. If the Agni is mild then the food consumed in proper quantity even will not be digested properly.

Agni is extremely important for life and body and its absence eliminates life.

Shantegnou mriyate yukte chiram jivatyanamayah.

Rogisyadwikrte moolamagnistasma puniruchyate.

The Rishi Charaka says that if the Agni is pacified, the person dies and one stays healthy and longeval, if it is even. One becomes sick when the Agni is deformed.

The food comprises six tastes. Every taste influences the Agni in its own way. Bitter, sour and salt being Agni-dominant tastes are Agni-enhancers. The Pungent taste being Vayu and Akasha dominant and light is also usually Agni-promoter. Sweet and astringent tastes are Prithvi-dominant and so they dampen the Agni. The Agni may be polluted by the overuse of any of the single tastes. Bitter, pungent and astringent tastes are Vayu promoters so the overuse of these tastes makes the Agni odd and consequently the food is digested sometimes and not digested at other times.

It is usually believed that the mild Agni causes all the diseases. However this is not wholly true. The misconception is due to the following stanza

whose first quarter has been attended to with a preference and out of context.

Rogah sarvepi mandegnou sutaramudarani tu. Ajeernashchanmalin-airshchannairjayante malasanchayati.

It has been explained here that diseases are caused by the mildness of Agni, use of polluted food or accumulation of scum in the body. Thus Mandagni alone is not the root cause of all diseases. Other causes are also important which distort the Agni and create diseases. Charak Samhita gives elaborate description in the regard: **"Abhojanadajeernatibhojanadw-ishamashanat.**

Asatmyagurusheetatirookshasand urshtabhojanat.

Virekanamana snehavibhramad Vyadhikarshanat.

Deshakalartuvaishamyadweganam cha vidharanat. Durshyatgnih.."

Here generally all the causes have been named which distort the Agni, causing disease. Dampening of Agni is also included in Agnidosha. Thus by the consideration of causes and accordingly adopting protective measures, the Agni may be prevented from going distorted and creating diseases.

The first cause is the absence of meals. Eating too little, abandoning meals, excess of fasting renders the Agni mild, so by not taking of food Agni becomes evil. Similarly, eating less makes the Agni evil which fails to digest more food. So eating less than requisite or remaining without having food are both the causes of distorting the Agni and hence must be avoided.

Indigestion also causes distortion of Agni. The ingested food is made assimilable by the Jatharagni and then Bhootagni and Dhatwagni accomplish complete digestion and nutrition of the body.

If any hindrance occurs in above then the food remains undigested, causing indigestion. Indigestion aggravates all the three Doshas simultaneously and creates diseases.

Overeating also causes distortion of Agni. The food being in excess, the Agni fails to digest it and the undigested food causes disease. Overdrinking of water also belongs to this clause.

**Atiyogena salilam trishyatopi proyojitam.
Prayati shleshma Pittam cha jwhaitasya
Visheshatah.**

The Agni becomes bad by excess of water and it should not be drunk in excess even if one is extremely thirsty, especially during fever because this immediately promotes Kapha and Pitta Doshas.

'*Rte sharannidaghabhyam pibetswasthopi chalpashah*' except in summer and 'Sharad even healthy person should drink water little by little.

Uneven eating is another cause of the distortion of Agni, '*Vishamam bahu valpam Vapyaprapateetakalayoh*' i.e. overeating, undereating, eating before the time and eating after the lapse of the regular time is called uneven eating. In normal life, it is very difficult to avoid uneven eating. The food being delicious, one tends to overeat and the same being insipid one tends to eat as little as possible. Moreover, it has become almost impossible to observe the regular meal times. It is generally common for the housewives to eat much after the due times. If uneven eating occurs rarely then the body will manage it and protect itself. However, if uneven eating is frequently done then the Agni will be distorted quickly.

Asatmya (unused) food is also a main cause of distorted Agni. '*Yadatmani nopashete tadasatmyam*' i.e. the food which is not relished and wholesome also causes distortion of Agni. The same holds for heavy to digest food and chilled food. The power of Agni proves insufficient to digest the heavy food and use of chilled food necessitates waste of heat in raising their temperature to suit the body. Similarly, use of extremely rough substances also becomes a cause of distorted Agni.

There is no wonder if the use of stale, fly-infested, unclean, dusty or mouldy food causes distortion of Agni.

Excess of Virea, Chanaman and Sneha also causes the distortion of Agni. If the Doshas do not emerge from the upper channel or lower channel and remain dormant in the body or if greasy things are overeaten or are undigested and their required results do not materialize then also

the Agni becomes deformed.

Lingering of disease also causes deformation of Agni. In such conditions the patient is likely to use unwholesome food and food to which one is averse. Chronic diseases and emaciation of Dhatus and blood so that the Agni becomes dulled.

The Agni may also be polluted by not taking food according to season, place and time. Use of cold things in cold countries and taking heavy food in rainy season etc. belongs to this category.

Withholding of urges also distorts Agni. Resisting faeces, urine, sneeze, belch etc. belong to this class. Obstruction of urges is invariably harmful.

The author of Ashtranghridaya says that one must satisfy the urges first in preference of any important work as well.

The Agni becomes polluted due to reasons cited above and causes various diseases. So the simple device of avoiding diseases is to protect it from going bad. So the above causes of pollution of Agni must be avoided.

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Jeevaniya is not merely a magazine, it contains scientific information about health care which is the essence of many treatises and practical experience of our learned physicians. Every issue of Jeevaniya is as good as a reference book on primary health care of a given aspect, organ. Subscribe for Jeevaniya in English and Hindi at merely Rs. 75/- per year to ensure healthy living in your family.

Jeevaniya Science Conundrum

Pt. Kashinath Gopal Gore, Lucknow

The science conundrum happens to be based on the back issues of Jeevaniya. Readers are requested to solve the conundrum on the basis of material published in Jeevaniya only. Vaidyas are requested to refrain from sending their solutions. However, they may send their experiences in an

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article form for publication in Jeevaniya.

1. Write the names of four general diseases of rainy season.

- (a) (b)
(c) (d)

2. What is the dominant taste found in the flora during the summer ?

3. What is the mechanism inside the body to control the temperature of the body when the atmospheric temperature is higher than the temperature of the body?

4. Which of the Panchakarmas are useful in Rains ?

5. When do pregnant women need more of lubrication in their meals ?

6. What is the effect of using

Dalchini in diabetics ?

7. What is the 'little brain' and what are its functions ?

8. State the symptoms of Sattvasara Purusha.

9. What are the initial symptoms of epilepsy.

10. Write the meanings of the following :

- (a) Amlapitta
(b) Gridhrasi
(c) Peenas
(d) Slip Disc

Godanti Bhasma

Material

Godanti, lemon, earthen cauldron with earthen plate, cowdung cakes.

Method of Preparation

Wash the Godanti with clean water. Immerse the Godanti in water in a large frying pan. Drop 2-3 pieces of cut lemon into it and heat the frying pan. After about two hours of boiling, take it down and let it cool. Then take out the pieces of Godanti, wash with clean water and dry. Then keep them in the earthen cauldron, cover the cauldron with the earthen plate and keep it in a pit 3' x 3' x 3' and fill up the pit. Arrange the cowdung cakes over it and set fire. Let the fire rage for 12 hours. Thereafter, when the fire has died completely take out the cauldron and the Godanti Ash from it. Pound, powder and strain with a piece of cloth and collect in a clean phial.

Uses

Useful in Headache, fever, coryza and bodyache.

Dosages

Children : 4-6 decigram with honey and holy basil juice thrice a day.

Disease and Astrology

Cancer and Health



Pt. K. G. Gore

The sign of Cancer extends upto the last quarter of Panarvasu and entire Pushya and Ashlesha constelations. It is situated over the heart of the Kaal Purusha. The master of Cancer sign is Moon and is feminine sexually.

It is temperamentally peripatelic and water - dominant. It is mild by nature and strong during the nights. Its glow is smooth and colour is pink. From first to fifth degree, Jupiter is high and first to twenty-eighth degree, Mars is mean. The colour of Cancer is white. Its temperament being noble, people under its influence happen to be sweet-tongued and have several friends.

Persons influenced by it are short in size and have long necks. Moon, jupiter, venus and Ketu happen to be strong in this signs. Sun, Mars, Pluto, Saturn & Rahu become weak in this.

The Cancer sign being watery, persons influenced by it soon reflect the influence of external circumstances. Generally the body is weak and lean. Chest and stomach are lean.

Such persons have abdominal problems. Their digestive system does not function properly. Tumour, cancer etc are probable. Such people invariably feel that they are indisposed. Respiratory system too could be defective. Treatments pertaining to the element Agni (fire) could be beneficial. As per need, treatments pertaining to the element Vayu (air) could also be helpful. The Cancer sign causes Kapha and this should be borne in mind while prescribing medicines.

Charitable Dispensary & Research Centre



Sri Ashok Priyadarshi looking at the list of Doctors affiliated with Charitable Dispensary

Jeevaniya Society has established a Charitable Dispensary and Research Centre in its premises to popularise Indian systems of Medicine (ISM) and to enhance self reliance in Primary Health Care of poor people. Homeopathy & Allopathic systems have also been included in this dispensary, besides Ayurveda so that a comprehensive system of

medical care may be developed by interaction of these systems. This interaction system shall be especially used for chronic diseases.

The dispensary was inaugurated by Dr. S.C.Rai, Mayor of Lucknow and a famous surgeon. Famous physicians of different pathies like Prof.S.R.Naik of SGPGI, Vd (Prof.) S.K.Mishra, Vd.S.A.Khan, Dr.C.S.Sambi of Dental College,

Dr.Renu Mahindra of Homeopathic college etc. shall be available for consultation. Some Ayurvedic medicines have been manufactured by Vaidyas involved with Jeevaniya and some drugs have been gifted by drug manufacturers.

The dispensary is functioning in the evening daily. A four day exhibition on 'Health, Development and Science' was also organised on this occasion. Useful information on Health, Science, Environment, Housing and Energy were provided through the exhibition. Stalls of Handicrafts and Books were also arranged besides stalls of drug manufacturers.

In his inaugural speech Dr. S. C. Rai emphasised the need of intensive research in Ayurveda. The exhibition was inaugurated by Shri Ashok Priyadarshi, Secretary to the U.P. Governor. He expressed that the role of voluntary organisations is very important towards achieving 'Health for All by 2000 AD.'

Presiding over the inaugural function Sri Lov verma, Secretary, Family Welfare, U.P.Govt praised the Jeevaniya Society for its leading role in various health care programmes.

Vd.K.K.Thakral, Director Ayurved was a special guest of the function. He felt that people are not aware of their rich



Dr. S. C. Rai, Mayor of Lucknow giving the inaugural speech

heritage in Ayurveda. Mayor Dr. S. C. Rai assured to put statues of Shushurta and Charaka in Lucknow.

On the 31st March, the Concluding function was organised in which a slide show on ' Useful Medicinal Plants in our Daily Life ' was presented by Vd.(Prof.) S.K.Mishra. He

give useful information about many plants.

Shri Alok Sinha, Secretary Science & Technology, on this occasion highlighted the role of Science & Technology in social progress. He felt sorry that despite progress in this field, we have not been able even to provide safe drinking water to

all. Praising the Jeevaniya Society for its role, he expressed that Society shall be able to create a movement for self reliance in Primary Health Care.

Prof. M.S.Sodha, Ex-Vice Chancellor of Lucknow University praised the Jeevaniya Society for its broad interpretation of Science & Technology. He was hopeful that society shall be organising such awareness programs in future

also. Prof sodha emphasised that our development will not be complete unless we have been able to eliminate problems of poor people. Various Doctors, Scientists and other important citizens were present on this occasion. A lot of people are getting benefitted by this dipensary.

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Name of Book : Banned and Bannable Drugs

Pages : 157

Publisher : Voluntary Health Association of India
40, Institutional Area, South of IIT
New Delhi- 110016

India must feel proud that it has world's third largest medical manpower and its pharmaceutical industry is one of the best in developing countries. However, there are far too many; 80,000 formulations in the market, while India took a lead in bringing out an extra-ordinarily progressive report on Drug policy called the Hathi Committee. This report was so inspiring that countries in south like Bangladesh set up their drug policy on basis of this report. But the policy in india remains static and situation has deteriorated further in the last few years due to new economic policies. On one hand there are so many formulations, many of these are useless and some even hazardous, shortage of essential drugs is being felt by the needy consumers. Of the 80 top selling products, 23 (nearly 30%) are either irrational, or hazardous or both. An ORG survey conducted in 1993 and published in the book, about sales of some irrational drugs is horrible reading to a common man. One can find many drugs commonly used like Becosule, Electral, Corex, Novalgin, Vicks, etc and food products like Complian in the list. In spite of such a huge medical

Dangerous Medicines

manpower, half of the world's T.B. patients and one third of the world's leprosy patients are in India and they struggle to survive.

This book has been written as a response to increasing requests and demands from consumer and health groups and individuals for a list of drugs they should not prescribe or consume. This book has become necessary as medical personnels after completing their education face non-availability of unbiased drug information. In the absence of such information they have to depend solely on the propoganda literature of pharmaceutical companies.

Due to lack of effective drug control and drug legislation, about 20% or one of the five drugs tested are substandard and spurious. This results into a horrible scenario for poor people. Medical expenses by those who are most vulnerable to ill health and who have little purchasing power have resulted in medical loans as one of the major cause of rural indebtedness.

Medicines can not be treated as a mere profitable, yet unessential/commodity like cosmetics. Commercialization and pharmaceuticalization of health care has to be resisted. Refusing to prescribe and consume hazardous and irrational drugs is the first step in this effort.

Publication of this book is an effort to raise public awareness about the National Drug Policy in which the questions of withdrawal of hazardous and irrational drugs, drug control, drug legislation, adverse drug reactions, unbiased drug information have been raised. Hathi Committee have recommended a gradual shift to generic names but this had been blocked by big pharmaceutical companies through litigation and a final judgement of Supreme Court is awaited since May 1995. The new Drug Price Control Order (DPCO) of 1995 has further reduced the number of products under price control to 76 which were 343 in 1979. This step will not only result in price rise but also further increase the irrational and non-essential drugs and drug combinations in the market.

The book is divided into 13 chapters and besides giving details of banned, bannable and hazardous drugs it has given guidelines for consumer action. It has found the Bangladesh Drug Policy as model for withdrawal of Irrational and Hazardous drugs. In the annexures to the book, information prepared by Voluntary Health Association of India, the All India Drug Action Network and other groups is very useful for activists and common people.

Mad Cows Disease - Have we learnt the lessons?

Bharat Dogra

The mad cow disease (BSE or bovine spongiform encephalopathy) has affected a very large number of cattle in the United Kingdom and posed a serious threat to the food and farming system of that country. Serious health risks to human beings have created panic. Despite the very heavy costs - being estimated in financial terms in the billions of pounds - of this tragedy, it is not at all clear whether even after paying such a heavy price, the right lessons have been learnt.

Although more than one explanation of the origin of this disease are available, the most likely cause goes back to the terrible mistake of agribusiness of mixing offal (the parts of a slaughtered animal like intestines and feet which are normally thrown away) in cattle feed. Sometimes the parts belonged to the same species which were being given this feed. According to Prof. Richard Lacey, one of the foremost experts on this subject, 55 percent of the concentrate added to the cereals for cattle feed was cattle in origin. Not only non meat eating animals were being forced to eat meat, in addition in some cases they were being forced to eat a cannibalistic feed. Such a shocking and unethical practice should have evoked mass

protest even without any specific warnings from scientists, but for nearly a decade most farmers who used this cattlefeed (not to mention the consumers who ate the beef) were not even aware the offals in the cattlefeed.

Such a grotesque and unnatural addition to cattlefeed was made due to the pressures to increase the profits of the meat industry while also keeping the supermarket price low for consumers. This politically convenient way of increasing agribusiness profits was found by making use of offals as the cheapest available proteins.

Highly intensive meat farming operations were resulting in huge mounds of offals as waste-products and rendering plants could grind them into a powder mixture. In this hurry to obtain high profits while also keeping the retail price low for consumers, agribusiness interests as well as politicians (both being very close to each other) were only too willing to ignore the safety aspects and the more obvious ethical aspects. In fact regulations forbidding the processing of dead animal carcasses for use as animal feed were dropped in 1980.

However, soon a number of scientists started giving

warnings that this type of feeding can cause BSE disease among cows, a disease which leaves the animal's brain full of holes and for which no cure is known. What caused greater alarm was their warning that human beings who eat the beef of BSE affected cattle can contact a killer disease called CJD (Creutzfeldt - Jakob disease) for which again there is no known cure. By 1988, the BSE threat was confirmed enough for the Ministry of Agriculture, Fisheries and Food to set up an advisory group on BSE (chaired by Sir Richard Southwood, a Professor of Zoology at Oxford). The Southwood Report recommended among other things 'that this (the rendering plant) method of disposing animal waste should be changed so as to eliminate these novel pathways for pathogens.'

However, government action continued to be guided mainly by economic interests while safety considerations got lower priority. As Richard Lacey said recently, 'Government action taken has been in response to media pressure, with the intention of reassuring the public rather than seriously endeavoring to get rid of the infection. The result is that beef that was probably infected was

exported all over the world and animals that might well have been infected were moved all over the country.'

Finally this year the entire world took notice of the threat to human beings when several persons, particularly children, were authentically confirmed to have died of CJD. This threw the huge British beef industry into a crisis. Beef exports from Britain were banned in several countries. Plans for very large scale slaughter of cattle have been announced. There is nervous uncertainty about how many human beings have already been affected.

It is unlikely that this threat is confined to U.K., both because of the trade in live calves and a U.K. type use of offals in cattlefeed in some other countries as well. For instance in the USA Neal Bernard of the Physicians Committee for Responsible Medicine told a news conference on May 1, 'All the factors that led to mad cow disease in Britain, and which we believe led to human death, are present in the US and have been for some time.' Bernard said, farming practices, in which cattle remains are rendered and fed to other cattle, are similar to those in place in Britain (Reuter report in The Financial Express May 2). Mark Epstein, President of Public Voice for Food and Health Policy, a leading consumer group has written to the US Food and Drug Administration Commissioner asking for an immediate ban on feeding cattle and sheep

remains to other cattle and sheep.

It is important for information to be collected and made available about the extent to which the practice of feeding animal wastes to cattle (or other herbivorous or domesticated animals) has prevailed in various countries and since when. This information should be monitored on an urgent basis by an international organization like the FAO. In fact an entire range of questions regarding how various animal wastes enter the food chains need to be examined carefully regarding their consequences and urgent steps taken to avoid further damage.

Wider questions need to be raised about the ethics of inflicting a cannibalistic diet on salient animals? Just because farm animals cannot speak, can we force them to eat any kind of dirt food, dressed up as proteins, or using some other nutrition jargon? Then there is also the question of how the animals are fed and kept. Pigs and poultry are kept in very tightly packed stalls and cages where they have very little contact with nature. They have to live in highly cramped and dirty conditions where it may become difficult to separate excreta from feed. Unable to move properly they are sometimes forced into hurting each other.

Gayle Hardy has described the condition in fish 'factory' farms in western countries. 'Fish are kept in stamped under water cages and fed fish pellets

containing antibiotics. Before they are bled to death they are starved for several weeks, because, it is less messy to gut a starved fish. About 20 percent die from afflictions such as skin ulcerations bacterial kidney infections and cancerous tumours.'

Examples such as these force us to ask whether apart from the specific case of BSE and CJD, several other diseases are not being spread by the way in which animals are being treated just to get the maximum profit from them. Lack of concern for animals and single minded pursuit of profits drives the food industry and in particular the meat industry to adopt the most cruel practices which can also prove harmful for human beings who consume animals products derived from diseased. In addition we should be compassionate enough to stop looking at this issue only from the point of view of health hazards to human beings. The suffering of animals is reason enough to stop all those practices of agribusiness which cause disease and avoidable pain to farm animals.

(N.F.S. India)

MASTRAMJI



STORY : PANDIT KASHINATH GORE
ILLUSTRATION : SANDEEP SEN

WORMS CAN ENTER THE BODY EVEN BY BATHING IN SUCH WATER !



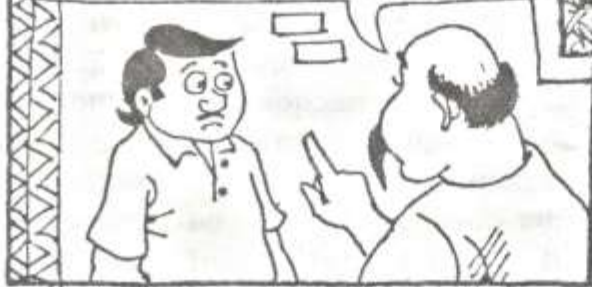
VDJI, YOU TOLD THAT WATER IS OFTEN DIRTY NOWADAYS.. WHAT SHOULD ONE DO FOR THIS..



PLEASE EXPLAIN IN DETAIL ..



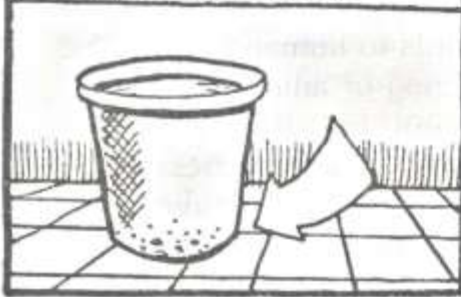
MASTRAMJI, THERE IS AN OLD SAYING WHICH RECOMMENDS DRINKING OF WATER AFTER FILTERING THROUGH A CLEAN CLOTH



"KEEP THE WATER IN SOME CONTAINER FOR A WHILE."



"CLAY OR OTHER HEAVY PARTICLES THUS SETTLE IN THE BOTTOM."



"IN ORDER TO MAKE THE WATER POTABLE IT SHOULD BE BETTER BOILED."



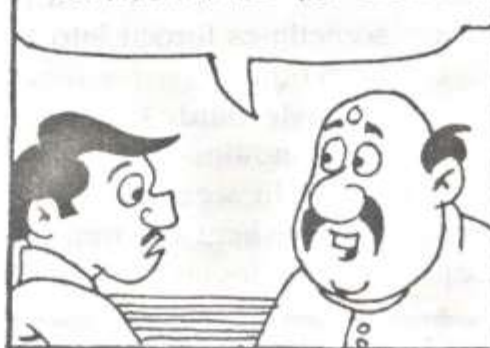
BOILING KILLS THE GERMS PRESENT IN THE WATER AND IT BECOMES FIT FOR DRINKING!



"LIME IS PUT IN THE WELLS TO CLEAN WATER."



NOW A DAYS BLEACHING POWDER OR CHLORINE IS USED..



"WATER ALSO GETS PURIFIED BY ADDING ALUM."



NOW A DAYS SEVERAL TYPES OF WATER FILTERS ARE AVAILABLE WHICH CLEAN THE WATER..



..IF THE WATER IS RATHER DIRTY, IT SHOULD BE BOILED, OR BLEACHING...



...POWDER ADDED AND FILTERED BEFORE DRINKING!



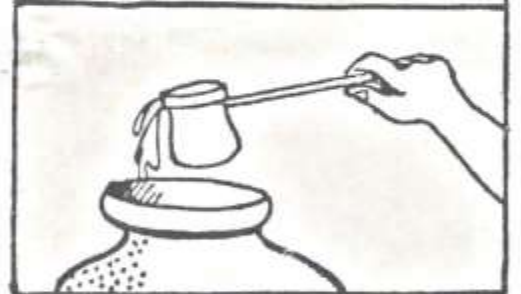
THREE FOURTH OF ALL DISEASES ARE DUE TO DIRTY WATER!



" DRINKING WATER SHOULD ALWAYS BE KEPT COVERED."



" USE A UTENSIL WITH HANDLE TO DRAW WATER FROM THE POT."



VDJI, BUT WHY SO?



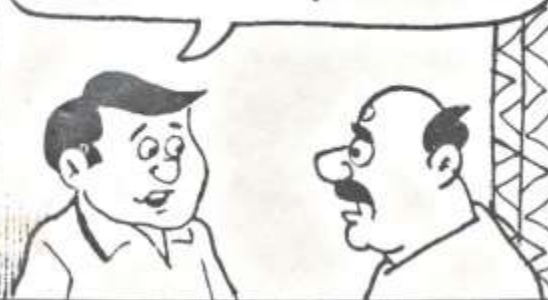
IF THE UTENSIL DOES NOT HAVE A HANDLE, WHILE TAKING OUT WATER



.. FINGERS WILL GET DIPPED IN THE WATER..



VDJI, WHAT IS WRONG IF THE FINGERS TOUCH WATER?



I WILL TELL YOU ABOUT THIS ANOTHER TIME.



MASTRAMJI THANKED THE VAIDYA AND WENT HOME.



Cont'd

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