"A full life despite Diabetes"

BITTER SWEETS IN INDIA

by **K. FRUCHT**

WHEN sixteen-year old Gian, the son of a farmer in the village of Palwal in the Indian state of Haryana, noticed that ants were attracted to his urine like to a grain of sugar, he found it amusing. Only when in addition to excessive urination he began to suffer from excessive thirst, combined with drowsiness, loss of weight, failing vision, and slow-healing cuts, it was considered necessary to send him to a health centre. There, the cause of his troubles could not be unambigously diagnosed and he was advised to go for tests to a hospital in nearby New Delhi. There, at the Irwin Hospital, he was eventually referred to its Metabolic Clinic where on the basis of the sugar contents in his urine he was diagnosed a diabetic.

Diabetes is as common in India as in other parts of the world. However, no clear epidemiological delineation of the problem could as yet be undertaken. It is estimated that the incidence of diabetes varies from one per cent in the general population to seven per cent among office-going adults.

The disease had been recognized since ancient times. The Indian physician Charaka, living in the second century A.D., has mentioned in his compilation "Charaka-Samhita" the sweetness of urine in addition to the symptom of polyuria, and another Indian physician, Sushruta, described in 500 A.D. the disease as Madhumeha—passing honey urine—with symptoms of thirst, foul breath, voracious appetite and langour. But in succeeding centuries other, more serious public health problems overshadowed the dangers from diabetes, and the need for treatment was ignored.

As if to make up for the long neglect of dealing with this disease, Professor Hari Vaishnava, Head of the Department of Medicine at the Maulana Azad Medical College and Associated Hospitals in New Delhi, is attacking the problems of diabetes with a brilliant mind and an overwhelming dynamism. Accompanying him on his round through the Metabolic Clinic at the Irwin Hospital can leave a visitor breathless.

Professor Vaishnava estimates that in New Delhi alone, out of a population of about three-and-a-half million, 60,000 persons suffer from diabetes ; however, only a fraction of them apply for treatment. At present, 300 to 400 old and new patients—some of them coming from as far as 200 miles—attend the weekly clinic, with the number of new patients rapidly increasing.

"Our problem is numbers", Professor Vaishnava explains pointing at the crowded waiting room where the patients move slowly, sliding along benches provided for their comfort : quite an unusual sight for an outpatient department of a hospital in India where people ordinarily squat on the floor or stand in line. Some of the patients have attended the clinic for many years, in bi-weekly visits, to obtain oral drugs or insulin or to undergo periodic check-up. New patients are instructed in the self-administration of drugs and in the dietary rules and exercises they have to observe.

"Most of our patients come from a very poor socio-economic background. This means that in almost 90% of cases, drugs and treatment have to be provided free of charge. When the clinic started, nine years ago, this was fairly easy to do from our own resources. What happened in fact was that all the rich diabetics were 'fleeced'. They were requested to instruct their chemists to provide us with insulin and other drugs for the poor patients. This custom still continues, but since 1966 the hospital is expected to provide the needed pharmaceuticals, otherwise we couldn't cope with the addition of approximately 50 new diabetic patients every month. This increase in patient load is due to the fact that we have become known for service. Those suffering from diabetes become aware that they can receive guidance from this clinic, free treatment and drugs, and there are not too many other places they could turn to. It is only natural that ordinary citizens and doctors alike should serve as best as they can to alleviate the lot of the destitute diabetic patients who come to this or another clinic."

The plight of the poor diabetic

To the question "What made you choose the field of diabetes as a life-time carrier ?" Professor Vaishnava simply answers : It was exactly the plight of the poor diabetic who either did not get treatment because he could not afford it, or whatever treatment he received was not up to the standards established by modern science."

While in the developed world the ratio of known to unknown diabetics is one to one, the ratio in India is one known diabetic to 10 unknown ones. Another startling figure is that which illustrates the high incidence of tuberculosis among diabetics. It is five times higher than the incidence among the general population who are not affected by diabetes. The most frightening finding of Professor Vaishnava, however, concerns the fact that in India nearly ninety per cent of the young diabetics die within five years from the onset of the disease merely for lack of insulin.

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Bitter Sweets—*(Contd. from p. 108)*

A study of the underlying causes of death in diabetes mellitus, conducted at Irwin Hospital by Professor Vaishnava (and one of the first ever undertaken in India), covered the period from 1963 to 1965, and investigated 891 hospital admissions due to diabetes, 122 of which resulted in death. An analysis of the causes of death revealed the following : diabetic coma (32%), renal diseases (15.5%), ischaemic heart disease 13.9%), cerebrovascular accidents (12.3%), diabetic gangrene are mainly attributed to the inordinate delay in seeking admission to hospital.

The incidence of ischaemic heart disease among Indian diabetics is generally lower than among diabetics in the Western countries. Also ketosis—a condition of the human body marked by excessive formation of carbon compounds such as found in sugar—is accepted to be much less common in cases of diabetes in the tropics than among diabetics in the West although the diet of the general population in the tropics is usually poorer in calories, and proteins, and richer in carbohydrates. Indian vegetarians in particular consume a diet which is very rich in carbohydrates, moderate in fats, and low in proteins as compared to Western standards because their diet chiefly consists of cereals like wheat rice and dal. Carbohydrate intake is still higher among South-Indian vegetarians since rice which contains as much as 82% carbohydrate, is their staple diet.

Regarding dietary problems of diabetics in India, Professor Vaishnava said : "You know what a diabetic would eat in a European country. He can easily increase his protein intake and reduce considerably his intake of carbohydrates. Not so the poor Indian diabetic. As a result of experimentation, we give him a certain latitude. He can take up to 60 per cent of carbohydrates provided he avoids concentrated carbohydrates like in sugar, sweets, honey and soft drinks with high sugar contents. You might not realize what great sacrifice this means for an Indian diabetic. Sweets are offered on all festive occasions, during the many religious celebrations as well as at weddings and other social gatherings. The temptation is often unsurmountable. But what makes the prescription of a strict diet more difficult is the fact that medical practitioners in this country do not always agree with each other, or with current scientific findings. In Punjab they will say Bengal grain should be eaten instead of wheat, while in Madras they'll tell you to eat wheat but no rice. Yoga people make a tall claim in the treatment of diabetes by exercises. I don't. It's all the same..."

Medical curriculum reforms

Professor Vaishnava is quite dissatisfied with the time allotted in the nearly one hundred medical schools in India to the teaching of the diagnosis and treatment of diabetes. "I consider diabetes as quite a universal disease. You will encounter it in whatever walks of life you find yourself, whether you are a doctor or not. And it does not make a difference whether a doctor is an eye specialist, a gynaecologist, a dentist or skin specialist, a tuberculosis expert or someone treating a case of gastroenteritis ; knowledge of diabetes is relevant in all these medical specialities. I sincerely believe that a doctor, in whatever sphere he might be working, has to know something about diabetes. I therefore feel very strongly that more importance should be accorded to the teaching of diabetes in all the medical schools of this country. At the moment we are studying this disease as it is written up in Western text book, mostly from England or the United States. There the treatment is based on a type of diet which diabetics can afford to consume in affluent countries ; this kind of treatment obviously does not hold true for our country, though other principles of treatment will remain the same. I have compiled a small booklet in collaboration with Dr. Subhash Chandra Gupta who is responsible for the diet portion. Called 'Facts for the patients of diabetes', the booklet is slanted to the needs of the diabetics in India. This publication constitutes a modest beginning in the education of diabetic patients."

Professor Vaishnava, despite his modesty, is not only a national celebrity to whom the Indian Medical Association recently awarded a gold medal for his work on the role of the liver in diabetes but also an internationally recognized authority on diabetes. Professor Vaishnava co-authored a great number of research papers, as for instance on "Hypertension in Indian Diabetics", "Liver Biopsy in Diabetes Mellitus" "A Clinico-Pathological Study of Renal Involvement in Indian Diabetics," "Cause of Death in Diabetes Mellitus'!, "Ischaemic Heart Disease in Diabetes Mellitus" and many more.

Although the validity of most of the research findings of Professor Vaishnava is quite universal, he never loses sight of the Indian reality. For instance, in a country where most weddings are "arranged" it is important that a physician explain to all parties concerned the precautions to be taken in case of a diabetic marriage. "But an astrologer will be consulted on such occasions more often than a physician." Professor Vaishnava's wife, whose parents were known diabetics, takes all necessary measures of control, and leads a normal life.

According to Professor Vaishnava "not more than two per cent of all diabetic cases in India are adequately controlled. The blame must be shared by both the medical profession, which has taken no pains to educate the patients, and the patients, who think that medication is enough and pay little heed to the general instructions of the physicians. I also wish to mention that although an Indian diabetic, observing the treatment schedule, will be fit for work, he will find himself bared from useful employment. The public needs yet to be educated to look upon a diabetic as a person not different from one who has been prescribed to wear eye glasses throughout his life. Through the World Health Organization I hope to be able to reach many more people than through my individual contacts, and not only the custodians of health but also diabetic patients and others, to make them aware of the problems set to public health by diabetes".

(*Courtesy* : *WHO*)